

# The Pearson Guide to Verbal Ability and Logical Reasoning

for the

# CAT

Second Edition



Nishit K. Sinha

The Pearson Guide to

# **Verbal Ability and Logical Reasoning for the CAT**

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Second Edition

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Nishit K. Sinha

**PEARSON**

Delhi • Chennai

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*To  
Papa and Ma  
Kumar Kalyan Prasad Sinha and Sanjila Sinha*

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# Preface to the Second Edition

I am happy to present the second edition of *The Pearson Guide to Verbal Ability and Logical Reasoning for the CAT* to readers. Since 2011, when I wrote the first edition of this book, many changes have occurred in the CAT. To cater to the requirements of the new changed CAT pattern and other MBA examinations, I have brought the following changes in this edition:

**(A) Verbal Ability:**

- (i) New practice exercises in Para Jumble, where one statement is required to be eliminated
- (ii) A new chapter on Paragraph Completion
- (iii) A new chapter on Idioms and Phrases
- (iv) A new chapter on Frequently Used Vocabulary

**(B) Logical Reasoning:**

- (i) A new chapter on Team Selection has been added
- (ii) LR questions on three levels—Foundation, Moderate and Advanced—has been added

**(C) A new CD with similar Graphical User Interface (GUI) to online CAT pattern is provided with the same level of difficulty.**

I am sure you will enjoy learning through this book and it will be an enriching experience for all users.

I will appreciate feedback related to the book and I can be reached at my email id at: nsinha.alexander@gmail.com

Happy Learning!

Nishit K. Sinha

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# Preface

The fact that there was no surprise element in CAT 2010 with respect to CAT 2009 was itself a surprise. Probably IIMs/CAT committee wanted to regain the ground that they might have lost during CAT 2009 online test glitches.

So everybody was expecting some changes in CAT pattern in 2011, and CAT committee obliged. The CAT changed again in 2011—with the introduction of (a) 2-section format instead of 3-section format and (b) sectional time limit. This is a welcome change as now the CAT is similar to other global exams like the GMAT and GRE. They also comprise only two sections and have sectional time limit.

This book covers everything that you need to prepare for the Verbal Ability and Logical Reasoning Section as per CAT 2011 pattern. Before we move ahead, let us see the cut-off percentile of different IIMs for CAT 2011 (for general category):

S. No	IIM's	Overall score	QA/DI	VA/LR
1	IIM-A	99	94	94
2	IIM-B	90	80	90
3	IIM-C	99.55	94.24	93.73
4	IIM-L	90	85	85
5	IIM-I	90	85	85
6	IIM Trichy	80	70	70
7	IIM Kashipur	75	70	70
8	IIM Udaipur	80	70	70
9	IIM Ranchi	90	70	70
10	IIM Shillong	***	65	65
11	IIM Kozhikode	85	55	55

\*\*\* Not given.

This book is distributed among six parts:

Part 1—Verbal Ability: This part of the book is dedicated to help you develop basics of grammar, vocabulary and usage of the same. There are ample practice questions.

Part 2—Verbal Reasoning: This part of the book is dedicated to reasoning based verbal questions. You will get introduced to types of questions, and then methods are elucidated with the help of example to develop problem solving approach. This part will cover Paragraph Jumbling, Critical Reasoning, Fact – Inference – Judgment inter alia.

Part 3—Reading Comprehension: In case of Reading Comprehension questions, a paragraph will be given followed by questions to be solved on the basis of information given in the paragraph. This part deals with identifying different types of questions and method to solve those. It also gives a new and unique way of dealing with Reading Comprehension, i.e., RC A Day—One RC passage to be solved in a day.

Part 4—Logical Reasoning: This part of the book deals with questions related with logic and reasoning. You will find detailed discussion on how to develop the skills required, solving these questions under the headings of particular chapter. I have also added new chapters like Blood Relation, Direction Decision Making and Series. This part also contains ‘LR A Day’—One LR set to be solved in a day.

Part 5—CAT Papers: This part is wholly dedicated to CAT questions of previous years. Solve these questions under time constraint and see where do you stand.

Part 6—Section Tests: This part of the book contains three Section Tests as per CAT 2011 pattern. Solve these questions and try to achieve minimum of net of 20 questions (net means, number of right answers – wrong answers).

Further to facilitate the online testing, a CD containing Section Tests is appended.

Though I have taken utmost care in preparing the manuscript and going through the subsequent proofs, there may be some error creped inside the book. Kindly mail me your valuable constructive advice on my email id: [nsinha.alexander@gmail.com](mailto:nsinha.alexander@gmail.com)

Nishit K. Sinha

# Acknowledgements

This book bears imprint of many people—my colleagues, my students and my teachers who have had a significant impact on my thought process and have generously extended help whenever I needed.

I am thankful to my present organization for giving me sufficient time to work on this project.

I would like to thank my teachers—Mr Anoop Singhania, Mr Vinay Singh, Mr M. K. Alam Bhutto, Mr Jairam Singh and Mr Arun Sharma.

I would also like to thank Mr Anil Kumar, Mr Saral Choudhary, Mr Sachin Goyal, Mr Shayank Bariar, Mr Manoj Kumar, Mr Parichay Shrestha, Mr Mohit Berry, Mr Sandeep Singh, Mr Siddharth Tripathi, Mr Tanzar Aftab, Mr Anup Singh, Mr Chandrabhal Rathod, Mr Abhishek Anand and of course Ma'am Parul Jaiswal for their valuable inputs.

My special thanks to my brothers—Ravi Shankar Prasad, Sharat Chandra Mayank, Amit Kumar and Vinit Kumar.

I extend heartfelt thanks to all my students, past and present, who have helped me to improve the content and for the presentation of the book and its new edition.

I would like to thank Pearson Editorial team for giving final shape to the book.

I may have forgotten some names here. I wish to express my gratitude towards all who have contributed in the making of this book.

Nishit K. Sinha

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# CAT Demystified

CAT stands for the Common Admission Test. It is a test conducted by IIMs for admission into several programs offered by them. Besides IIMs, there are a good number of colleges which accept CAT score in their first round of selection process. As of now, there are 13 IIMs offering PGP at following places: Ahmedabad, Bangalore, Calcutta, Lucknow, Indore, Kozhikode, Shillong, Ranchi, Rohtak, Raipur, Udaipur, Trichy, Kashipur.

## History of the CAT

For last almost three decades, since the CAT has been started, it has changed its colours many a time in terms of number of questions, sections asked and orientation of those questions. Here we will discuss the pattern of CAT 2000 onwards.

Chart 1

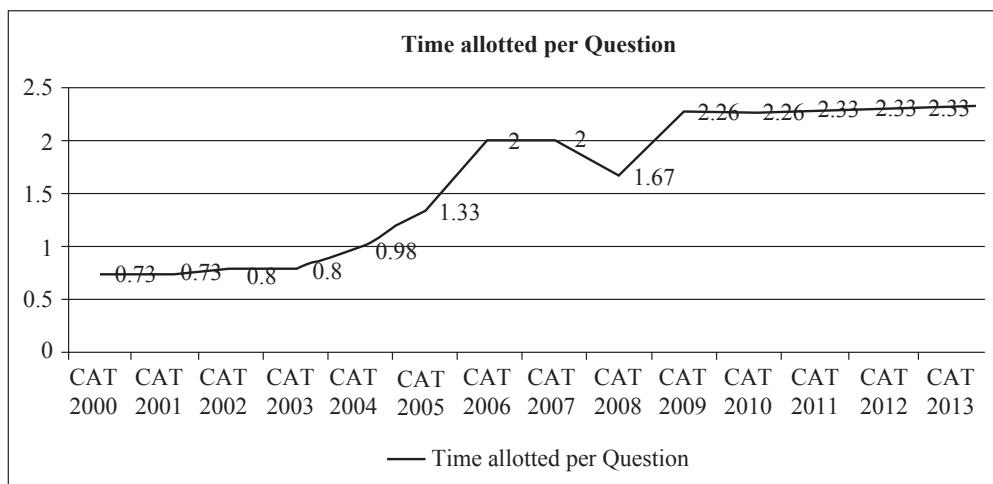
	<i>Number of sections</i>	<i>Total number of questions</i>	<i>Total Marks</i>	<i>Time allowed</i>
CAT 2000	3	165	N.A.	120 minutes
CAT 2001	3	165	N.A.	120 minutes
CAT 2002	3	150	N.A.	120 minutes
CAT 2003	3	150	N.A.	120 minutes
CAT 2004	3	123	150	120 minutes
CAT 2005	3	90	150	120 minutes
CAT 2006	3	75	300	150 minutes
CAT 2007	3	75	300	150 minutes
CAT 2008	3	90	360	150 minutes
CAT 2009	3	60	450 (scaled score)	135 minutes
CAT 2010	3	60	450 (scaled score)	135 minutes
CAT 2011	2	60	450 (scaled score)	140 minutes
CAT 2012	2	60	450 (scaled score)	140 minutes
CAT 2013	2	60	450 (scaled score)	140 minutes

## The CAT Online Exam

The CAT examinations held from 2011 to 2013 have two sections: (a) Quantitative Ability & Data Interpretation (b) Verbal Ability & Logical Reasoning with 30 questions in each section. It also have sectional time limit of 70 minutes for each section.

Before CAT 2004, the CAT did not mention how many marks one question carried? Marks carried per question were announced for the first time in CAT 2004.

Quite obvious from the above table that time allotted per question has risen sharply from CAT 2000 to CAT 2011. One possible conclusion drawn from here is that the CAT is focussing more on accuracy than speed, and secondly, it expects students to gain a certain level of competence across all the areas in a particular section. With the number of questions going down and time going up, students do not have much choice of questions to choose from.

**Chart 2**

## Sectional Breakups and Getting an IIM Call

One thing that has remained constant during this period of CAT 2000 - CAT 2010 is the number of sections and the way these sections have been joined—Quantitative Aptitude (QA), Logical Reasoning and Data Interpretation (LR/DI), and English Usage/Reading Comprehension (EU/RC).

Though CAT 2011 changed it all:

**Chart 3**

Year	QA	LR DI	EU RC	Total number of questions
CAT 2000	55	55	55	165
CAT 2001	50	50	50	150
CAT 2002	50	50	50	150
CAT 2003	50	50	50	150
CAT 2004	35	38	50	123
CAT 2005	30	30	30	90
CAT 2006	25	25	25	75
CAT 2007	25	25	25	75
CAT 2008	25	25	40	90
CAT 2009	20	20	20	60
CAT 2010	20	20	20	60
CAT 2011	30 (QA+DI)		30 (Verbal + LR)	60
CAT 2012	30 (QA+DI)		30 (Verbal + LR)	60
CAT 2013	30 (QA+DI)		30 (Verbal + LR)	60

One possible reason predicted for the 2-section format is the fact that the CAT is trying to emulate the standard global papers like the GRE/GMAT.

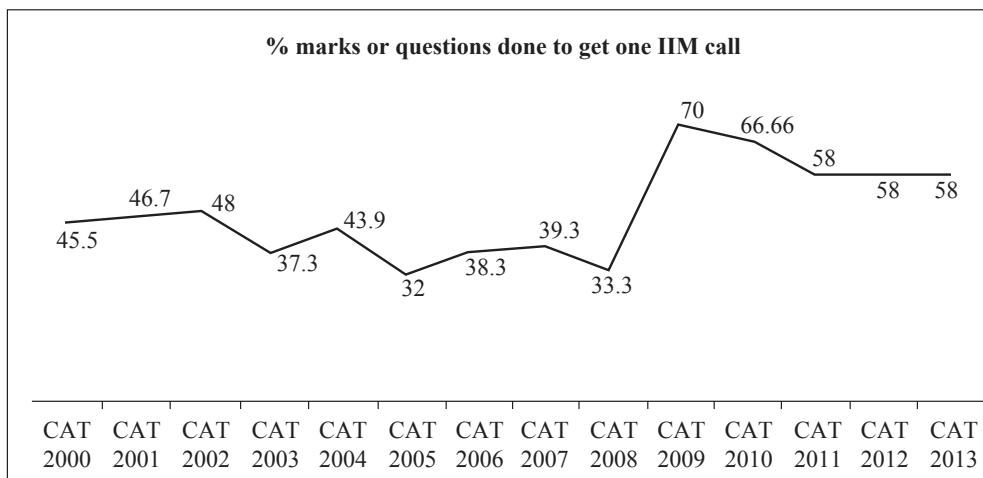
However, past CAT trends show that a student is required to get around 70% marks to get at least one IIM call (with clearing the sectional cut-off). The following table and bar chart give us some clarity regarding the same:

Chart 4

<b>Year</b>	<b>Total marks or questions</b>	<b>Marks/Qs required to get at least one IIM call</b>
CAT 2000	165	75
CAT 2001	150	70
CAT 2002	150	72
CAT 2003	150	56
CAT 2004	123	54
CAT 2005	150	48
CAT 2006	300	115
CAT 2007	300	118
CAT 2008	360	120
CAT 2009	60	42
CAT 2010	60	40
CAT 2011	60	35
CAT 2012	60	35
CAT 2013	60	35

Following line chart gives questions solved or marks required as a percentage of total marks or total questions (as applicable):

Chart 5



**Note:** Above calculation is based upon the data collected from the students who got IIM calls in that particular year.

So, to get at least one IIM call in CAT 2008, a student was required to get 33.33% marks out of the total with clearing the cut-off across the sections. Though in the online format of the CAT (since 2009), percentage questions to be done to get at least one IIM call has gone up, it is primarily because the exam is perceived to be easier in its totality than pen and paper based exams. A student might have got 10 easy questions out of 20 questions in a section.

If we convert the requirement of marks to be obtained from the above line chart into questions to be done, we get the following table:

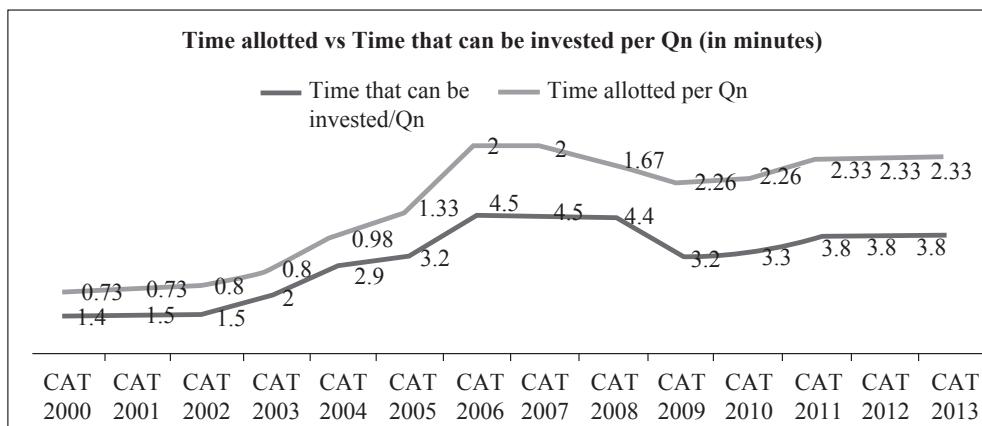
Chart 6

Year	Number of questions to be solved	Time allotted	Time invested per Qn
CAT 2000	85	120 minutes	1.4
CAT 2001	80	120 minutes	1.5
CAT 2002	81	120 minutes	1.5
CAT 2003	60	120 minutes	2.0
CAT 2004	42	120 minutes	2.9
CAT 2005	38	120 minutes	3.2
CAT 2006	33	150 minutes	4.5
CAT 2007	33	150 minutes	4.5
CAT 2008	34	150 minutes	4.4
CAT 2009	42	135 minutes	3.2
CAT 2010	40	135 minutes	3.3
CAT 2011	35	135 minutes	3.8
CAT 2012	35	135 minutes	3.8
CAT 2013	35	135 minutes	3.8

Chart 6—For CAT 2000 to CAT 2008, at 90% accuracy with 1/4 negative marking, these are the approximate number of questions to be done. For CAT 2009 to CAT 2011, net of these many questions is to be done.

To summarize this whole discussion till now, we will compare chart 2 with chart 6 and present them in a unified line chart given below (chart 7).

Chart 7



This line brings to us an important information—For CAT 2006, CAT 2007 or CAT 2008, even if a student has taken approximately 4.5 minutes to solve a question with 90% accuracy, s/he has got enough marks to get at least one IIM call (provided s/he clears the sectional cut-off too). For online formats for CAT, it is around 3.3 minutes per question.

So, it's more about accuracy now than speed.

# PART

# 1

## VERBAL ABILITY

- **CHAPTER 1**  
Grammar
- **CHAPTER 2**  
Sentence Correction
- **CHAPTER 3**  
Fill in the Blanks
- **CHAPTER 4**  
Confusing Words
- **CHAPTER 5**  
Frequently Used Vocabulary
- **CHAPTER 6**  
Idioms and Phrases

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# 1

# Grammar

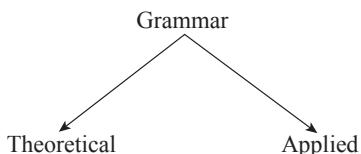
## LEARNING Objectives

After going through this chapter, you should have a thorough understanding of the following:

1. To get conceptual clarity on different topics of grammar and their usage
2. To be able to identify the grammatical errors in the questions
3. To increase accuracy in the questions that test grammar application

### ➤ ENGLISH GRAMMAR

English grammar can be divided into 2 broad categories:



When we talk of the CAT, it is the application of the grammar that is of relevance. The kind of questions that are asked are tricky so one needs to be clear with the fundamentals. In this chapter, we shall discuss the latest rules of British grammar in as much detail as relevant to the CAT. The examples given will make the application clear.

For the last couple of years, in the CAT, the English Usage chapter (composition as given in this book) comprise almost half of the English section. Therefore, the time given to the preparation of EU portion should be in proportion.

In this chapter, we are going to discuss:

- |                           |                      |
|---------------------------|----------------------|
| 1. Parts of Speech        | 4. Articles          |
| 2. Tenses                 | 5. Plural Noun Forms |
| 3. Subject-Verb Agreement |                      |

### □ 1. Parts of Speech

Parts of speech	Function	Examples	Usage
Verb	action or state	(to) be, have, do, like, work, sing, can, must	I like pizzas.
Noun	thing or person	pen, dog, work, music, town, London, teacher, John	Rohan lives in my house.
Adjective	describes a noun	a/an, the, some, good, big, red, well, interesting	My cat is big.
Adverb	describes a verb, adjective or adverb	quickly, silently, well, badly, very, really	He eats quickly.
Pronoun	replaces a noun	I, you, he, she, some	Mr D Singh is our director. He is clever.

Parts of speech	Function	Examples	Usage
Preposition	links a noun to another word	to, at, after, on, but	He went to movie on Monday.
Conjunction	joins clauses or sentences or words	and, but, when	I like dogs and I like cats.
Interjection	short exclamation, sometimes inserted into a sentence	oh!, ouch!, hi!, well	Hi! How are you?

Let us see some of these one by one

## □ Noun

A **noun** is a word used to name a person, animal, place, thing, and abstract idea.

A noun can function in a sentence as a subject, a direct object, an indirect object, a subject complement, an object complement, an adjective or an adverb.

## □ Noun Gender

Many common nouns, like “engineer” or “teacher,” can refer to men or women. Once, many English nouns would change form depending on their gender. For example, a man was called an “author” while a woman was called an “authoress”—but this use of **gender-specific nouns** is very rare today. Those that are still used occasionally tend to refer to occupational categories.

## □ Noun Plurals

Most nouns change their form to indicate number by adding “-s” or “-es” in good number of cases.

Other nouns form the plural irregularly. For example, plural of ox is oxen. We will discuss more about plurals in the next pages of this chapter.

## □ Possessive Nouns

In the possessive case, a noun or pronoun changes its form to show that it owns or is closely related to something else. Usually, nouns become possessive by adding a combination of an apostrophe and the letter “s”.

Possessive case of a singular noun that does not end in “s” can be made by adding an apostrophe and “s”.

Possessive case of a singular noun that ends in “s” can be made by adding an apostrophe alone.

Possessive case of a plural noun that does not end in “s” can be made by adding an apostrophe and a “s”.

Possessive case of a plural noun that *does* end in “s” can be made by adding an apostrophe.

## □ Types of Nouns

### Proper Nouns

Proper noun represents the name of a specific person, place, or thing. The names of days of the week, months, historical documents, institutions, organizations, religions, their holy texts and their adherents are proper nouns. A proper noun can be seen as the opposite of a common noun. A **proper noun** is written with a capital letter. Example, Saturday, May, Oxford University, Islam, etc.

### Common Nouns

A **common noun** is a noun referring to a person, place, or thing in a general sense. A common noun can be seen as the opposite of a proper noun. Example, Man, hotel, chair, etc.

### Concrete Nouns

A **concrete noun** refers to objects and substances, including people and animals, physical items that we can perceive through our senses, that mean concrete nouns can be touched, felt, held, something visible, smelt, taste, or be heard. A concrete noun is the opposite of abstract noun. Example, desk, cake, water, etc.

### Abstract Nouns

An **abstract noun** is a noun which names anything which *cannot* perceive through five physical senses. It is opposite of a concrete noun. Example, happiness, knowledge, kindness, etc.

### Countable Nouns

A **countable noun** is a noun with both a singular and a plural form, and it names anything (or anyone) that can be *counted*. A countable noun can be made plural. Countable nouns are the opposite of non-countable nouns and collective nouns. Example, pens, bottles, trees, men, etc.

### Non-Countable Nouns

A **non-countable noun** (or **mass noun**) is a noun which does not have a plural form, and which refers to something that could (or would) not be usually counted. A non-countable noun always takes a singular verb in a sentence. Non-countable nouns are similar to collective nouns, and are the opposite of countable nouns. Example, furniture hair, coffee, ink, etc.

### Collective Nouns

A **collective noun** is a noun naming a group of things, animals, or persons. One can count the individual

members of the group, but usually group is seen as a whole and generally as one unit.

It is important to be able to recognize collective nouns in order to maintain subject-verb agreement. A collective noun is similar to a non-countable noun, and is roughly the opposite of a countable noun. Example, army, class, crew, jury, family, etc.

## □ Pronoun

Pronouns are words used in place of noun or other pronoun. Pronouns like “he,” “which,” “none,” and “you” are used to make sentences less cumbersome and less repetitive.

Grammarians classify pronouns into several types, including the personal pronoun, the demonstrative pronoun, the interrogative pronoun, the indefinite pronoun, the relative pronoun, the reflexive pronoun, and the intensive pronoun.

### Personal Pronouns

A personal pronoun refers to a specific person or thing and changes its form to indicate person, number, gender.

Various ways in which they are used are illustrated below.

		<i>Subjective</i>	<i>Objective</i>
1st person	Singular	I teach Divya	Divya teaches me
	Plural	We teach Divya	Divya teaches us
2nd person	Singular	You teach Divya	Divya teaches you
	Plural	You teach Divya	Divya teaches you
3rd person	Singular	He/She/It teaches Divya	Divya teaches him/her/it
	Plural	They teach Divya	Divya teaches them

It is to be noted that ‘IT’ is an impersonal pronoun and is used for the following:

- a. Inanimate objects
- b. Animals without name
- c. Babies without name
- d. Human beings (when the gender is not clear).

Subjective Personal Pronouns	Objective Personal Pronouns	Possessive Personal Pronouns
Indicates that the pronoun is acting as the subject of the sentence.	Indicates that the pronoun is acting as an object of a verb, or preposition.	Indicates that the pronoun is acting as who owns a particular object or person.
“I,” “you,” “she,” “he,” “it,” “we,” “you,” “they.”	“Me,” “you,” “her,” “him,” “it,” “us,” “you,” and “them.”	“Mine,” “yours,” “hers,” “his,” “its,” “ours,” and “theirs.”

### Demonstrative Pronouns

A **demonstrative pronoun** points to and identifies a noun or a pronoun. “This” and “these” refer to things that are nearby either in space or in time, while “that” and “those” refer to things that are farther away in space or time.

The demonstrative pronouns are “this,” “that,” “these,” and “those.” “This” and “that” are used to refer to singular nouns and “these” and “those” are used to refer to plural nouns.

It is also important to note that “that” can also be used as a relative pronoun.

### Interrogative Pronouns

An **interrogative pronoun** is used to ask questions. The interrogative pronouns are “who,” “whom,” “which,” “what” and the compounds formed with the suffix “ever” (“whoever,” “whomever,” “whichever,” and “whatever”). Note that “who,” “whom,” or “which” can also be used as a relative pronoun.

“Who,” “whom,” and occasionally “which” are used to refer to people, and “which” and “what” are used to refer to things and to animals.

“Who” acts as the subject of a verb, while “whom” acts as the object of a verb,

### Relative Pronouns

A **relative pronoun** is used to link one phrase or clause to another phrase or clause. The relative pronouns are “who,” “whom,” “that,” and “which”. Compounds formed with the suffix “ever” (“whoever,” “whomever,” “whichever,”) are also relative pronouns.

### Indefinite Pronouns

An **indefinite pronoun** is a pronoun referring to an identifiable but not specified person or thing. An indefinite pronoun conveys the idea of all, any, none, or some.

Commonly used indefinite pronouns are “all,” “another,” “any,” “anybody,” “anyone,” “anything,” “each,” “everybody,” “everyone,” “everything,” “few,” “many,” “nobody,” “none,” “one,” “several,” “some,” “somebody,” and “someone.”

### Reflexive Pronouns

A reflexive pronoun refers back to the subject of the clause or sentence.

Reflexive pronouns are “myself,” “yourself,” “herself,” “himself,” “itself,” “ourselves,” “yourselves,” and “themselves.”

### Errors in Pronouns

1. Aditi bought an eclair and a pastry and she ate it quickly. [What does this ‘it’ refer to]. This is

## 1.6 ✦ Verbal Ability

- pronoun-antecedent (the noun for which we use pronoun) ambiguity.
2. As people age, the concern a person has change as well. This is pronoun-antecedent inconsistency.
  3. Nitika was surprised that despite working hard he did not get a promotion.  
Pronoun must agree with its antecedent in number and gender.

### □ Verb

A **verb** or compound verb express actions, events, or states of being. The verb or compound verb is the critical element of the predicate of a sentence.

### □ Example

**Monster bites** his victims on the neck.

The verb “bites” describes the action monster takes.

**I will marry** in 2013.

Here the compound verb “will marry” describes an action that will take place in the future.

Kapil Dev played in 3 world cups, but his diaries **were destroyed**.

In this sentence, the compound verb “were destroyed” describes an action which took place in the past.

### □ Adverb

An **adverb** can modify a verb, an adjective. An adverb indicates manner, time, place, cause, or degree and tries to answer questions such as “how,” “when,” “where,” “how much”.

Some adverbs are easily identifiable by their characteristic “ly” suffix; others are required to be identified by untangling the grammatical relationships within the sentence as a whole. Example, (1) Dennis is thinking quietly. (2) The ball is rolling slowly.

In the above examples, ‘quietly’ and ‘slowly’ are the adverbs qualifying the verbs ‘thinking’ and ‘rolling’ respectively. (3) Nayani is wearing a bright red shirt.

Here ‘bright’ is an adverb qualifying the adjective ‘red’.

### Conjunctive Adverbs

A **conjunctive adverb** joins two clauses together. Some of the most commonly used conjunctive adverbs are “consequently,” “finally,” “furthermore,” “hence,” “however,” “incidentally,” “likewise,” “meanwhile,” “nevertheless,” “next,” “nonetheless,” “otherwise,” “then,” “therefore,” and “thus.” However, a conjunctive adverb is

not strong enough to join two independent clauses without the aid of a semicolon.

### □ Adjective

An **adjective** describes, identifies, or quantifies a noun or a pronoun. An adjective usually precedes the noun or the pronoun which it modifies. Example, There goes a tall man. ‘Tall’ is an adjective describing the noun ‘man’.

### Possessive Adjectives

A **possessive adjective** (“my,” “your,” “is,” “her,” “its,” “our,” “their”) is similar to a possessive pronoun.

### Demonstrative Adjectives

The **demonstrative adjectives** “this,” “these,” “that,” “those,” and “what” are identical to the demonstrative pronouns.

### □ Preposition

A **preposition** connects nouns, pronouns and phrases to other words in a sentence. They show the position of a subject with its object. noun (s) and pronouns (s)

### □ Example

The book is **on** the table.

The book is **beneath** the table.

The book is leaning **against** the table.

The book is **beside** the table.

He is **at** the theatre.

Some of the usage of prepositions are given below:

#### 1. All, of

Do not use *of* after *all*, unless the next word is a pronoun.

All the men belong to the club.

All *of us* belong to the Club.

All *of us* boys belong to H10.

#### 2. Among/between

Among always implies more than two; between literally implies two. Between, however, is now often used for three or more items, when each is regarded individually.

The teachers distributed the sweets among the students. (more than two)

Distribute these sweets among the workers. (more than two)

The election commission is divided evenly between the two partners. (only two persons)

However, between may be used for more than two persons or things in order to bring each person or thing into the relation expressed.

a. While packing these glass sheets, be sure to place paper between them.

- b. The funds were distributed between SriLanka, China, Pakistan and India.
- 3. At/in**  
Both *at* and *in* are used in reference to places. Mostly *in* is used for larger places and at for smaller places.  
He lives at Patel nagar in Patna.  
He lives in Delhi.
- 4. In/into/in to**  
*In* implies the position within and *into* implies motion within to within from one medium to another. *In to* is a two word phrase in which *in* is an adverb.  
The correspondence is *in* the file.  
He walked *into* my office/He jumped *into* the pool.  
Varun came *in to* see me.
- 5. Besides, besides**  
*Besides* means in addition to; *beside* means by the side of.  
*Beside*, we also require your support for this movement.  
I sat *beside* river Nile.  
Besides being fined, he was also jailed.
- 6. On/upon/up on**  
Both *on* and *upon* are interchangeable, although *upon* is a little more formal and emphatic. In the two word phrase *up on*, *on* is an adverb.  
Please place the book *on* the table.  
His statements were based *upon* the scientific data.  
It will be necessary to step *up on* the school.
- 7. Some word like senior, junior, prefer, prior, superior, inferior, etc., are followed by to and not than.**  
He was senior *to* me in college.  
Health is more preferable *to* wealth.  
This cloth is inferior *to* that cloth.
- 8. Certain words are used in gerund (first form of a verb followed by -ing) along with prepositions.**  
For example, abstain, confident, fond, insist, keen, persist, prohibit, refrain, succeed, etc.  
I prohibited him from parking his car near the entrance. (and not “*to park*”)  
She is confident of speaking English within six months. (and not “*to speak*”)  
I abstain from drinking on Tuesday. (and not “*to drink*”)  
He worked hard and succeeded in securing good marks. (and not “*to secure*”)
- 9. Certain words are used in gerund without a preposition if followed by the first form of a verb. For example, avoid, enjoy, help, dislike, help, stop, remember, etc.**  
He enjoys playing cards. (and not “*to play*”)  
Stop writing as the time is over. (and not “*to stop*”)  
I dislike playing with Raman. (and not “*to play*”)  
Many people avoid drinking before their superiors. (and not “*to drink*”)
- 10. Certain words are followed by different preposition in different contexts. For example:**  
I agree *with* Mr Saxena.  
I agree *to* your proposal.  
In the above example, the word ‘*agree*’ is used with two different prepositions, with and to. ‘*Agree with*’ is used for agreement with a person, whereas ‘*agree to*’ is used for agreement to a plan, or proposal.  
Similarly, we angry ‘*with*’ a person, however we angry ‘*at*’ something.
- 11. Prepositions of Time: *at, on, and in***  
We use *at* to designate specific times.  
■ The train is due at 2:15 am.  
We use *on* to designate days and dates.  
■ Hari is coming *on* Monday.  
■ We’re going to Mussorie *on* 15th August.

## ▣ Tenses

	<i>Past Tense</i>	<i>Present Tense</i>	<i>Future Tense</i>
Simple Form	I walked	I walk	I will walk
Continuous Form	I was walking	I am walking	I will be walking
Perfect Form	I had walked	I have walked	I will have walked
Perfect Continuous Form	I had been walking	I have been walking	I will have been walking

## ▣ Subject–Verb Agreement

A sentence has the following properties:

- it contains a *subject*
- it contains a *verb*
- it expresses a *complete thought*

E.g., the sentence “*Japan prospers*” has a subject: “*Japan*”; a verb: “*prospers*”; and it conveys a complete thought or idea that makes sense.

Most sentences also have an *object* (receiver of the action); example, in the sentence “*Ram ate a Mango*,” the object is “*mango*. ”

**According to the concept, the verb in a sentence should be in agreement with the subject.**

## 1.8 ✦ Verbal Ability

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### Common rules and errors

**Rule 1:** The verb in a sentence should agree with the subject. If a subject is singular, verb should also be singular. And if the subject is plural, verb should also be plural.

Let us see some of the examples:

<b>Incorrect usage</b>	<b>Correct usage</b>	<b>Explanation</b>
There is no rooms vacant.	There are no rooms vacant.	The subject rooms is plural; therefore, the verb should be plural (i.e., are).
He like movies.	He likes movies.	The subject he is in the second person, and is singular; therefore, the verb should also be in the second person, and be singular (i.e., likes).
Neither Raman nor Harsh were there.	Neither Raman nor Harsh was there.	“Harsh” is singular, so the verb should be also.
Neither Raman nor the others was there.	Neither Raman nor the others were there.	“Others” is plural, so the verb should be also.
There are a variety of pens.	There is a variety of pens.	“Variety” is singular.
Here is wealth and beauty.	Here are wealth and beauty.	“Wealth and beauty” is plural.
He is one of the best officers who has graduated from here.	He is one of the best officers who have graduated from here.	“Doctors” is plural, so the verb should be also (i.e., “have”).
All of the team were there.	All of the team was there.	“Team” is singular, so the verb should be also.
All the players was present.	All the players were present.	“Players” is plural, so the verb should be also.

**Rule 2:** Pronouns should agree with their nouns in terms of (a) number (singular or plural), (b) person (first, second, or third), and (c) gender.

<b>Incorrect usage</b>	<b>Correct usage</b>	<b>Explanation</b>
Did everyone remember their job?	Did everyone remember his job?	Everyone is singular, so the pronoun should as well be singular.
It was them who did it.	It was they who did it.	The nominative case (I, you, he, she, it, we, you, they, who) is used following some form of the verb to be.
If I were him, I would go.	If I were he, I would go.	As above.
It is me.	It is I.	As above.
Whom will rule country?	Who will rule country?	
Who did you give it to?	Whom did you give it to?	“You gave it to he” does not sound right, while “you gave it to him” does.
He was in the same school as us.	He was in the same school as we.	Expand the sentence: “He was in the same school as we were in.”
It belongs to he and I.	It belongs to him and me.	The objective case of pronoun (i.e., me, you, him, her, it, us, you, them, whom) is used as the object of a preposition, such as “to”.
Sama hired he.	Sama hired him.	The objective case of pronoun (i.e., me, you, him, her, it, us, you, them, whom) is used as the object of a verb.
He is as busy as me.	He is as busy as I.	Expand the sentence: “He is as busy as I am busy, not “he is as busy as me am busy.”

However, there are following exceptions and expansions to this basic rule.

### □ Exception 1

The rule is not applicable to the sentences in the past and future tense. It means agreement applies only when the sentence is in present tense.

### □ Example

- 1(a) He drove to Gurgaon yesterday. (Past tense)
- 1(b) They drove to Gurgaon yesterday. (Past tense)

It can be seen that the subject is singular in 1(a) and plural in 1(b), however the verb used in each case is same.

- 2(a) They will go to watch a movie. (Future tense)
- 2(b) He will go to watch a movie. (Future tense)

It can be seen that the subject is singular in 2(b) and plural in 2(a), however the verb used in each case is same.

### □ Exception 2

No distinction is made in 1st person singular and 1st person plural.

### □ Example

- (a) I pray everyday.
- (b) We pray everyday.

### □ Exception 3

Case of I and You – I and You both take a verb “do not” (which is plural in nature) and not “does not” (which is singular in nature).

### □ Example

- (a) I do not smoke.
- (b) You do not smoke.

However, with ‘He’, which is 3rd person singular, “does not” is used.

- (c) He does not smoke.

### □ Exception 4

When two nouns or pronouns are joined with words like ‘including, as well as along with, together with, except’ etc then verb agrees to the first subject.

### □ Example

- (a) Sam along with his family members is going.
- (b) My teachers and my best friend is invited to my wedding party.

**Case 1** There are some nouns that might appear plural but they are actually singular, and hence, verb should be used accordingly.

- 1. Names of diseases, sports and field of study.

### □ Example

- (a) Diabetes is a common disease. (other Example: mumps, arthritis etc.)
- (b) Aerobics provides recreation. (other Example: athletics, olympics etc)
- (c) Mathematics is an interesting subject. (other Example: politics, civics etc)

- 2. Period of time, sum of money and unit of distance is singular.

### □ Example

- (a) One lakh rupee is a big amount.
- (b) Five kms is a long distance to be covered by foot.
- (c) Two hours is a long time to wait.

Hundred Rupees is kept on the table – Here hundred rupees is a sum of rupees.

Let us look at another example:

- (a) Rupees are deteriorating. This is also correct because we are not talking about ‘a sum of rupee’, but of rupees in holistic sense.
- (b) Dollars are inferior to pounds in value.

### □ Expansion 1

Collective nouns are considered singular (for example–team, family etc.) and they take singular verb. However, nouns of magnitude take plural verb.

### □ Example

- (a) The jury was unanimous in its decision.
- (b) The jury were divided in their decision. (because it shows division)

### □ Expansion 2

When subject contains both singular and plural noun tied by or/not, the verb should agree with the part of the subject nearer to it.

### □ Example

- (a) He or his friends have done it.
- (b) Has he or his friends done it?

### □ Expansion 3

When the subject of a sentence is composed of two or more nouns connected by and, we use a plural verb.

### □ Example

- (a) The principal and the secretary are out of town.
- (b) The principle and secretary is out of town.

[Here, the absence of an article ‘the’ before ‘secretary’ tells us that it is only one person acting as a principal and secretary]

### □ Expansion 4

Each, each one, either, neither, everyone, everybody, anybody, nobody, somebody, someone and no one are singular and require a singular verb.

### □ Example

- (a) Everybody is invited.
- (b) Somebody is there.

### □ Expansion 5

When a subject consisting of two singular nouns connected by ‘and’ refers to the same idea or outcome, a singular verb is used.

### □ Example

Bread and butter is what I eat.  
Time and tide waits for none.

### □ Articles

The three articles—*a*, *an*, *the*—are a kind of adjective.

### □ Use of A and An

*A* and *An* are called **indefinite** articles because they are used to refer to something in a less specific manner (an unspecified count noun).

We use *a* before singular count-nouns that begins with consonants (*a* cow, *a* barn, *a* sheep); we use *an* before singular count-nouns that begin with vowels or vowel-like sounds (*an* apple, *an* urban blight, *an* open door). Words that begin with an *h* sound often require an *a* (as in *a* horse, *a* History book, *a* hotel), but if an *h*-word begins with an actual vowel sound, use an *an* (as in *an* hour, *an* honor).

Examples—a *useful device*, *a university*, *a European* [*u* of these words actually sounds like *yoo* unlike to the *u* of *an ugly incident*].

a once-in-a-lifetime experience, a one-time hero [the words *once* and *one* begin with a *w* sound as if they were spelled].

### □ Use of ‘The’

*The* is called the **definite article** because it usually precedes a specific or previously mentioned noun.

*The* is used with specific nouns. *The* is required when the noun it refers to represents something that is one of a kind

The moon circles the earth.

*The* is required when the noun it refers to represents something named earlier in the text.

### □ Plural Noun Forms

The plural form of most nouns is created simply by adding the letter *s*.

- more than one snake—snakes
- more than one boy—boys

1. Words that end in *-ch*, *x*, *s* or *s-like* sounds, however, will require an *-es* for the plural

- more than one witch—witches
- more than one box—boxes
- more than one gas—gases
- more than one bus—buses
- more than one kiss—kisses

Please note that some dictionaries list “busses” as an acceptable plural for “bus.”

2. There are several nouns that have irregular plural forms. Plurals formed in this way are sometimes called **mutated (or mutating) plurals**. Some of the examples are given below:

- more than one child—children
- more than one woman—women
- more than one man—men
- more than one person—people
- more than one goose—geese
- more than one mouse—mice
- more than one ox—oxen

3. There are nouns that maintain their Latin or Greek form in the plural.

- more than one nucleus—nuclei
- more than one syllabus—syllabi
- more than one focus—foci
- more than one fungus—fungi
- more than one thesis—theses
- more than one phenomenon—phenomena
- more than one index—indices (indexes is acceptable)
- more than one criterion—criteria

4. A handful of nouns appear to be plural in form but take a singular verb:

- The news is bad.
- Gymnastics is fun to watch.

■ Economics/Mathematics/Statistics is said to be difficult. (“Economics” can sometimes be a plural concept, as in “The Economics of the situation demand that ....”)

5. Numerical expressions are usually singular, but can be plural if the individuals within a numerical group are acting individually:

- Fifty thousand dollars is a lot of money.
- One-half of the faculty is retiring this summer.
- Fifty per cent of the students have voted already.

6. Another set of nouns might seem to be singular in nature but take a plural form and always use a plural verb:

**A.**

- Her scissors were stolen.
- The glasses have slipped down his nose again.
- Other eggs include tongs, spectacles, trousers, shears, phiers, shoes, pants.

(They are always plural unless preceded by ‘a pair of’)

B. The use of adjectives as noun.

- The rich are arrogant.
- The intelligent are blessed.

7. There is a category of nouns that do not change in form.

### □ Example

cattle, sheep, police, poultry, gentry, vermin, etc.

- The police are running after a criminal.
- Cattle are grazing in the field.

### □ PARALLEL STRUCTURES

In parallel structures or parallelism different parts of a sentence should be in symmetry. The symmetrical order is maintained in a sentence by using the same verb form, same tense and other parts of speech should also be same, like noun or adjective.

Consider the sentences below:

1. I like to play guitar and singing. (Incorrect)  
I like playing guitar and singing. (Correct)
2. Mansi likes to watch televisition, ice-creams and carrom. (Incorrect)  
Mansi likes to watch television, eat ice creams and play carrom. (Correct)
3. The idea is fantastic but a danger. (Incorrect)  
The idea is fantastic but dangerous. (Correct)

The concept of parallel structures is very important in the English usage section and sometimes two to three options can be eliminated because they do not follow a parallel structure in a sentence. If you see a window in a room of which one pane is painted and the other is not. This will look non-symmetrical and to make it look symmetrical you would want to paint the other pane also. This is exactly what parallelism in language does, it makes the structure symmetrical!

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# 2

# Sentence Correction

## LEARNING Objectives

At the end of this chapter, you should have a thorough understanding of the following:

1. Types of questions asked in this chapter
2. Different types of error and how to identify those
3. Modifiers Error/Parallelism Error

CAT tests only a limited number of grammar error types. Questions from this chapter are asked in two ways:

### (A) Grammar Based Error

Almost all the questions asked from this type can be solved if a student is aware of a limited number of rules. Needless to say that one is not expected to master every grammar rules.

- i. Articles
- ii. Adjectives and Adverb
- iii. Subject-Verb Agreement
- iv. Pronoun Error

### (B) Usage Based Error

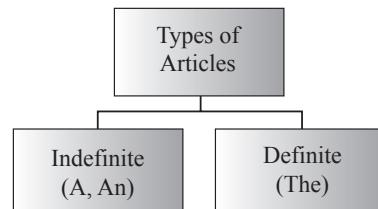
- i. Modifiers
- ii. Parallelism

Now we will see these one by one:

### ➤ GRAMMAR BASED ERROR

#### ▣ I. Articles

A or An or The, which are demonstrative adjectives, are called Articles.



#### □ Definite Article – The

‘The’ is a definite article because it points to a specific thing. It is used before proper nouns and also used when we believe that the hearer/reader knows exactly what we are referring to.

#### □ Indefinite Article – A or AN

A or An is the indefinite Article because it points to a nonspecific thing. Ex: A cow, A river, An elephant.

Usage of ‘A’ or ‘An’ is determined by the sound. A word beginning with a vowel sound takes ‘An’ before it.

#### □ Example

An honest politician, An hour, An umbrella, An heir, etc.

**Note:**

The words like hours, honest, heir begin with the consonant 'h', but they are pronounced with a vowel sound and the initial consonant 'h' is silent. Hence, the article 'An' precedes them.

Words beginning a vowel but pronounced with consonant sound take article 'a' before them.

**□ Example**

A University, A European, A Unicorn, A Useful Article, A union  
The words university, unicorn, union begin with a sound 'yu', so despite they start with a vowel 'U', article 'A' precedes them. Similarly, the words like we use 'A one-rupee note' instead of 'An one-rupee note' or 'A one-eyed man' instead of 'An one-eyed man'.

<b>Right</b>	A one-eyed man	A one rupee note	A one dollar bill
<b>Wrong</b>	An one-eyed man	An one rupee note	An one dollar bill

**Indefinite Article's Usage**

It is used:

**(a) In its initial numerical sense of one.**

- Ex: (i) Three feet make a yard.  
(ii) Not a word was uttered.

**(b) In the uncertain sense of certain.**

Ex: One fine evening a rat knocked at my door as if it were a human being.

**(c) In the meaning of 'any' to indicate an individual as the representative of a group.**

Ex: A student should pay respect to his/her parents.

**(d) To convert a proper noun into a common noun.**

Ex: A Kiran Bedi is required to curb the crime.

**Definite Article – The**

THE is called the Definite Article because it refers to some particular person or thing.

Ex: The office: that is some particular officer.

**Definite Article's Usage**

THE is used in the following cases:

**(a) With a particular person or thing or the one already denoted**

- Ex: i. I like the gift.  
ii. The shirt you wanted has been sold.

**(b) With a singular noun means to represent a whole class.**

Ex: i. The dog thrives on tender care.

Two nouns man and woman used in the general sense to denote the whole class never have either article.

Ex: Many a time woman is behind man's success.

- (c) With name of gulfs, rivers, seas, oceans, group of islands, and mountain-ranges.  
Ex: The Arabian sea, The Ganges, The Atlantic Ocean, etc.
- (d) With names of certain books  
Ex: The Bible, The Mahabharata, The Ramayana, etc.
- (e) Before names of things, unique of their kind although they are common nouns.  
Ex: The Volcano, The Sun, The Ocean, etc.
- (f) A common noun takes 'The' to make it an abstract noun.  
Ex: Ultimately the poet in him came to the forefront.
- (g) Before a proper noun only when it is qualified by an adjective or an adjectival clause.  
Ex: The great Satyajit Ray, The immortal Premchand
- (h) With superlatives  
Ex: The darkest night has a bright morning.
- (i) With ordinals  
Ex: Seth was the 3rd person to speak.
- (j) Before an adjective which works as a noun.  
Ex: The brave are on our side.
- (k) Before a noun to give the force of a superlative  
Ex: Compressor is the heart (the chief part) in an AC.
- (l) As an adverb with comparative  
Ex: The higher the better, The more they have etc.

**□ 'THE' (Article) is omitted in the following cases****(a) Before names of materials**

Ex: Copper is a soft metal.

**(b) Before proper nouns**

Ex: Mumbai is the Manchester of India.

When the article is used with proper nouns, they become common nouns.

Ex: This author is a second Sartre.

**(c) Before a common noun used in its widest sense.**

Ex: Only man has the power.

**(d) Before Languages**

Ex: He likes Devanagri.

**(e) Before abstract nouns used in a general sense**

- Ex: (i) Truth cannot be hidden for a long time.  
(ii) Wisdom shines from all sides.

**(f) Before words of relations like father, mother, aunt, uncle (and also cook and nurse)****➤ TEST YOUR LEARNING 1**

Fill up the blanks with an appropriate article

1. One should be \_\_\_\_\_ honorable man.
2. \_\_\_\_\_ Ganga is \_\_\_\_\_ legendary river.

3. \_\_\_\_\_ able man is not always rewarded in life.
4. It is honest man's policy to speak \_\_\_\_\_ truth.
5. We have no time to see \_\_\_\_\_ blue sky.
6. Aladdin had \_\_\_\_\_ magic lamp.
7. She returned after \_\_\_\_\_ hour.
8. \_\_\_\_\_ college will shortly close for the Holi holidays.
9. Benaras is \_\_\_\_\_ holy city.
10. Tomorrow \_\_\_\_\_ European will meet at the Taj.
11. Who says Portuguese is \_\_\_\_\_ easy language?
12. \_\_\_\_\_ French defeated the Britishers.
13. She had come in rains without \_\_\_\_\_ umbrella.
14. This is \_\_\_\_\_ untidy room.
15. The boys found \_\_\_\_\_ egg in the room.
16. If you happen to meet him, give him \_\_\_\_\_ message.
17. The traveler knows \_\_\_\_\_ way.
18. Srilanka is \_\_\_\_\_ island.
19. We should discuss \_\_\_\_\_ matter seriously.
20. He looks as expressionless as \_\_\_\_\_ owl.
21. The man is \_\_\_\_\_ honour to the institution.

## □ ii. Adjectives and Adverbs

Adjectives are words that describe nouns and pronouns. They may come before the word they describe (That is a cute baby) or they may follow the word they describe (That baby is cute).

Adverbs are words that modify everything but nouns and pronouns. They modify adjectives, verbs and other adverbs. A word is an Adverb if it answers how, when or where.

### □ Example

He walks slowly.

#### Rule 1

Generally if a word answers the question 'How', it is an adverb. If it can have an *ly* added to it, place it there.

### □ Example

He thinks slowly. (answers the question "how does she think?")

He is a *slow* thinker. (Slow does not answer how. So no *ly* is attached. *Slow* is an adjective here).

They performed *badly*. (Here *badly* describes *how* they performed).

#### Rule 2

A special 'ly' rule applies when four of the senses – taste, smell, look and feel – are the verbs. Do not ask if these senses answer the question how to determine if *ly* should be attached. Instead, ask if the sense verb is being used actively. If so, use the 'ly'.

### □ Example

Flowers smell (sweet or sweetly)?

Do the flowers actively smell with noses? No, so no *ly*. So it is flowers smell sweet.

The woman looked angry/angrily? – Did the woman actively look with eyes or are we describing her appearance, so, no *ly*. So it is "The woman looked angry".

The woman looked angry/angrily at the paintings? – Here the woman did actively look with eyes, so the *ly* is needed. So it is "The woman looked angrily at the paintings".

#### Rule 3

The word *good* is an adjective while *well* is an adverb.

### □ Example

He did a *good* job. (Good describes the job)  
He did the job *well*. (Well answers how)

#### Rule 4

When referring to health, always use *well*.

### □ Example

I am not feeling *well* today.

#### Rule 5

A common error—Using the wrong form for comparison.

### □ Example

To describe one thing, for example rich, as in, "he is *rich*". To compare two things, we should say *richer*, as in, "he is the richer of the two men". To compare more than two things, we should say *richest*, as in, "he is the richest of them all".

#### Rule 6

Never drop the *ly* from an adverb when using the comparison form.

Correct—She spoke *quickly*.

She spoke more *quickly* than he did.

Incorrect—She spoke *quicker* than he did.

**Rule 7**

*This* and *That* are singular, whether they are being used as adjectives or as pronouns. *This* points to something nearby while *that* points to something ‘over there’.

This cat is mine.

That cat is hers.

**Rule 8**

*These* and *those* are plural, whether they are being used as adjectives or as pronouns. *These* points to something nearby while *those* points to something ‘over there’.

 Example

*These* are mine. *Those* are yours.

**Rule 9**

Using than and then—Use ‘than’ to show comparison. Use ‘then’ to answer the question ‘when’.

I would rather go skiing than swimming.

First we went to play cricket; then we went skiing.

**➤ TEST YOUR LEARNING 2**

**Direction:** Decide whether each word in bold is being used correctly. If not, correct it.

1. Come **quick** or we will miss the bus.
2. My father drives the car so **slow** that I am afraid someone will hit the car from behind.
3. I have never been **more surer** of anything in my life.
4. Sama was the **best** of the two sisters.
5. You did that act so **good**.
6. Rumana felt **badly** about forgetting Faisal’s birthday.
7. This is the **worst** oil spill I have ever seen.
8. The jasmine has bloomed and smells very **sweet**.
9. You look **angrily**. What did I do?
10. She looked **suspiciously** at the man wearing the coat.
11. **These** tree looks as though it is infested with insects.
12. **Those** bushes need to be trimmed.
13. When was the last time Tanay had no allergy symptoms and felt **good**?
14. In the library, you have to be **more quiete** than when you are outside.
15. Priyanka felt **good** about getting her puppy.

16. She has a **more better** approach to solving that problem.
17. Which is the **worst**, a toothache or a head ache?
18. She reached **swift**, which made him feel badly about insulting her.
19. The herbs in the food tasted **bitter**.
20. Ria fought **bitterly** against her in-laws for custody of their daughter.

**➤ TEST YOUR LEARNING 3**

Fill in the blanks with “Few”, “A Few”, or “The Few”.

1. There are \_\_\_\_\_ friends who remain faithful in hard times.
2. He has only \_\_\_\_\_ friends.
3. \_\_\_\_\_ friends he has are really faithful to him.
4. \_\_\_\_\_ passengers were injured in the accident.
5. \_\_\_\_\_ passengers injured in the accident have been given first aid.
6. \_\_\_\_\_ books I had have all gone out of course.
7. \_\_\_\_\_ books would serve my purpose.
8. A good man has \_\_\_\_\_ enemies.

 **iii. Subject Verb Agreement**

**Essence of SVA lies with the fact that “Subjects and Verbs must Agree”.** The ‘subject’ of a sentence, noun or a pronoun, and the verb in the given sentence must agree in number. Singular subjects must be paired with singular verbs; and plural subjects, with plural verbs. Though it might appear very simple, but questions asked use tricky and complex constructions making it difficult to decode the Subject/Verb and its singularity/plurality.

Some of the examples of putting tricky questions are given below:

**i. Some words qualifying the subject given inserted between Subject and Verb.**

**For example**

- (a) *The child, together with his grandfather and his parents, is going to multiplex.*
- Given statement is correct. Subject here is child, and hence, ‘is’ is correct. The accompanying words “his grandfather and his parents” just provides the extra information.

- (b) Ritu, alongwith her friends, have gone to movie.  
This statement is **incorrect**. Subject here is Ritu, and hence, verb should be singular – has.

### ii. Usage of deflectors

#### For example

- (a) *His mastery of several sports and the social graces make him a sought-after coach.*

What is the subject here – ‘His mastery’ is the subject. Hence, verb should be ‘makes’.

In this statement, “*of several sports and the social graces*” is a deflector. These words are put just to confuse you in identifying the subject.

So the correct statement would be – *His mastery of several sports and the social graces makes him a sought-after coach.*

### iii. Presence of Collective nouns

Collective nouns like **family, majority, audience, and committee** are singular when they act in a collective fashion or represent one group. They are plural when the members of the collective body act as individuals.

#### For example

- (a) The flock of birds is flying north.

This sentence is correct as it mentions “flock of birds” as a singular entity. We are not talking about the direction of flying of one bird, but of the whole flock in unison. Hence, using singular verb ‘is’ is correct.

- (b) The team are always fighting amongst themselves.

This sentence is correct. Since the members of the team are not shown as a singular entity, rather they have been presented as individuals, hence, plural verb ‘are’ is required.

### iv. Use of ‘And’/‘Or’/‘Nor’

If ‘and’ has been used, verb should be plural.

#### For example

Maulik and Vikas are going to watch a movie. (Movie)  
If ‘or’/‘nor’ has been used, verb should be singular.

#### For example

- (a) Maulik or Vikas is going. (Correct)

### v. Use of ‘Neither – Nor’/‘Either – Or’

If two subjects are joined by ‘Either – or’ or ‘Neither – nor’, the verb should agree with the subject that is closer to it.

#### For example

- (a) Neither the principal nor the staff members were able to find the mistake.

This sentence is correct, as the verb follows the subject ‘staff members’ which is plural. Hence, ‘are’ is being used.

- vi. **Except for the pronouns** (few, many, several, both, all, some) that always take the plural form.

#### For example

Few were left alive after the flood.

- vii. **If two subjects are joined by and, they typically require a plural verb form.**

The cow and the pig are jumping over the moon.

- viii. **The verb is singular if the two subjects separated by and refer to the same person or thing.**

*Red beans and rice* is my mom’s favorite dish.

See more on the Subject–Verb Agreement in Chapter 1 – Grammar.

## iv. Pronoun Error

See Chapter 1 – Grammar for Pronoun Rules and Error.

## ➤ USAGE BASED ERROR

### □ Modifiers

A modifier is a word or a phrase that describes another word or phrase. The most familiar examples are adjectives and adverbs.

### □ Errors in Modifiers

Normally, errors in modifier are not the grammatical error; rather they are the error of English usage giving an altogether different meaning than what they are supposed to.

For example, consider the statement:

### □ Example 1

A signboard at a restaurant says:

We provide restrooms for the ladies that are clean and comfortable.

→ Analyzing this sentence, there is no grammatical error, but the phrase is wrongly placed giving rise to ambiguity in the meaning. Restaurant meant to propagate the message that they provide clean and comfortable restrooms for the ladies, but what is conveyed is entirely different message – that they provide the restrooms only to clean and comfortable ladies.

So the correct message should be—We provide clean and comfortable restrooms for ladies.

### □ Example 2

Incorrect usage—Walking back from the village my wallet was lost.

In the given sentence it appears that the wallet lost itself—which cannot happen.

#### **Correct usage**

- While ‘I’ was walking back from the village my wallet was lost.
- Walking back from the village, I lost my wallet.

### □ Example 3

Incorrect usage—Blinded by the storm, the car was steered in the wrong direction.

In this sentence, there is no clarity as to who steered the car.

Incorrect usage—Blinded by the storm, I or the driver steered the car in the wrong direction.

### □ Example 4

Read the following sentences and identify which one is correct:

- I only eat pizzas and burgers
- Only I eat pizzas and burgers
- I eat only pizzas and burgers
- I eat pizzas and burgers only.

#### **Solution**

Grammatically, all the four sentences are correct.

- 1st sentence conveys that all I do 24 hours is to eat pizzas and burgers.
- 2nd sentence conveys that only I (and nobody else on the earth) eat pizzas and burger.
- 3rd sentence conveys that I eat nothing except pizzas and burgers.
- 4th sentence means that I eat only pizzas and burgers.

So, it is important to choose the sentence that imparts logical and sensible meaning. Care should be taken to choose the most appropriate option as the answer.

Types of modifier errors:

There are two types of modifier errors:

#### **Misplaced Modifier Error**

- There may be an adjective, an adverb or a phrase which is inappropriately placed in a sentence causing a mismatch between the intended and perceived meaning of the sentence. There can be various ways to correct the sentence.

#### **Dangling Modifier Error**

- As name suggests, this type of moditier “hangs” without a subject. The word or phrase that modifies a word is not clearly stated in the sentence. To make such sentences sensible we need to insert a subject.

#### **Misplaced Modifiers**

Incorrect usage	Correct usage	Explanation
I could almost run all the way up the hill.	I could run almost all the way up the hill.	The first sentence does not mean what it is intended to mean. The modifier “almost” is misplaced.
I only want one.	I want only one.	Same as given above.

#### **Dangling Modifiers**

Incorrect usage	Correct usage	Explanation
While walking in the garden, Ravi arrived.	While <i>I was</i> walking in the garden, Ravi arrived.	The modifying phrase “while walking in the garden” does not refer to a particular noun or pronoun (i.e., it dangles).

#### **How to approach modifier question**

- Objective is to make the meaning clear.
- First step to identify the modifier whether its a phrase, adjective or adverb.
- Analyse the meaning intended to be conveyed.
- Modify the sentence by placing the modifier next to what it is modifying.
- Check if the ambiguity has been done away with (making meaning clear).

#### **□ Parallelism**

In parallel structures or parallelism different parts of a sentence should be in symmetry. The symmetrical order is maintained in a sentence by using the same verb form, same tense and other parts of speech should also be same, like noun or adjective.

Consider the sentences below:

- I like to play guitar and singing. (Incorrect)  
I like playing guitar and singing. (Correct)
- Mansi likes to watch televisiton, ice-creams and carrom. (Incorrect)  
Mansi likes to watch television, eat ice creams and play carrom. (Correct)

3. The idea is fantastic but a danger. (Incorrect)  
The idea is fantastic but dangerous. (Correct)  
The concept of parallel structures is very important in the English usage section and sometimes two to three options can be eliminated because they do not follow a parallel structure in a sentence. If you see

a window in a room of which one pane is painted and the other is not. This will look non-symmetrical and to make it look symmetrical you would want to paint the other pane also. This is exactly what parallelism in language does, it makes the structure symmetrical!

### ➤ PRACTICE EXERCISE

**Direction for questions 1 to 16:** In each of the following sentences, a part of the sentence is underlined. Beneath each sentence, four/five different ways of phrasing the underlined part are indicated. Choose the best alternative from among the four/five.

Q 1. Amar, Binod, Chand and me were all cited for contempt of court.

- (a) Amar, Binod, Chand and me were all cited
- (b) Amar, Binod, Chand and I were all cited
- (c) Amar, Binod, Chand and I were the ones cited
- (d) Amar, Binod, Chand and I were cited

Q 2. It is often better to try repairing an old vehicle than to junk it.

- (a) to try repairing an old vehicle than to junk it.
- (b) to repair an old vehicle than to have it junks.
- (c) to try repairing an old vehicle than to junking it.
- (d) to try to repair an old vehicle than to junk it.

Q 3. Vijayendra eats faster than me.

- (a) Vijayendra eats faster than me.
- (b) Vijayendra eats the fastest of us two.
- (c) Vijayendra eats the fastest of us both.
- (d) Vijayendra eats faster than I.

Q 4. I think everybody in this office works faster than me.

- (a) everybody in this office works faster than me.
- (b) everybody in this office works faster than I.
- (c) everybody in this office works more quickly than me.
- (d) everybody in this office works more quickly than I do.

Q 5. Neither of the two boys' explanations were satisfactory.

- (a) Neither of the two boys' explanations were
- (b) Neither of the two boys' explanation were
- (c) Neither of the two boys' explanations was
- (d) Neither of the two boy's explanations were

Q 6. I have to admit that she is smart of all the students.

- (a) she is smart of all the students.
- (b) she is smartest of all the students.
- (c) she is most smartest of all the students.
- (d) she is the smartest of all the students.

Q 7. I want Prakash and she to be the house captains for the rest of the year.

- (a) she to be the house captains
- (b) her to be the house captains
- (c) she to lead the project
- (d) her as the house captains

Q 8. You may appoint whoever you think is the best of us.

- (a) whoever you think
- (b) anybody you think

- (c) someone you think
- (d) whomever you think

Q 9. Neither the winner nor the sponsors is prepared to face the press reporters.

- (a) Neither the winner nor the sponsors is
- (b) Neither the winner nor the sponsors are
- (c) Neither the winner nor the sponsors was
- (d) Either the winner nor the sponsors is

Q 10. It was us who had left before he arrived.

- (a) we who had left before time he had arrived.
- (b) us who had went before he arrived.
- (c) us who had went before had arrived.
- (d) we who had left before he arrived.

Q 11. The MP rose up to say that, in her opinion, she thought the Women's Reservation Bill should be passed on unanimously.

- (a) rose to say that she thought the Women's Reservation Bill should be passed
- (b) rose up to say that, the Women's Reservation Bill should be passed on
- (c) rose to say that, in her opinion, she thought that the Women's Reservation Bill should be passed
- (d) rose to say that, in her opinion, the Women's Reservation Bill should be passed on

Q 12. Mr Pillai, the president of the union and who is also a member of the community group, will be in charge of the negotiations.

- (a) since he is a member of the community group
- (b) also being a member of the community group
- (c) a member of the community group
- (d) in addition, who is a member of the community group

Q 13. Since the advent of cable television, at the beginning of this decade, the entertainment industry took a giant stride forward in our country.

- (a) this decade saw the entertainment industry taking
- (b) this decade, the entertainment industry has taken
- (c) this decade, the entertainment industry had taken
- (d) this decade, the entertainment industry took

Q 14. Bacon believes that the medical profession should be permitted to ease and quicken death where the end would otherwise only delay for a few days and at the cost of great pain.

- (a) be delayed for a few days
- (b) be delayed for a few days and
- (c) be otherwise only delayed for a few days and
- (d) otherwise only delay for a few days and

Q 15. If you are on a three-month software design project and, in two weeks, you've put together a programme that solves part of the problem, show it to your boss without delay.

- (a) and, you've put together a programme that solves part of the problem in two weeks
- (b) and, in two weeks, you've put together a programme that solves part of the problem
- (c) and, you've put together a programme that has solved part of the problem in two weeks
- (d) and, in two weeks you put together a programme that solved only part of the problem

Q 16. Many of these environmentalists proclaim to save nothing less than the planet itself.

- (a) to save nothing lesser than
- (b) that they are saving nothing lesser than
- (c) to save nothing less than
- (d) that they save nothing less than

**ANSWERS****PRACTICE EXERCISE**

Q. No.	Answer						
1	(b)	2	(d)	3	(d)	4	(b)
5	(c)	6	(d)	7	(b)	8	(a)
9	(b)	10	(d)	11	(a)	12	(c)
13	(b)	14	(c)	15	(b)	16	(d)

3

# Fill in the Blanks

## **LEARNING Objectives**

After going through this chapter, you should have a thorough understanding of the following:

1. Types of questions asked
  2. Skills tested, i.e., reasoning and vocabulary
  3. How to eliminate the options in reference to the context

Fill in the blanks (FIB) questions have been a regular feature on the CAT and other examinations. Purpose of asking these questions is to check how much a student is comfortable with Vocabulary, and can s/he possess the reasoning ability required to check the compatibility between/among the words to be filled in the blanks.

There are different types of FIB questions asked on CAT. We will see it one by one:

## ■ Type 1: Single Blank Questions

Mostly, these questions are asked to test the vocabulary or preposition usage of a student. Usage of Vocabulary can be tested in two ways: (a) Meaning of word, (b) Appropriate usage of the word in the given context.

### □ Example 1

He deals vegetables these days



### *Solution*

This question requires the student to fill in the blanks the appropriate preposition. “Deals in” is the right usage. Hence, option (d) is the answer.

Example 2

Police \_\_\_\_\_ the thief red-handed.  
(a) Apprehended (b) Reprehended  
(c) Comprehended (d) Secluded

### *Solution*

Students can solve this question either by selection of the right option or by eliminating the unlikely options. In any case, student is required to know the meaning of the words given.

Apprehension means “An act of seizure” (among other meanings of apprehension)

Reprehension means “find fault with” or “blame”

Comprehension means “understand the meaning of”

Seclusion means “isolation”

Option (a) is most appropriate in this case. Hence, option (a) is the answer.

### □ Example 3

Not wanting to present an unwarranted optimistic picture in the board meeting, the CEO estimated the sales growth \_\_\_\_\_. *(XAT 2012)*

(a) Strictly      (b) Liberally  
 (c) Fancifully    (d) Pessimistically  
 (e) Conservatively

#### **Solution**

This question is testing you upon the appropriateness of the word in the given context. You may also observe that the options given are quite “day to day” usage words.

Let us understand the tone of the statement – CEO does not want to present an unwarranted optimistic picture. So the estimates of sales growth should be explained by a word having “not – so – positive” connotation.

Options (b) and (c) can be ruled out on this ground. Option (a) can be ruled out because it is inappropriate. Estimates are conservative or optimistic or pessimistic. Conservative estimation is cautious estimation – not going overboard – this is what CEO wanted to do. Hence, option (e) is the answer.

### □ Type 2: Double Blank Questions

Consider the following question:

There are two blanks in the following statement, and options are given in the next line. Choose the options that fills in the blanks appropriately.

When I went to meet him on \_\_\_\_ (a)\_\_\_\_\_, he was playing \_\_\_\_ (b)\_\_\_\_\_.  
 (a) Sunday, Monday, Tuesday, Wednesday  
 (b) Chess, Tennis, Football, Cricket.

What would be your answer?

This question can have any of the possible combinations as the answer as the two blanks are not logically related.

CAT and other B-school examinations will ask you questions to test either your vocabulary or reasoning ability to connect the theme.

### ➤ HOW TO APPROACH THE QUESTIONS

Every sentence contains hints that will help you select the correct answer. Each of the following strategies will help you decipher those hints, but remember that any given question might require you to use more than one approach:

1. Predict the best fit for the sentence
2. Identify the indicators
3. Use connotation
4. Select an answer

### □ 1. Predict the Best Fit for the Sentence

Before you look at the answer choices, think of a word that “Fits” the sentence. CAT sentence completion questions usually test the standard meaning of a word. Pay attention to the logic and context of the sentence. Try to predict a word to insert in the blank or blanks as you read the sentence, and then look for your word or a *synonym* of your word among the answer choices. A synonym is a word with the same or a similar meaning. You should also look for *antonyms*, which are words that have the opposite meaning of your predicted word. If you locate any words among the answer choices that have a meaning opposite to the word that you would like to insert in the blank, eliminate those answer choices.

### □ Example 4

Crestfallen by having done poorly on the CAT, Gaurav Karanwal began to question his abilities. His self-confidence was \_\_\_\_\_. \_\_\_\_\_

- (a) appeased      (b) destroyed  
 (c) placated      (d) elevated  
 (e) sustained

#### **Solution**

If somebody is crestfallen (despairing) and has begun to question herself, then his self-confidence would be destroyed. Hence, option (b) is the answer.

### □ 2. Identify the Indicators

Indicators tell you what is coming up. They indicate that the question setter is now moving to draw a contrast with something stated previously, or support something stated previously.

### □ A. Contrast Indicators

Why do we contrast two things? We contrast two things to point out how they differ. In this type of questions, we look for a word that has the opposite meaning of key word or phrase in the sentence. Following are some of the most common contrast indicators:

But	Yet
Despite	Although
However	Nevertheless

### □ Example

Although the warring parties had settled a number of disputes, past experience made them \_\_\_\_\_ to express optimism that the talks would be a success.

- (a) rash      (b) ambivalent  
 (c) scornful    (d) overjoyed  
 (e) reticent

"Although" sets up a contrast between what has occurred—success on some issues—and what can be expected to occur—success for the whole talks. Hence, the parties are reluctant to express optimism. The common word "reluctant" is not offered as an answer-choice, but a synonym—reticent—is. Hence, option (e) is the answer.

## B. Support Indicators

Supporting words support or further explain what has already been said. These words often introduce synonyms for words elsewhere in the sentence. Following are some common supporting words:

<i>And</i>	<i>Also</i>
Furthermore	Likewise
In Addition	For

## Example 5

Neha is an opprobrious and \_\_\_\_\_ speaker, equally caustic toward friend or foe—a true curmudgeon.

- (a) lofty                          (b) vituperative  
(c) unstinting                      (d) retiring  
(e) laudatory

### **Solution**

“And” in the sentence indicates that the missing adjective is similar in meaning to “opprobrious,” which is very negative. Now, vituperative—the only negative word—means “abusive.” Hence, option (b) is the answer.

## C. Cause and Effect Indicators

These words indicate that one thing causes another to occur. Some of the most common cause and effect indicators are

Because	For
Thus	Hence
Therefore	If, Then

## Example 6

Because the House has the votes to override a presidential

- veto, the President has no choice but to \_\_\_\_\_

  - (a) object
  - (b) abdicate
  - (c) abstain
  - (d) capitulate
  - (e) compromise

### **Solution**

Since the House has the votes to pass the bill or motion, the President would be wise to compromise and make the best of the situation. Hence, option (e) is the answer.

**Example 7**

Man has no choice but to seek truth, he is made uncomfortable and frustrated without truth—thus, the quest for truth is part of what makes us \_\_\_\_\_.

- (a) noble
  - (b) different
  - (c) human
  - (d) intelligent
  - (e) aggressive

### **Solution**

If man has no choice but to seek truth, then this is an essential characteristic of man. In other words, it is part of what makes us human. Hence, option (c) is the answer.

### Example 8

Though he claimed the business was \_\_\_\_\_, his irritability \_\_\_\_\_ that claim.

- (a) sound, belied
  - (b) expanding, supported
  - (c) downsizing, vindicated
  - (d) static, contradicted
  - (e) booming, affirmed

### *Solution*

If the business was not sound, his irritability would belie (contradict) his claim that the business was sound. Hence, option (a) is the answer.

## 3. Use Connotation

Each word expresses two things: a *definition* and a *connotation*. A *connotation* is a positive, negative, or neutral feeling that is implied by or associated with a word. Although context is the part of a sentence that surrounds a particular word or passage and determines its meaning, *connotation* refers to the emotion that is suggested by the word itself. For example, the adjective “thrifty” implies a positive connotation, whereas the adjective “cheap” implies a negative connotation. Both words have similar definitions, but very different connotations.

Using connotations can help you determine the correct answer or at least eliminate a few wrong answers.

## Example 9

Because of his \_\_\_\_\_, Rahul's guests felt very welcome and comfortable staying at his house for the weekend.

- (a) animosity
  - (b) hospitality
  - (c) determination
  - (d) wittiness
  - (e) severity

**Solution**

The sentence has a positive connotation-Rahul's guests feel welcome and comfortable. In addition, the transition "because" indicates that something that belongs to Rahul has caused his guests to feel welcome and comfortable. "Animosity" and "severity" have a negative connotation and "determination" has a neutral connotation. "Hospitality" and "wittiness" both have positive connotations, but "hospitality" best fits the context of the sentence. Hence, option (b) is the answer.

**4. Select an Answer**

Analyze the tone of the statements-look at the answer choices – and then try to predict an answer. Though you must consider all of the choices before you confirm your answer, even if your predicted answer is among the choices. The difference between the best answer and the second best answer is sometimes very subtle. When you think that you have the correct answer, read the entire sentence to yourself, using your choice(s).

## ➤ PRACTICE EXERCISE 1

**Direction:** Pick out the most effective pair of words from the given pair of words to make the sentence/sentences meaningfully complete.

- Q 1. The teacher must \_\_\_\_\_ the unique style of a learner in order to \_\_\_\_\_ it to the desired knowledge.  
 (a) advocate, direct  
 (b) perpetuate, develop  
 (c) appreciate, focus  
 (d) absorb, maintain
- Q 2. Not all countries benefit \_\_\_\_\_ from liberalization. The benefits tend to \_\_\_\_\_ first to the advantaged and to those with the right education to be able to benefit from the opportunities presented.  
 (a) equally, generate  
 (b) richly, downgrade  
 (c) suitably, ascribe  
 (d) uniformly, percolate
- Q 3. He has \_\_\_\_\_ sense of words. Therefore the sentence he constructs are always \_\_\_\_\_ with rich meaning.  
 (a) profound, pregnant  
 (b) distinguished, loaded  
 (c) terrific, tempted  
 (d) meaningful, full
- Q 4. He was an \_\_\_\_\_ Musician, had been awarded the George Medal during the second world war and \_\_\_\_\_ with the title of RaiBhadur.  
 (a) outstanding, popularize  
 (b) underestimated, declared  
 (c) accomplished, honored  
 (d) impressive, assigned
- Q 5. Whether it be shallow or not, commitment is the \_\_\_\_\_ the bedrock of any \_\_\_\_\_ loving relationship.  
 (a) expression, perfunctory  
 (b) foundation, genuinely  
 (c) manifestation, deep  
 (d) key, alarmingly
- Q 6. Many people take spirituality very seriously and \_\_\_\_\_ about those who do not worrying about them and \_\_\_\_\_ them to believe.  
 (a) think, criticizing  
 (b) pride, appraising  
 (c) rationalize, enabling  
 (d) wonder, prodding
- Q 7. Unless new reserves are found soon, the world's supply of coal is being \_\_\_\_\_ in such a way that with demand continuing to grow at present rates reserves will be \_\_\_\_\_ by the year 2050.  
 (a) consumed, completed  
 (b) depleted, exhausted  
 (c) reduced, argument  
 (d) brunt, destroyed

- Q 8. If you are a \_\_\_\_\_ you tend to respond to stressful situations, in a calm secure, steady and \_\_\_\_\_ way.  
 (a) resilient, rational  
 (b) obdurate, manageable  
 (c) propitious, stable  
 (d) delectable, flexible
- Q 9. Management can be defined as the process of \_\_\_\_\_ organizational goals and non-human resources to \_\_\_\_\_ Improve value added to the world.  
 (a) getting, deliberately  
 (b) managing, purposefully  
 (c) targeting, critically  
 (d) reaching, continuously
- Q 10. If you are an introvert, you \_\_\_\_\_ to prefer working alone and, if possible, will \_\_\_\_\_ towards projects where you can work by yourself or with as few people as possible.  
 (a) like, depart  
 (b) advocate, move  
 (c) tend, gravitate  
 (d) express, attract
- Q 11. The \_\_\_\_\_ playing of loud music has led the angry residents of this vicinity to file a police complaint and move court against the organiser's lack of \_\_\_\_\_ for the people's need for a peaceful neighbourhood.  
 (a) peaceful, thought  
 (b) abrupt, hope  
 (c) incessant, consideration  
 (d) fashionable, friendliness
- Q 12. The \_\_\_\_\_ of the chronic balance of payments deficit which has \_\_\_\_\_ the Finance Ministry under three Prime Ministers is very real.  
 (a) temptation, reviled  
 (b) understanding, menaced  
 (c) impact, underestimated  
 (d) dilemma, plagued
- Q 13. Britain for the present, is deeply \_\_\_\_\_ in economic troubles, and the economic future, heavily \_\_\_\_\_ looks uncertain.  
 (a) engrossed, responsive  
 (b) ingrained, skeptical  
 (c) saturate, enveloped  
 (d) mired, mortgaged
- Q 14. Our Constitution was based on the belief that the free \_\_\_\_\_ of ideas people and cultures is essential to the \_\_\_\_\_ of a democratic society.  
 (a) selection, concurrence  
 (b) interchange, preservation  
 (c) reversal, upholding  
 (d) dissemination, congruence
- Q 15. As this country has become more \_\_\_\_\_ industrial and internationalized, it has like all Western democracies in the \_\_\_\_\_ of the executive.

## 1.28 ✦ Verbal Ability

- (a) urbanized, role  
(b) objective, wealth  
(c) synthesized, efficiency  
(d) civilized, convenience
- Q 16. More is \_\_\_\_\_ of conditions of the tribals in Maharashtra than \_\_\_\_\_ conditions of those in the other parts of the country.  
(a) certain, the  
(b) known, of  
(c) aware, of  
(d) favourable, those
- Q 17. Although \_\_\_\_\_ is not a very desirable feeling we need a certain amount of it to \_\_\_\_\_ well.  
(a) anxiety, exist  
(b) grief, enjoy  
(c) impatience, preach  
(d) anger, define
- Q 18. Although he is a \_\_\_\_\_ person, he occasionally loses his \_\_\_\_\_.  
(a) quiet, power  
(b) cheerful, grief  
(c) balanced, temper  
(d) thoughtful, anxiety
- Q 19. In a \_\_\_\_\_ tone, the leader made a powerful \_\_\_\_\_ to the mob.  
(a) realistic, zeal  
(b) lower, conviction  
(c) loud, argument  
(d) soft, appeal
- Q 20. The tunnel was so \_\_\_\_\_ and congested, that we became \_\_\_\_\_.  
(a) long, enthusiastic  
(b) deep, cautious  
(c) dark, frightened  
(d) crowded, isolated
- **PRACTICE EXERCISE 2**
- Direction:** Pick out the most effective pair of words from the given pair of words to make the sentence/sentences meaningfully complete.
- Q 1. \_\_\_\_\_ the activities of moneylenders could have an adverse impact on those who \_\_\_\_\_ access to bank credit.  
(a) encouraging, enjoying  
(b) permitting, denied  
(c) confining, entitled  
(d) curbing, lack
- Q 2. The government has decided not to make any \_\_\_\_\_ changes in the country's tax \_\_\_\_\_.  
(a) sweeping, regime  
(b) transparent, hike
- (c) drastically, net  
(d) constitutional, revenue
- Q 3. The RBI has \_\_\_\_\_ a statement that the implementation of KYC forms should not lead to the denial of banking \_\_\_\_\_ to customers.  
(a) released, asset  
(b) issued, services  
(c) drafted, clearing  
(d) made, tariff
- Q 4. The new scheme \_\_\_\_\_ all persons with disabilities defined \_\_\_\_\_ the Disabilities Act.  
(a) discriminates, according  
(b) recognizes, beneath  
(c) profits, within  
(d) covers, under
- Q 5. A good management will decide not only the \_\_\_\_\_ for equipment but also its \_\_\_\_\_ for deciding priorities.  
(a) need, urgency  
(b) usefulness, utility  
(c) cost, value  
(d) requirement, necessities
- Q 6. \_\_\_\_\_ appears to be a small error in the beginning may turn out to be a \_\_\_\_\_ in the long run.  
(a) It, disaster  
(b) What, blunder  
(c) That, debacle  
(d) It, slip
- Q 7. Being very \_\_\_\_\_ in nature, he always uses his \_\_\_\_\_. skills.  
(a) adamant, soft  
(b) polite, basic  
(c) humble, experimental  
(d) mild, aggressive
- Q 8. Demand and supply do not \_\_\_\_\_ the same relationship as the one that \_\_\_\_\_ between height and weight.  
(a) possess, has  
(b) incur, is  
(c) defend, volunteers  
(d) bear, borne
- Q 9. If the system \_\_\_\_\_ to yield the desired result, try to \_\_\_\_\_ the whole procedure in the given sequence.  
(a) entitles, dump  
(b) ignores, reproduce  
(c) fails, reoperate  
(d) imitates, generate
- Q 10. He is so \_\_\_\_\_ in his approach that not a single point ever \_\_\_\_\_ his attention.  
(a) meticulous, escapes  
(b) casual, erodes  
(c) fanatic, brings  
(d) deliberate, attracts

- Q 11. Generally, \_\_\_\_\_ students \_\_\_\_\_ those who are mediocre.  
 (a) humble, surmount  
 (b) meritorious, surpass  
 (c) bright, overestimate  
 (d) studious, respect
- Q 12. \_\_\_\_\_ and \_\_\_\_\_ should not be tolerated in our country which boasts of ‘Ahimsa’ as its way of life.  
 (a) Politicking, elections  
 (b) Dishonour, efficiency  
 (c) Lethargy, procrastination  
 (d) Hatred, violence
- Q 13. He \_\_\_\_\_ a wrong act because it was \_\_\_\_\_ for him to do so due to circumstantial forces.  
 (a) compelled, necessary  
 (b) refused, dangerous  
 (c) did, avoidable  
 (d) committed, inevitable
- Q 14. Many teachers \_\_\_\_\_ the lack \_\_\_\_\_ for leaving the job.  
 (a) cited, reason  
 (b) explained, force  
 (c) claimed, understanding  
 (d) argued, culprit
- Q 15. Skeptics would not \_\_\_\_\_ that the earth actually moves, let alone that it \_\_\_\_\_ around the sun.  
 (a) permit, orbits  
 (b) accept, revolves  
 (c) experience, circles  
 (d) assume, went
- Q 16. Unpredictable \_\_\_\_\_ of the child could not lead the consultants to any \_\_\_\_\_.  
 (a) performance, setting  
 (b) belief, judgment  
 (c) operation, purpose  
 (d) behaviour, conclusion
- Q 17. A public, servant who is guilty will not \_\_\_\_\_ punishment and no \_\_\_\_\_ person will be punished.  
 (a) be, sincere  
 (b) flee, guilty  
 (c) defend, common  
 (d) escape, innocent
- Q 18. Few professions can \_\_\_\_\_ the sheer variety and constant \_\_\_\_\_ of being a doctor.  
 (a) like, struggle  
 (b) share, enthusiast  
 (c) match, challenge  
 (d) draw, work-load
- Q 19. The organization \_\_\_\_\_ to popularize Indian classical music among the youth which has lost \_\_\_\_\_ with its cultural roots.  
 (a) endeavors, touch  
 (b) wishes, interest  
 (c) efforts, experience  
 (d) exerts, intrigue

- Q 20. One of the major critiques of the examination system is that it \_\_\_\_\_ to a spirit of \_\_\_\_\_ competition among the students.  
 (a) results, defective  
 (b) accompanies, adequate  
 (c) develops, intense  
 (d) leads, unhealthy

### ➤ PRACTICE EXERCISE 3

**Direction:** Pick out the most effective pair of words from the given pair of words to make the sentence/sentences meaningfully complete.

- Q 1. Auroras are natural light displays in the sky, usually \_\_\_\_\_ at night, \_\_\_\_\_ in the Polar regions.  
 (a) watch, upward  
 (b) noticed, peculiar  
 (c) observed, only  
 (d) found, most
- Q 2. After the board examinations, students are \_\_\_\_\_ up for the various entrance examinations \_\_\_\_\_ for next month.  
 (a) ready, timed  
 (b) gearing, scheduled  
 (c) prepared, programmed  
 (d) set, duration
- Q 3. The governmental \_\_\_\_\_ spurred dramatic improvements in the way waste management is \_\_\_\_\_ out in many hospitals.  
 (a) rule, thrown  
 (b) plans, conduct  
 (c) crusade, done  
 (d) efforts, carried
- Q 4. The petitioner had \_\_\_\_\_ an immediate stay from the court on allotment of the flats till \_\_\_\_\_ of investigation into the alleged irregularities.  
 (a) asked, process  
 (b) sought, completion  
 (c) propagated, finish  
 (d) demanded, course
- Q 5. Opportunities \_\_\_\_\_ when they are seized and \_\_\_\_\_ when they are seized and \_\_\_\_\_ when they are not.  
 (a) gather, evade  
 (b) needed, reflect  
 (c) create, disperse  
 (d) multiply, die
- Q 6. At the sound of the bell we are \_\_\_\_\_ to pause, relax our body and become gently \_\_\_\_\_ of our in-breath and out-breath.  
 (a) asked, thoughtless  
 (b) requested, wishful  
 (c) invited, aware  
 (d) forced, meaningful

### 1.30 ✦ Verbal Ability

- Q 7. \_\_\_\_\_ to listen to the sounds of nature, we find that we can afterwards carry on with whatever we were doing in a more \_\_\_\_\_ and loving way.
- (a) Feeling, helpful
  - (b) Waiting, rough
  - (c) Dreaming, dramatic
  - (d) Pausing, attentive
- Q 8. My inward petition was instantly \_\_\_\_\_. First, a delightful cold wave descended over my back and under my feet, \_\_\_\_\_ all discomfort.
- (a) acknowledged, banishing
  - (b) repudiated, infuriating
  - (c) acceded, exacerbating
  - (d) decimated, assuaging
- Q 9. Aruna \_\_\_\_\_ her team with a lot of skill and the \_\_\_\_\_ increase in the sales by the team is a measure of her success.
- (a) dominates, poor
  - (b) condemns, sudden
  - (c) manages, significant
  - (d) directs, worthless
- Q 10. On being asked for the passport, he \_\_\_\_\_ to his dismay that he had \_\_\_\_\_ to bring it along with him to the airport.
- (a) shocked, failed
  - (b) realized, forgotten
  - (c) pleaded, neglected
  - (d) understood, stood
- Q 11. Helen quickly \_\_\_\_\_ the career ladder and is now the \_\_\_\_\_ managing director, the company has ever appointed.
- (a) jumped, shortest
  - (b) entered, oldest
  - (c) started, junior most
  - (d) climbed, youngest
- Q 12. A famous economist says that the government should do more to \_\_\_\_\_ jobs in the area in order to curb the \_\_\_\_\_ rate of unemployment.
- (a) create, rising
  - (b) need, increasing
  - (c) employ, high
  - (d) invent, growing
- Q 13. After \_\_\_\_\_ payrolls and tightening perks to cope with the economic slowdown last year, software companies are finding that management graduates are transferring their \_\_\_\_\_ to vocations such as manufacturing and banking.
- (a) trimming, loyalties
  - (b) reducing, accounts
  - (c) hiking, services
  - (d) increased, affections
- Q 14. It is very important to \_\_\_\_\_ that when the swine flu virus enters a human body. It takes a minimum of one day to a maximum of eight days for the disease to develop \_\_\_\_\_.
- (a) gauge, extensively
  - (b) ascertain, further
  - (c) understand, fully
  - (d) verify, remarkably
- Q 15. Scientists, working to save the earth, have \_\_\_\_\_ dry water that soaks carbon three times better than water, and hence, helps \_\_\_\_\_ global warming.
- (a) aided, cut
  - (b) created, combat
  - (c) built, stop
  - (d) produced, increase
- Q 16. The first round of the contest had the students \_\_\_\_\_ themselves and \_\_\_\_\_ about their hobbies.
- (a) introducing, talking
  - (b) sensitizing, sketching
  - (c) showcasing, planning
  - (d) acclimatizing, mentioning
- Q 17. The varsity's poll process for \_\_\_\_\_ of new candidates has \_\_\_\_\_ poor response with only ten thousand applications being received till date.
- (a) entrusting, seen
  - (b) registration, evoked
  - (c) entrance, made
  - (d) admission, made
- Q 18. The organization takes its cue from the person on the top. I always told our business leaders their personal \_\_\_\_\_ determined their organization's \_\_\_\_\_.
- (a) serendipity, faux pas
  - (b) predilection, despair
  - (c) intensity, success
  - (d) oddity, conformity
- Q 19. The Himalayas ran from east to west and cut off the cold winds from the north. This allowed agriculture to prosper and \_\_\_\_\_ wealth, but it also \_\_\_\_\_ barbarian invaders from the north.
- (a) attracted, dissipated
  - (b) created, attracted
  - (c) created, restricted
  - (d) attracted, evicted
- Q 20. Our \_\_\_\_\_ diversity may also be of some value. Because we have always learned to live with pluralism, it is possible that we may be better prepared to \_\_\_\_\_ the diversity of global economy.
- (a) stupefying, negotiate
  - (b) plural, alleviate
  - (c) variegated, annihilate
  - (d) dreary, exasperate

# ANSWERS



## ↳ PRACTICE EXERCISE 1

Q. No.	Answer						
1	(c)	2	(a)	3	(a)	4	(c)
5	(b)	6	(d)	7	(b)	8	(a)
9	(d)	10	(c)	11	(c)	12	(d)
13	(b)	14	(b)	15	(a)	16	(b)
17	(b)	18	(c)	19	(d)	20	(c)

## ↳ PRACTICE EXERCISE 2

Q. No.	Answer						
1	(d)	2	(a)	3	(b)	4	(d)
5	(a)	6	(b)	7	(d)	8	(d)
9	(c)	10	(a)	11	(d)	12	(d)
13	(d)	14	(a)	15	(b)	16	(d)
17	(d)	18	(c)	19	(a)	20	(d)

## ↳ PRACTICE EXERCISE 3

Q. No.	Answer						
1	(c)	2	(b)	3	(d)	4	(b)
5	(d)	6	(c)	7	(d)	8	(d)
9	(c)	10	(b)	11	(d)	12	(a)
13	(a)	14	(c)	15	(b)	16	(a)
17	(b)	18	(c)	19	(b)	20	(a)

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# 4

# Confusing Words



## LEARNING Objectives

This chapter should enable you to understand the following:

1. Understanding the nuances of confusable words
2. Approaching questions based on them accurately

Mark Twain said, “The difference between the right word and the almost right word is the difference between lightning and the lightning bug”.

Confusing words questions have been designed to check primarily for mental alertness – differentiating between two similar words.

To excel in this chapter, having a good vocabulary only may not be sufficient. A good vocabulary can be useful when used to trigger a word already in your vocabulary bank. But simply plucking out a near-synonym can result in some disastrous situation because the word may not fit the context of the question. And there comes the need of understanding the usage of words and having mental alertness to identify the minor differences between/among them.

Specially, in today’s time, when students have got access to computer/MS Word/T9 in mobiles, which prompt predictive typing or suggested right word for every wrong word, at a very early stage mental alertness is of much more importance.

We start this chapter by providing a list of Commonly Mistaken Word followed by exercises. Though, needless to say, any such list cannot be exhaustive and students are advised to keep looking for such words in their day to day reading too.

### ➤ LIST OF COMMONLY MISTAKEN WORD

1. Emigrant	A person who leaves one country to move to another.  The Bangladeshi emigrants got on to the boat at Chittagong.
Immigrant	A person who enters one country from another.  The immigrants to India got off the boat in Howrah.
2. Eminent	well-known  Newton is an eminent scientist.
Imminent	about to happen  Dam999, documentary movie, predicted that a flood was imminent.
3. Feign	To give a false appearance of To feign ignorance
Faint	To lose consciousness briefly  Some people often faint at the sight of a mouse.

4.	Farther	At a greater distance I can see him going farther.		(2) The principal of the school attended our concert.
	Further	More I have nothing further to tell you.	Principle	The principal was Rs 10000 and the interest was 5% a year.
5.	Flaunt	To make a gaudy display Paris likes to flaunt her wealth.		A general rule or truth
	Flout	To defy Flouting traffic rules may put you in difficulty.	13. Quiet	A principled life is required to lead a happy life.
6.	Ideal	Perfect There is no ideal solution to the poverty problem in India.	Quit	Calm, Still, silent
	Idol	Object of worship Idol worship has made him blind to his coach's faults.	Quite	Keep quiet, you might alert the birds.
7.	Ingenious	Clever, imaginative Ingenious minds dream ambitious plans.	14. Rain	To stop doing something
	Ingenuous	Frank and open Deenanath Chauhan has an ingenuous way of believing everything she hears.		People who quit smoking has the higher chances of survival in case of heart attack.
8.	Moral	Having high moral values as prescribed in religious books. Immorality has permeated in the lives of politicians to a great extent.	Rein	Entirely, Really, Noticeably
	Morale	State of mind in terms of confidence and courage. The morale of our troops is high	Reign	Preeti felt quite ill during dinner.
9.	Ordinance	Rule of order A new ordinance has been issued regarding the economic policy.	15. Raise	Liquid Precipitation
	Ordnance	Arms, arsenal The ordnance factory at army HQ is quite old.		There will be rain today – as per MET forecast.
10.	Precede	To go in advance of A precedes B in the alphabet.	Rein	A device used to guide a horse.
	Proceed	To go on or go forward If there are no doubts, I will proceed with the next concept.	Reign	Adjust the saddle and reins.
11.	Prescribe	To recommend or set down a rule to be followed. The doctor prescribed absolute rest for the patient.	16. Raze	The rule of a sovereign
	Proscribe	To ban something Doctor proscribed curd for the patient.		It happened in the reign of Lord Mountbatten.
12.	Principal	(1) Major, capital as opposed to interest. Carelessness is a principal cause of highway accidents.	17. Simulate	15. Raise
				To lift something
				Police ordered the thief to raise both the hands and surrender.
			Raze	16. Raze
				To demolish
				The wreckers began to raze the illegal complex.
			Septic	17. Simulate
				A bacterial infection
				The wound developed into a septic because of negligence.
			Skeptic	18. Sore
				A person who always doubts
				Fake placement records of B-schools make students skeptical.
				To imitate or pretend
				Now a days, drivers can get themselves trained on simulators.
			Stimulate	19. Sour
				Excite, provoke, inspire
				Anna's speech could stimulate the whole nation.
				20. Soar
				Unhappy, bitter
				He was quite sore over his defeat.
				Not sweet, pungent
				The grapes were quite sour.
				To rise high
				His spirits soared when he got the call letter.

19.	Stationary	Static, Motionless The car rammed into the stationary truck.	Venial	Something that can be pardoned The venial mischief of the child were often overlooked.	
	Stationery	Writing material Mr Randhir owns the best stationery shop in town.	26.	Waist	The narrow part of the body above the hips. He has a 34-waist.
20.	Straight	Not curved or crooked A straight line is the shortest distance between two points.	Waste	Needless consumption or destruction Facebook is a total waste of time.	
	Strait	A narrow passage of water connecting two large bodies of water, a distressing situation. We passed through the Strait of Gibraltar. Our next door neighbor is in dire financial straits.	27.	Weather	Day to day climate What is the weather forecast for today?
21.	Suit	A coat with matching trousers or skirt, a proceeding in a law court. Grandfather still wears a blue suit every Sunday. Ram Bikemalani argued his suit eloquently.	Whether	If it be the case that I do not know whether she would marry me or not?	
	Suite	A set of rooms, of matching furniture The reserved the bridal suite at The Taj.	28.	Whose	The possessive of the pronoun who Whose book is this? 'who is'
22.	Tamper	To meddle with Ask children not to tamper with the equipments.	Your	Who's going to dinner with me? The possessive of the pronoun You.	
	Temper	Disposition, Nature He has a bad temper and that is why he is not very popular.	You're	Is this your book? 'You are' You're late for work.	
23.	Urban	Belonging to the city or town. The villagers are fast migrating to urban areas.	30.	Can	Capable Despite the warning, hooligans may create problems.
	Urbane	Refined, Polished, Cultured Having an urbane personality is desirable for all the sales people.	May	Permission May I go out Sir?	
24.	Vain	Conceited, useless That model is an unusually vain girl. He made several vain attempts to get a job.	31.	Able	Power or strength in general Despite going through Chemotherapy, Yuvraj is able to play football.
	Vane	A direction pointer The weekend farmers bought a new weather vane for the barn.	Capable	Power or strength in particular He is capable of running for 2 hours continuously.	
	Vein	A blood vessel In today's medical class, we were told about veins and arteries.	32.	Advice	Suggestion (Noun) People who give unsolicited advice are not respected in the society.
25.	Venal	Evil, corrupt, immoral The venal acts of bureaucrats have damaged the nation.	Advise	Counsel (Verb) I advise you to try to stay put in the hostel.	
			33.	Beside	Adjacent, nearby My house is beside church.
			Besides	Also, as well as Besides getting a technical know how, doing MBA will also give me practical exposure.	
			Decent	Suitable; respectable	
			34.	Descent	The act of coming down To differ

### 1.36 ✦ Verbal Ability

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35. Desert	(1) Waste land, (2) to abandon (1) Sahara is one of the biggest deserts in the world. (2) Mr Bhatt deserted Ms Parveen after using her talent.	36. Dual	Double All long range aircrafts have dual engine.
Dessert	The course at the end of the dinner The dessert was just as good as was the dinner.	Duel	Contest between two people Duel between MSD and VS for captaincy is detrimental for Team performance.



- Q 8. i. Malaria is **pandemic** [A]/**endemic** [B] to the areas where mosquitoes breed.  
 ii. The cleaner **scunged** [A]/**scrunched** [B] the trash cans for reuse.  
 iii. His work consists **in** [A]/**of** [B] dealing with people.  
 iv. The child **tumbled** [A]/**stumbled** [B] over the stone.  
 v. He and I intend to leave **to** [A]/**for** [B] USA after two days.  
 (a) BBABB      (b) ABABB  
 (c) BBABA      (d) BAABB
- Q 9. i. Daily wagers pay **continuous** [A]/**constant** [B] attention to the weather.  
 ii. This year's rains that persisted **continuously** [A]/**continually** [B] in winter are attributed to climate change.  
 iii. She has a habit of talking to her **imaginative** [A]/**imaginary** [B] friend.  
 iv. The General declared that the victory came with the **minimum** [A]/**minimal** [B] loss of lives.  
 (a) ABAB      (b) ABBB  
 (c) BBBB      (d) BBBA
- Q 10. i. He hired several **aids** [A]/**aides** [B] to help him in his work.  
 ii. Her **masterful** [A]/**masterly** [B] personality soon dominated the movement.  
 iii. The chartered accountant went through the **maize** [A]/**maze** [B] of papers to file tax return.  
 iv. During the high **tide** [A]/**tied** [B] the fishermen tied [A]/tide [B] their boats to the pier.  
 (a) ABABA      (b) ABBAB  
 (c) BABAA      (d) BAABA
- Q 11. i. The college **affected** [A]/**effected** [B] a new policy on leave encashment by teachers.  
 ii. The **rationale** [A]/**rational** [B] behind current curricula is that students need to learn language and thinking skills, not specific information.  
 (a) AA      (b) BB  
 (c) BA      (d) AB
- Q 12. i. All the bickering and noise we witness in the legislature over petty politics is pure **bathos** [A]/**pathos** [B].  
 ii. After the accident the victim went into **comma** [A]/**coma** [B] for several days.  
 (a) BB      (b) AB  
 (c) BA      (d) AA
- Q 13. i. Our confidence in cricket has been seriously **undermined** [A]/**underrated** [B] by the recent match fixing scandal.  
 ii. His **valid** [A]/**vapid** [B] talk failed to impress the investors.  
 iii. It was so hot that he walked in the **shade** [A]/**shadow** [B] of the tree.  
 (a) BBA      (b) ABA  
 (c) ABB      (d) BAB
- Q 14. i. The messenger gave him a letter written in a hurried **scroll** [A]/**scrawl** [B].  
 ii. You are **deflecting** [A]/**detracting** [B] from the agenda of discussion.  
 iii. The receptionist **scowled** [A]/**screamed** [B] at me when I made a vacuous inquiry.  
 iv. The items I liked most were the rosewood carvings and the teak wood **furnitures** [A]/**furniture** of Gothic style.  
 (a) BABB      (b) BAAB  
 (c) BBAB      (d) BAAB
- Q 15. i. The **warp** [A]/**woof** [B] of India's economic structure is still agriculture.  
 ii. My friend always does the opposite of [A]/**to** [B] what I advise him.  
 iii. Compact disks with **prurient** [A]/**prudish** [B] content are secretly in circulation in the assembly.  
 iv. He believed that the existence of god cannot be proved; he was not an **atheist** [A]/**agnostic** [B].  
 (a) AAAA      (b) ABAA  
 (c) ABBB      (d) BAAB
- Q 16. i. I have kept the book **besides** [A]/**beside** [B] the computer on the table.  
 ii. You can attempt 20 questions from **among** [A]/**between** [B] 30 questions.  
 iii. It was so hot in the sun that they moved into the **shadow** [A]/**shade** [B].  
 iv. **Although** [A]/**Despite** [B] his having known her for years, he behaved like a stranger.  
 (a) ABAB      (b) ABBA  
 (c) BAAA      (d) BABB
- Q 17. i. I do not know who **discovered** [A]/**invented** [B] the computer.  
 ii. You should get your car's **breaks** [A]/**brakes** [B] repaired before the long drive to Ladakh.  
 iii. **As long as** [A]/**As far as** [B] my opinion is concerned, I will not say anything against the case.  
 iv. Lack of awareness of environmental policies of the government has led the company **tangle** [A]/**dangle** [B] into the legal problems.  
 (a) ABAB      (b) BBBA  
 (c) BABB      (d) BAAB
- Q 18. i. Within a short time span, she became his trusted **confident** [A]/**confidant** [B].  
 ii. We were required to make a **custom** [A]/**costume** [B] design for the online shop.  
 iii. He was declared **illegal** [A]/**eligible** [B] for the post despite not having required work experience.  
 iv. Several **eminent** [A]/**imminent** [B] academicians are expected to be present for the seminar.  
 (a) ABAB  
 (b) ABBA  
 (c) BABA  
 (d) BAAB



# ANSWERS



## ☛ PRACTICE EXERCISE 1

Q. No.	Answer						
1	B	2	B	3	A	4	A
5	A	6	B	7	B	8	A
9	A	10	A				

## ☛ PRACTICE EXERCISE 2

Q. No.	Answer						
1	(a)	2	(a)	3	(a)	4	(b)
5	(b)	6	(c)	7	(d)	8	(a)
9	(c)	10	(c)	11	(a)	12	(a)
13	(b)	14	(b)	15	(d)	16	(d)
17	(b)	18	(a)	19	(a)	20	(b)
21	(d)	22	(b)	23	(a)	24	(c)
25	(a)						

# 5

# Frequently Used Vocabulary

## LEARNING Objectives

This chapter should enable you to understand the following:

1. Helps to develop competency in English Language
2. Enables to handle variety of questions across English section in examinations
3. Improves ability to express and communicate in English

### ➤ LIST OF FREQUENTLY USED VOCABULARY

#### A

Abase (v.)—to humiliate, to degrade  
Abate (v.)—to reduce or to lessen  
Abdicate (v.)—to give up a position, usually one of great power or authority  
Abduct (v.)—to kidnap, take by force  
Aberration (n.)—something that differs from what's normal  
abet (v.)—to encourage or assist (someone)—to do something wrong, in particular to commit a crime  
Abhor (v.)—to hate, detest  
Abide—To agree  
Abject (adj.)—wretched, pitiful  
Abjure (v.)—to reject, renounce  
Abort (v.)—to give up on a half-finished project or effort  
Abridge a. (v.)—to cut down, shorten;  
    b. (adj.)—shortened  
Abrogate (v.)—to abolish, usually by authority  
Abscond (v.)—to sneak away and hide  
Absolution (n.)—freedom from blame, guilt, sin  
Abstain (v.)—to freely choose not to commit an action  
Abstruse (adj.)—hard to comprehend  
Accede (v.)—to agree  
Accentuate (v.)—to stress, highlight

Accessible (adj.)—obtainable, reachable  
Acclaim (n.)—high praise  
Accolade (n.)—high praise, special distinction, approbation  
Accord (n.)—an agreement  
Accost (v.)—to confront verbally  
Accretion (n.)—slow growth in size or amount  
Acerbic (adj.)—biting, bitter in tone or taste  
Acquiesce (v.)—to agree without protesting  
Acrimony (n.)—bitterness, discord  
Acumen (n.)—keen insight  
Acute a. (adj.)—sharp, severe;  
    b. (adj.)—having keen insight  
Adamant (adj.)—impervious, immovable, unyielding  
adept (adj.)—extremely skilled  
adhere a. (n.)—to stick to something;  
    b. (n.)—to follow devoutly  
admonish (v.)—to caution, criticize, reprove, to warn lightly  
adorn (v.)—to decorate  
adroit (adj.)—skillful, dexterous, deft  
adulation (n.)—extreme praise  
adverse (adj.)—antagonistic, unfavorable, dangerous  
aesthetic (adj.)—artistic, related to one's sense of beauty  
affable (adj.)—friendly, amiable  
affinity (n.)—a spontaneous feeling of closeness  
affluent (adj.)—rich, wealthy

affront (n.)—an insult  
 aggrandize (v.)—to increase or make greater  
 aggregate a. (n.)—a whole or total;  
     b. (v.)—to gather into a mass  
 aggrieved (adj.)—distressed, wronged, injured  
 agile (adj.)—quick, nimble  
 agnostic (adj.)—doubting the existence of God  
 aisle (n.)—a passageway between rows of seats  
 alacrity (n.)—eagerness, speed  
 allay (v.)—to soothe, ease, put to rest  
 allege (v.)—to assert, usually without proof  
 alleviate (v.)—to relieve, make more bearable  
     [Opposite – Aggravate]  
 aloof (adj.)—reserved, distant  
 altercation (n.)—a dispute, fight  
 amalgamate (v.)—to bring together, unite  
 ambiguous (adj.)—uncertain, variably interpretable  
 ambivalent (adj.)—having opposing feelings  
 ameliorate (v.)—to improve  
 amenable (adj.)—willing, compliant  
 amiable/amicable (adj.)—friendly  
 anachronistic (adj.)—out of its proper time  
 analgesic (n.)—something that reduces pain  
 analogous (adj.)—similar to, so that an analogy can be drawn  
 anarchist (n.)—one who opposes and wants to eliminate all  
     forms of government and law  
 anathema (n.)—something cursed, a detestable person  
 anecdote (n.)—a short, humorous account  
 anguish (n.)—extreme sadness, torment  
 annex a. (v.)—to incorporate a space;  
     b. (n.)—a space attached to a larger space  
 annul (v.)—to make void or invalid  
 anomaly (n.)—something that does not fit into the normal  
     order  
 anonymous (adj.)—being unknown, unrecognized  
 antagonism (n.)—hostility  
 antecedent (n.)—something that came before  
 anthology (n.)—a selected collection of writings, songs, etc.  
 antipathy (n.)—a strong dislike, repugnance  
 antiquated (adj.)—old, out of date  
 antiseptic (adj.)—clean, sterile  
 antithesis (n.)—the absolute opposite  
 apathetic (adj.)—lacking concern, non-emotional  
 apocryphal (adj.)—probably fictitious, probably false or  
     wrong  
 appalling (adj.)—inspiring shock, horror, disgust  
 appease (v.)—to calm, satisfy  
 appraise (v.)—to assess worth or value  
 apprehend a. (v.)—to seize, arrest;  
     b. (v.)—to perceive, understand, grasp  
 arable (adj.)—suitable for growing crops  
 arbiter (n.)—one who can resolve a dispute or make a  
     decision  
 arbitrary (adj.)—based on random factors

arboreal (adj.)—of or relating to trees  
 arcane (adj.)—obscure, secret, known only by a few  
 archaic (adj.)—of or relating to an earlier period in time,  
     outdated  
 archetypal (adj.)—the most representative or typical example  
     of something  
 ardor (n.)—extreme vigor, energy, enthusiasm  
 arid (adj.)—excessively dry  
 arrogate (v.)—to take without justification  
 artifact (n.)—a remaining piece from an extinct culture or  
     place  
 artisan (n.)—a craftsman  
 ascetic (adj.)—practicing restraint as a means of self-  
     discipline, usually religious  
 ascribe (v.)—to assign, credit, attribute to  
 aspersion (n.)—a curse, expression of ill-will  
 aspire (v.)—to long for or to aim toward  
 assail (v.)—to attack  
 assiduous (adj.)—hard-working, diligent  
 assuage (v.)—to ease, pacify  
 astute (adj.)—very clever, crafty  
 atone (v.)—to repent, make amends  
 atrophy (v.)—to wither away, decay  
 attribute a. (v.)—to credit, assign;  
     b. (n.)—a facet or trait  
 audacious (adj.)—excessively bold, brave  
 augment (v.)—to add to, expand  
 auspicious (adj.)—favorable, indicative of good things  
 austere (adj.)—very bare, bleak, strict in manner  
 avenge (v.)—to seek revenge  
 aversion (n.)—a particular dislike for something

**B**

balk (v.)—to stop, block abruptly  
 banal (adj.)—dull, commonplace  
 bane (n.)—a burden [Opposite – Boon – Blessing]  
 bashful (adj.)—shy, excessively timid  
 battery a. (n.)—a device that supplies power;  
     b. (n.)—assault, beating  
 beguile (v.)—to trick, deceive  
 behemoth (n.)—large creature; something of tremendous  
     power or size  
 benevolent (adj.)—marked by goodness or doing good  
 benign (adj.)—favorable, not threatening, mild  
 bequeath (v.)—to pass on in a will, give or donate legally  
 berate (v.)—to scold vehemently  
 bereft (adj.)—devoid of, without  
 beseech (v.)—to beg, plead, implore  
 bias (n.)—a tendency, inclination, prejudice  
 blandish (v.)—to coax by using flattery  
 blemish (n.)—an imperfection, flaw  
 blight a. (n.)—a plague, disease;  
     b. (n.)—a scar or mark of discoloration  
 boisterous (adj.)—loud and full of energy

bombastic (adj.)—excessively confident, pompous  
 bourgeois (n.)—an upper middle-class person, a successful capitalist  
 brazen (adj.)—excessively bold, brash  
 brusque (adj.)—short, abrupt, dismissive  
 buffet a. (v.)—to strike with force;  
     b. (n.)—arrangement of food on a table  
 burnish (v.)—to polish, shine  
 buttress a. (v.)—to support, hold up;  
     b. (n.)—something that offers support

**C**

cacophony (n.)—tremendous noise, disharmonious sound  
 cadence (n.)—a rhythm, progression of sound  
 cajole (v.)—to urge, coax  
 calamity (n.)—an event with disastrous consequences  
 calibrate (v.)—to set, standardize  
 callous (adj.)—harsh, cold, unfeeling  
 camaraderie (n.)—brotherhood, partnership, jovial unity  
 candor (n.)—honesty, frankness  
 canny (adj.)—shrewd, careful  
 canvas a. (n.)—a strong, coarse unbleached cloth;  
     b. (v.)—to cover, inspect  
 capacious (adj.)—very spacious  
 capitulate (v.)—to surrender  
 capricious (adj.)—subject to whim, fickle  
 captivate (v.)—to get the attention of, hold  
 catalyze (v.)—to charge, inspire  
 caucus (n.)—a meeting usually held by people working toward the same goal  
 caustic (adj.)—bitter, biting, acidic  
 cavort (v.)—to leap about, behave boisterously  
 censure a. (n.)—harsh criticism; b. (v.)—to rebuke formally  
 cerebral (adj.)—related to the intellect  
 chaos (n.)—absolute disorder  
 chastise (v.)—to criticize severely  
 cherish (v.)—to feel or show deep affection toward something  
 chide (v.)—to voice disapproval  
 chronicle a. (n.)—a written history;  
     b. (v.)—to write a detailed history  
 chronological (adj.)—arranged in order of time  
 circuitous (adj.)—roundabout  
 circumlocution (n.)—indirect and wordy language  
 circumspect (adj.)—cautious; aware of what's around you  
 circumvent (v.)—to go around an established route or authority  
 clairvoyant (adj.)—able to perceive things that normal people cannot  
 clandestine (adj.)—secret  
 clemency (n.)—mercy  
 clergy (n.)—members of Christian holy orders  
 cloying (adj.)—sickeningly sweet  
 coagulate (v.)—to thicken, clot

coalesce (v.)—to fuse into a whole  
 coerce (v.)—to make somebody do something by force or threat  
 cogent (adj.)—intellectually convincing  
 cognizant (adj.)—aware, mindful  
 coherent (adj.)—logically consistent, intelligible  
 collateral a. (adj.)—secondary;  
     b. (n.)—security for a debt  
 colloquial (adj.)—characteristic of informal conversation  
 collusion (n.)—secret agreement, conspiracy  
 colossus (n.)—a gigantic statue or thing  
 commendation (n.)—a notice of approval or recognition  
 commensurate (adj.)—corresponding in size or amount  
 commodious (adj.)—roomy  
 compelling (adj.)—forceful, demanding attention  
 compensate (v.)—to make an appropriate payment for something  
 complacency (n.)—self-satisfied ignorance of danger  
 complement (v.)—to complete, make perfect or whole  
 compliment (n.)—an expression of esteem or approval  
 compliant (adj.)—ready to adapt oneself to another's wishes  
 complicit (adj.)—being an accomplice in a wrongful act  
 comprehensive (adj.)—including everything  
 compress (v.)—to apply pressure, squeeze together  
 compunction (n.)—distress caused by feeling guilty  
 concede (v.)—to accept as valid  
 conciliatory (adj.)—friendly, agreeable  
 concise (adj.)—brief and direct in expression  
 concoct (v.)—to fabricate, make up  
 concomitant (adj.)—accompanying in a subordinate fashion  
 concord (n.)—harmonious agreement  
 condolence (n.)—an expression of sympathy in sorrow  
 condone (v.)—to pardon, deliberately overlook  
 conformist (n.)—one who behaves the same as others  
 confound (v.)—to frustrate, confuse  
 congeal (v.)—to thicken into a solid  
 congenial (adj.)—pleasantly agreeable  
 Congenital—(of a disease or physical abnormality)—present from birth  
 congregation (n.)—a gathering of people, especially for religious services  
 congruity (n.)—the quality of being in agreement  
 connive (v.)—to plot, scheme  
 consecrate (v.)—to dedicate something to a holy purpose  
 consensus (n.)—an agreement of opinion  
 consign (v.)—to give something over to another's care  
 consolation (n.)—an act of comforting  
 consonant (adj.)—in harmony  
 constituent (n.)—an essential part  
 constrain (v.)—to forcibly restrict  
 construe (v.)—to interpret  
 consummate (v.)—to complete a deal or ceremony  
 contemporaneous (adj.)—existing during the same time  
 contentious (adj.)—having a tendency to quarrel or dispute

contravene (v.)—to contradict, oppose, violate  
 contrite (adj.)—penitent, eager to be forgiven  
 contusion (n.)—bruise, injury  
 conundrum (n.)—puzzle, problem  
 convene (v.)—to call together  
 convention a. (n.)—an assembly of people;  
     b. (n.)—a rule, custom  
 convivial (adj.)—characterized by feasting, drinking,  
     merriment  
 convoluted (adj.)—intricate, complicated  
 copious (adj.)—profuse, abundant  
 cordial (adj.)—warm, affectionate  
 coronation (n.)—the act of crowning  
 corpulence (adj.)—extreme fatness  
 corroborate (v.)—to support with evidence  
 corrosive (adj.)—having the tendency to erode or eat away  
 cosmopolitan (adj.)—sophisticated, worldly  
 counteract (v.)—to neutralize, make ineffective  
 coup a. (n.)—a brilliant, unexpected act;  
     b. (n.)—the overthrow of a government and  
         assumption of authority  
 coup de grâce—a final blow or shot given to kill a wounded  
     person or animal  
 coup d'état—the overthrow of a government and assumption  
     of authority  
 covert (adj.)—secretly engaged in  
 credulity (n.)—readiness to believe  
 crescendo (n.)—a steady increase in intensity or volume  
 culmination (n.)—the climax toward which something  
     progresses  
 culpable (adj.)—deserving blame  
 cultivate (v.)—to nurture, improve, refine  
 cumulative (adj.)—increasing, building upon itself  
 cunning (adj.)—sly, clever at being deceitful  
 cupidity (n.)—greed, strong desire  
 cursory (adj.)—brief, to the point of being superficial and  
     inadequate  
 curt (adj.)—abruptly and rudely short  
 curtail (v.)—to lessen, reduce

**D**

daunting (adj.)—intimidating, causing one to lose courage  
 dearth (n.)—a lack, scarcity  
 debacle (n.)—a disastrous failure, disruption  
 debase (v.)—to lower the quality or esteem of something  
 debauch (v.)—to corrupt by means of sensual pleasures  
 debunk (v.)—to expose the falseness of something  
 decorous (adj.)—socially proper, appropriate  
 decry (v.)—to criticize openly in an effort to devalue  
 deface (v.)—to ruin or injure something's appearance  
 defamatory (adj.)—harmful toward another's reputation  
 defer (v.)—to postpone something; to yield to another's  
     wisdom

deferential (adj.)—showing respect for another's authority  
 defile (v.)—to make unclean, impure  
 defunct (adj.)—no longer used or existing  
 delegate (v.)—to hand over responsibility for something  
 deleterious (adj.)—harmful  
 deliberate (adj.)—intentional, reflecting careful consideration  
 delineate (v.)—to describe, outline, shed light on  
 demarcation (n.)—the marking of boundaries or categories  
 demean (v.)—to lower the status or stature of something  
 demure (adj.)—quiet, modest, reserved  
 denigrate (v.)—to belittle, diminish the opinion of  
 denounce (v.)—to criticize publicly  
 deplore (v.)—to feel or express sorrow, disapproval  
 depravity (n.)—wickedness  
 deprecate (v.)—to belittle, depreciate  
 derelict (adj.)—abandoned, run-down  
 deride (v.)—to laugh at mockingly, scorn  
 derivative (adj.)—taken directly from a source, unoriginal  
 desecrate (v.)—to violate the sacredness of a thing or place  
 desiccated (adj.)—dried up  
 dehydrateddesolate (adj.)—deserted, dreary, lifeless  
 desolate (adj.)—deserted, dreary, lifeless  
 despondent (adj.)—feeling depressed, discouraged, hopeless  
 despot (n.)—one who has total power and rules brutally  
 destitute (adj.)—impoverished, utterly lacking  
 deter (v.)—to discourage, prevent from doing  
 devious (adj.)—not straightforward, deceitful  
 dialect (n.)—a variation of a language  
 diaphanous (adj.)—light, airy, transparent  
 didactic a. (adj.)—intended to instruct;  
     b. (adj.)—overly moralistic  
 diffident (adj.)—shy, quiet, modest  
 diffuse a. (v.)—to scatter, thin out, break up;  
     b. (adj.)—not concentrated, scattered or  
         disorganized  
 dilatory (adj.)—tending to delay, causing delay  
 diligent (adj.)—showing care in doing one's work  
 diminutive (adj.)—small or miniature  
 disaffected (adj.)—rebellious, resentful of authority  
 disavow (v.)—to deny knowledge of or responsibility for  
 discern (v.)—to perceive, detect  
 disclose (v.)—to reveal, make public  
 discomfit (v.)—to thwart, baffle  
 discordant (adj.)—not agreeing, not in harmony with  
 discrepancy (n.)—difference, failure of things to correspond  
 discretion (n.)—the quality of being reserved in speech or  
     action; good judgment  
 discursive (adj.)—rambling, lacking order  
 disdain a. (v.)—to scorn, hold in low esteem;  
     b. (n.)—scorn, low esteem  
 disgruntled (adj.)—upset, not content

disheartened (adj.)—feeling a loss of spirit or morale  
 disparage (v.)—to criticize or speak ill of  
 disparate (adj.)—sharply differing, containing sharply contrasting elements  
 dispatch (v.)—to send off to accomplish a duty  
 dispel (v.)—to drive away, scatter  
 disperse (v.)—to scatter, cause to scatter  
 dissemble (v.)—to conceal, fake  
 disseminate (v.)—to spread widely  
 dissent a. (v.)—to disagree;  
     b. (n.)—the act of disagreeing  
 dissipate a. (v.)—to disappear, cause to disappear;  
     b. (v.)—to waste  
 dissonance (n.)—lack of harmony or consistency  
 dissuade (v.)—to persuade someone not to do something  
 dither (v.)—to be indecisive  
 divine (adj.)—godly, exceedingly wonderful  
 divisive (adj.)—causing dissent, discord  
 divulge (v.)—to reveal something secret  
 docile (adj.)—easily taught or trained  
 dormant (adj.)—asleep or temporarily inactive  
 dubious (adj.)—doubtful, of uncertain quality  
 duress (n.)—hardship, threat  
 dynamic (adj.)—actively changing; powerful

**E**

ebullient (adj.)—extremely lively, enthusiastic  
 eclectic (adj.)—consisting of a diverse variety of elements  
 ecstatic (adj.)—intensely and overpoweringly happy  
 edict (n.)—an order, decree  
 efface (v.)—to wipe out, obliterate, rub away  
 effervescent (adj.)—bubbly, lively  
 efficacious (adj.)—effective  
 effrontery (n.)—impudence, nerve, insolence  
 effulgent (adj.)—radiant, splendidorous  
 egregious (adj.)—extremely bad  
 elaborate (adj.)—complex, detailed, intricate  
 elated (adj.)—overjoyed, thrilled  
 elegy (n.)—a speech given in honor of a dead person  
 elicit (v.)—to bring forth, draw out, evoke  
 eloquent (adj.)—expressive, articulate, moving  
 elucidate (v.)—to clarify, explain  
 elude (v.)—to evade, escape  
 emaciated (adj.)—very thin, enfeebled looking  
 embellish a. (v.)—to decorate, adorn;  
     b. (v.)—to add details to, enhance  
 embezzle (v.)—to steal money by falsifying records  
 eminent a. (adj.)—distinguished, prominent, famous  
 emollient (adj.)—soothing  
 emote (v.)—to express emotion

empathy (n.)—sensitivity to another's feelings as if they were one's own  
 empirical a. (adj.)—based on observation or experience;  
     b. (adj.)—capable of being proved or disproved by experiment  
 emulate (v.)—to imitate  
 enamor (v.)—to fill with love, to fascinate (usually used with “of” or “with”)  
 encore (n.)—a repeat performance at the audiences’ insistence.  
 encumber (v.)—to weigh down, burden  
 encumber (v.)—to weigh down, burden  
 enigmatic (adj.)—mystifying, cryptic  
 enmity (n.)—ill will, hatred, hostility  
 ennui (n.)—boredom, weariness  
 entail (v.)—to include as a necessary step  
 enthrall (v.)—to charm, hold spellbound  
 ephemeral (adj.)—short-lived, fleeting  
 epistolary (adj.)—relating to or contained in letters  
 epitome (n.)—a perfect example, embodiment  
 equanimity (n.)—composure  
 equivocal (adj.)—ambiguous, uncertain, undecided  
 erudite (adj.)—learned  
 eschew (v.)—to shun, avoid  
 esoteric (adj.)—understood by only a select few  
 espouse (v.)—to take up as a cause, support  
 ethereal (adj.)—heavenly, exceptionally delicate or refined  
 etymology (n.)—the history of words, their origin and development  
 euphoric (adj.)—elated, uplifted  
 evanescent (adj.)—fleeting, momentary  
 evince (v.)—to show, reveal  
 exacerbate (v.)—to make more violent, intense  
 exalt (v.)—to glorify, praise  
 exasperate (v.)—to irritate, irk  
 excavate (v.)—to dig out of the ground and remove  
 exculpate (v.)—to free from guilt or blame, exonerate  
 execrable (adj.)—loathsome, detestable  
 exhort (v.)—to urge, prod, spur  
 exigent (adj.)—urgent, critical  
 exonerate (v.)—to free from guilt or blame, exculpate  
 exorbitant (adj.)—excessive  
 expedient (adj.)—advisable, advantageous, serving one’s self-interest  
 expiate (v.)—to make amends for, atone  
 expunge (v.)—to obliterate, eradicate  
 expurgate (v.)—to remove offensive or incorrect parts, usually of a book  
 extant (adj.)—existing, not destroyed or lost  
 extol (v.)—to praise, revere  
 extraneous (adj.)—irrelevant, extra, not necessary

extricate (v.)—to disentangle  
exult (v.)—to rejoice

**F**

fabricate (v.)—to make up, invent  
façade a. (n.)—the wall of a building;  
    b. (n.)—a deceptive appearance or attitude  
facile a. (adj.)—easy, requiring little effort;  
    b. (adj.)—superficial, achieved with minimal thought or care  
fallacious (adj.)—incorrect, misleading  
fastidious (adj.)—meticulous, demanding, having high and often unattainable standards  
fathom a. (v.)—to understand, comprehend;  
    b. (n.)—six feet deep  
fatuous (adj.)—silly, foolish  
fecund (adj.)—fruitful, fertile  
felicitous a. (adj.)—well suited, apt;  
    b. (adj.)—delightful, pleasing  
fervent (adj.)—ardent, passionate  
fetter (v.)—to chain, restrain  
fickle (adj.)—shifting in character, inconstant  
fidelity (n.)—loyalty, devotion  
figurative (adj.)—symbolic  
flagrant (adj.)—offensive, egregious  
florid (adj.)—flowery, ornate  
flout (v.)—to disregard or disobey openly  
foil (v.)—to thwart, frustrate, defeat  
forbearance (n.)—patience, restraint, toleration  
forestall (v.)—to prevent, thwart, delay  
forlorn (adj.)—lonely, abandoned, hopeless  
forsake (v.)—to give up, renounce  
fortitude (n.)—strength, guts  
fraught (adj.)—(usually used with “with”)—filled or accompanied with  
frenetic (adj.)—frenzied, hectic, frantic  
frivolous (adj.)—of little importance, trifling  
frugal (adj.)—thrifty, economical  
furtive (adj.)—secretive, sly

**G**

garish (adj.)—gaudy, in bad taste  
garrulous (adj.)—talkative, wordy  
genial (adj.)—friendly, affable  
gluttony (n.)—overindulgence in food or drink  
goad (v.)—to urge, spur, incite to action  
gourmand (n.)—someone fond of eating and drinking  
grandiose (adj.)—on a magnificent or exaggerated scale  
gratuitous (adj.)—uncalled for, unwarranted  
gregarious (adj.)—drawn to the company of others, sociable

grievous (adj.)—injurious, hurtful; serious or grave in nature  
guile (n.)—deceitfulness, cunning, sly behavior

**H**

hackneyed (adj.)—unoriginal, trite, cliché  
hallowed (adj.)—revered, consecrated  
hapless (adj.)—unlucky  
hardy (adj.)—robust, capable of surviving through adverse conditions  
harrowing (adj.)—greatly distressing, vexing  
haughty (adj.)—disdainfully proud  
hedonist (n.)—one who believes pleasure should be the primary pursuit of humans, lotus-eaters  
hegemony (n.)—domination over others  
heinous (adj.)—shockingly wicked, repugnant  
heterogeneous (adj.)—varied, diverse in character  
hiatus (n.)—a break or gap in duration or continuity  
hierarchy (n.)—a system with ranked groups  
hypocrisy (n.)—pretending to believe what one does not

**I**

iconoclast (n.)—one who attacks commonly held beliefs or institutions  
idiosyncratic (adj.)—peculiar to one person; highly individualized  
idolatrous (adj.)—excessively worshipping one object or person  
ignominious (adj.)—humiliating, disgracing  
illicit (adj.)—forbidden, not permitted  
immerse (v.)—to absorb, deeply involve, engross  
immutable a. (adj.)—not changeable;  
    b. (adj.)—stoic, not susceptible to suffering  
impeccable (adj.)—exemplary, flawless  
impecunious (adj.)—desperately poor  
imperative a. (adj.)—necessary, pressing;  
    b. (n.)—a rule, command, or order  
imperious (adj.)—commanding, domineering  
impertinent (adj.)—rude, insolent  
impervious (adj.)—impenetrable, incapable of being affected  
impetuous (adj.)—rash; hastily done  
impinge a. (v.)—to impact, affect, make an impression;  
    b. (v.)—to encroach, infringe  
implacable (adj.)—incapable of being appeased or mitigated  
implement a. (n.)—an instrument, utensil, tool;  
    b. (v.)—to put into effect, to institute  
implicit (adj.)—understood but not outwardly obvious; implied [Opposite – Explicit]  
impregnable (adj.)—resistant to capture or penetration  
impudent (adj.)—casually rude, insolent, impertinent  
inane (adj.)—silly and meaningless

inarticulate (adj.)—incapable of expressing oneself clearly through speech

incarnate a. (adj.)—existing in the flesh, embodied; b. (v.)—to give human form to

incendiary a. (n.)—a person who agitates; b. (adj.)—inflammatory, causing combustion

incessant (adj.)—unending

inchoate (adj.)—unformed or formless, in a beginning stage

incisive (adj.)—clear, sharp, direct

inclination (n.)—a tendency, propensity

incontrovertible (adj.)—indisputable

incorrigible (adj.)—incapable of correction, delinquent

increment (n.)—an enlargement; the process of increasing

incumbent a. (n.)—one who holds an office; b. (adj.)—obligatory

indelible—(of ink or a pen)—making marks that cannot be removed

indefatigable (adj.)—incapable of defeat, failure, decay

indigenous (adj.)—originating in a region

indigent (adj.)—very poor, impoverished

indignation (n.)—anger sparked by something unjust or unfair

indolent (adj.)—lazy

indomitable (adj.)—not capable of being conquered

induce (v.)—to bring about, stimulate

ineffable (adj.)—unspeakable, not able to be expressed in words

inept (adj.)—unsuitable or incapable, not qualified

inxorable (adj.)—incapable of being persuaded or placated

inextricable (adj.)—hopelessly tangled or entangled

infamy (n.)—notoriety, extreme ill repute

infusion (n.)—an injection of one substance into another

ingenious (adj.)—clever, resourceful

ingenuous (adj.)—innocent and candid

inhibit (v.)—to prevent, restrain, stop

inimical (adj.)—hostile, enemy-like

iniquity (n.)—wickedness or sin

injunction (n.)—an order of official warning

innate (adj.)—inborn, native, inherent

innocuous (adj.)—harmless, inoffensive

innovate (v.)—to do something in an unprecedented way

innuendo (n.)—an insinuation

inoculate (v.)—to vaccinate against a disease

inquisitor (n.)—one who inquires, especially in a hostile manner

insatiable (adj.)—incapable of being satisfied

insidious (adj.)—appealing, but imperceptibly harmful, seductive

insinuate (v.)—to suggest indirectly or subtly

insipid (adj.)—dull, boring

insolent (adj.)—rude, arrogant, overbearing

instigate (v.)—to urge, goad, provoke

insular (adj.)—separated and narrow-minded; tight-knit, closed off

insurgent (n.)—one who rebels

integral (adj.)—necessary for completeness

interject (v.)—to insert between other things

interlocutor (n.)—someone who participates in a dialogue or conversation

interminable (adj.)—without possibility of end

intimation (n.)—an indirect suggestion

intractable (adj.)—difficult to manipulate, unmanageable

intransigent (adj.)—refusing to compromise, often on an extreme opinion

intrepid (adj.)—brave in the face of danger

inundate (v.)—to flood with abundance

inure (v.)—to cause one to become accustomed or acclimated

invective (n.)—an angry verbal attack

inveterate (adj.)—stubbornly established by habit

irascible (adj.)—easily angered

iridescent (adj.)—showing rainbow colours

irreverence (n.)—disrespect

irrevocable (adj.)—incapable of being taken back

**J**

jubilant (adj.)—extremely joyful, happy

judicious (adj.)—having or exercising sound judgment

juxtaposition (n.)—two things placed beside each other for the sake of implicit comparison

**K**

knell (n.)—the solemn sound of a bell, often indicating a death

kudos (n.)—praise for an achievement

**L**

laceration (n.)—a cut, tear

laconic (adj.)—terse in speech or writing

languid (adj.)—sluggish from fatigue or weakness

largess (n.)—great and lavish generosity in the giving of gifts

latent (adj.)—hidden, but capable of being exposed

laudatory (adj.)—expressing admiration or praise

lavish a. (adj.)—given without limits; b. (v.)—to give without limits

lenient (adj.)—demonstrating tolerance or gentleness

lethargic (adj.)—in a state of sluggishness or apathy

liability a. (n.)—legal responsibility; b. (n.)—a handicap, burden

libertarian (adj.)—advocating principles of liberty and free will

licentious (adj.)—displaying a lack of moral or legal restraints  
 limpid (adj.)—clear, transparent  
 litigant (n.)—someone engaged in a lawsuit  
 lucid (adj.)—clear, easily understandable  
 luminous (adj.)—brightly shining  
 lurid (adj.)—ghastly, sensational

**M**

magnanimous (adj.)—noble, generous  
 malediction (n.)—a curse  
 malevolent (adj.)—wanting harm to befall others  
 malleable (adj.)—capable of being shaped or transformed  
 mandate (n.)—an authoritative command  
 manifest a. (adj.)—easily understandable, obvious;  
     b. (v.)—to show plainly  
 manifold (adj.)—diverse, varied  
 maudlin (adj.)—weakly sentimental  
 maverick (n.)—an independent, nonconformist person  
 maxim (n.)—a common saying expressing a principle of conduct  
 meager (adj.)—deficient in size or quality  
 medley (n.)—a mixture of differing things  
 mendacious (adj.)—having a lying, false character  
 mercurial (adj.)—characterized by rapid change or temperament  
 meritorious (adj.)—worthy of esteem or reward  
 metamorphosis (n.)—the change of form, shape, substance  
 meticulous (adj.)—extremely careful with details  
 mitigate (v.)—to make less violent, alleviate  
 moderate a. (adj.)—not extreme;  
     b. (n.)—one who expresses moderate opinions  
 modicum (n.)—a small amount of something  
 modulate (v.)—to pass from one state to another, especially in music  
 mollify (v.)—to soften in temper  
 morose (adj.)—gloomy or sullen  
 multifarious (adj.)—having great diversity or variety

**N**

nadir (n.)—the lowest point of something [Opposite-Zenith]  
 nascent (adj.)—in the process of being born or coming into existence  
 nebulous (adj.)—vaguely defined, cloudy  
 nefarious (adj.)—heinously villainous  
 negligent (adj.)—habitually careless, neglectful  
 neophyte (n.)—someone who is young or inexperienced.  
 nocturnal (adj.)—relating to or occurring during the night  
     [Diurnal – occurring during the day]

noisome (adj.)—unpleasant, offensive, especially to the sense of smell  
 nomadic (adj.)—wandering from place to place  
 nonchalant (adj.)—having a lack of concern, indifference  
 nondescript (adj.)—lacking a distinctive character  
 novice (n.)—a beginner, someone without training or experience  
 noxious (adj.)—harmful, unwholesome  
 nuance (n.)—a slight variation in meaning, tone, or expression  
 nurture (v.)—to assist the development of

**O**

obdurate (adj.)—unyielding to persuasion or stubbornly insensitive to change  
 obfuscate (v.)—to render incomprehensible  
 oblique (adj.)—diverging from a straight line or course, not straightforward  
 oblivious (adj.)—lacking consciousness or awareness of something  
 obscure (adj.)—unclear, partially hidden  
 obsequious (adj.)—excessively compliant or submissive  
 obsolete (adj.)—no longer used, out of date  
 obstinate (adj.)—not yielding easily, very stubborn  
 obtuse (adj.)—lacking quickness of sensibility or intellect  
 odious (adj.)—instilling hatred or intense displeasure  
 officious (adj.)—insisting on helping when it's neither wanted nor needed  
 ominous (adj.)—foreboding or foreshadowing evil; threatening  
 onerous (adj.)—burdensome  
 opulent (adj.)—characterized by rich abundance verging on ostentation  
 oration (n.)—a speech delivered in a formal or ceremonious manner  
 ornate (adj.)—highly elaborate, excessively decorated  
 orthodox (adj.)—conventional, conforming to established protocol  
 oscillate (v.)—to sway from one side to the other  
 ostensible (adj.)—appearing as such, seemingly  
 ostentatious (adj.)—excessively showy, glitzy  
 ostracism (n.)—exclusion from a group, pariah

**P**

pacific (adj.)—soothing  
 palatable (adj.)—agreeable to the taste or sensibilities  
 palette (adj.)—a range of colours or qualities  
 palliate (v.)—to reduce the severity of, ameliorate  
 panacea (n.)—a remedy for all ills or difficulties  
 paradigm (n.)—an example that is a perfect pattern or model

paradox (n.)—an apparently contradictory statement that is perhaps true

paragon (n.)—a model of excellence or perfection

paramount (adj.)—greatest in importance, rank, character

pariah (n.)—an outcast, a repulsive person

parody (n.)—a satirical imitation

parsimony (n.)—frugality, stinginess

partisan (n.)—a follower, adherent

patent (adj.)—readily seen or understood, clear

pathos (n.)—an emotion of sympathy

paucity (adj.)—small in quantity

pejorative (adj.)—derogatory, uncomplimentary

pellucid (adj.)—easily intelligible, clear

penchant (n.)—a tendency, partiality, preference

penitent (adj.)—remorseful, regretful, repentant, contrite

penultimate (adj.)—next to last, second last

penurious (adj.)—miserly, stingy

perfidious (adj.)—disloyal, unfaithful

perfunctory (adj.)—showing little interest or enthusiasm, doing just for the sake of doing

permeate (v.)—to spread throughout, saturate

pernicious (adj.)—extremely destructive or harmful

perplex (v.)—to confuse

perspicacity (adj.)—shrewdness, perceptiveness

perusal (n.)—a careful examination, review

pervasive (adj.)—having the tendency to spread throughout

petulance (n.)—rudeness, irritability

philanthropic (adj.)—charitable, giving

phlegmatic (adj.)—uninterested, unresponsive

pillage (v.)—to seize or plunder, especially in war

pinnacle (n.)—the highest point

pithy (adj.)—concisely meaningful

pittance (n.)—a very small amount, especially relating to money

placate (v.)—to ease the anger of, soothe

placid (adj.)—calm, peaceful

platitude (n.)—an uninspired remark, cliché

plaudits (n.)—enthusiastic approval, applause

plausible (adj.)—believable, reasonable

plenitude (n.)—an abundance

plethora (n.)—an abundance, excess

pliable (adj.)—flexible

poignant (adj.)—deeply affecting, moving

polemic (n.)—an aggressive argument against a specific opinion

portent (n.)—an omen

potable (adj.)—suitable for drinking

potentate (n.)—one who has great power, a ruler

precipice (n.)—the face of a cliff, a steep or overhanging place

preclude (v.)—to prevent

precocious (adj.)—advanced, developing ahead of time

predilection (n.)—a preference or inclination for something

preponderance (adj.)—superiority in importance or quantity

prepossessing (adj.)—preoccupying the mind to the exclusion of all else

prescient (adj.)—to have foreknowledge of events

prescribe (v.)—to lay down a rule

Proscribe (v.)—forbid, especially by law

presumptuous (adj.)—disrespectfully bold

pretense (n.)—an appearance or action intended to deceive

primeval (adj.)—original, ancient

probity (n.)—virtue, integrity

proclivity (n.)—a strong inclination toward something

procure (v.)—to obtain, acquire

profane (adj.)—lewd, indecent

profligate (adj.)—dissolute, extravagant

profuse (adj.)—plentiful, abundant

promulgate (v.)—to proclaim, make known

propagate (v.)—to multiply, spread out

propensity (n.)—an inclination, preference

propitious (adj.)—favorable

propriety (n.)—the quality or state of being proper, decent

prosaic (adj.)—plain, lacking liveliness

protean (adj.)—able to change shape; displaying great variety

prowess (n.)—extraordinary ability

prudence (n.)—cautious, circumspect

puerile (adj.)—juvenile, immature

pugnacious (adj.)—quarrelsome, combative

punctilious (adj.)—eager to follow rules or conventions

pungent (adj.)—having a pointed, sharp quality (often describing smells)

punitive (adj.)—involving punishment

putrid (adj.)—rotten, foul

## Q

quagmire (n.)—a difficult situation

quaint (adj.)—charmingly old-fashioned

quandary (n.)—a perplexing, bad situation

quell (v.)—to control or diffuse a potentially explosive situation

querulous (adj.)—whiny, complaining

quixotic (adj.)—extremely idealistic, impractical

quotidian (adj.)—daily

## R

rail (v.)—to scold, protest

rancid (adj.)—having a terrible taste or smell

rancid (adj.)—having a terrible taste or smell

rancor (n.)—deep, bitter resentment  
 rapport (n.)—mutual understanding and harmony  
 rash (adj.)—hasty, incautious  
 raucous (adj.)—loud, boisterous  
 raze (v.)—to demolish, level  
 rebuke (v.)—to scold, criticize  
 recalcitrant (adj.)—defiant, unapologetic  
 recapitulate (v.)—to sum up, repeat  
 reciprocate (v.)—to give in return  
 reclusive (adj.)—solitary, shunning society  
 reconcile a. (v.)—to return to harmony;  
     b. (v.)—to make consistent with existing ideas  
 rectitude (n.)—uprightness, extreme morality  
 redoubtable a. (adj.)—formidable;  
     b. (adj.)—commanding respect  
 refract (v.)—to distort, change  
 refurbish (v.)—to restore, clean up  
 refute (v.)—to prove wrong  
 relegate a. (v.)—to assign to the proper place;  
     b. (v.)—to assign to an inferior place  
 relish (v.)—to enjoy  
 remedial (adj.)—intended to repair gaps in students' basic knowledge  
 remiss (adj.)—negligent, failing to take care  
 renovate a. (v.)—restore, return to original state;  
     b. (v.)—to enlarge and beautify  
 renown (n.)—honor, acclaim  
 renunciation (n.)—a rejection  
 repentant (adj.)—penitent, sorry  
 replete (adj.)—full, abundant  
 repose (v.)—to rest, lie down  
 reprehensible (adj.)—deserving rebuke  
 repudiate (v.)—to reject, refuse to accept  
 repulse a. (v.)—to disgust;  
     b. (v.)—to push back  
 rescind (v.)—to take back, repeal  
 reservoir a. (n.)—reserves, large supply;  
     b. (n.)—a body of stored water  
 respite (n.)—a break, rest  
 resplendent (adj.)—shiny, glowing  
 restitution (n.)—restoration to the rightful owner  
 restive (adj.)—resistant, stubborn, impatient  
 retract (v.)—withdraw  
 revel (v.)—to enjoy intensely  
 rife (adv.)—abundant  
 ruminate (v.)—to contemplate, reflect  
 ruse (n.)—a trick

**S**

sacrosanct (adj.)—holy, something that should not be criticized  
 sagacity (n.)—shrewdness, soundness of perspective

salient (adj.)—significant, conspicuous  
 salutation (n.)—a greeting  
 sanctimonious (adj.)—giving a hypocritical appearance  
 sanguine (adj.)—optimistic, cheery  
 satiate (v.)—to satisfy excessively  
 scathing (adj.)—sharp, critical, hurtful  
 scintillating (adj.)—sparkling  
 scrupulous (adj.)—painsstaking, careful in conduct or manner  
 scurrilous (adj.)—vulgar, coarse  
 sedentary (adj.)—sitting, settled  
 seminal (adj.)—original, important, creating a field  
 sensual (adj.)—involving sensory gratification, usually related to sex  
 sensuous (adj.)—involving sensory gratification  
 serendipity (n.)—luck, finding good things without looking for them  
 serene (adj.)—calm, untroubled  
 servile (adj.)—subservient  
 sinuous (adj.)—lithe, serpentine  
 sobriety (n.)—sedate, calm  
 solicitous (adj.)—concerned, attentive  
 solvent a. (n.)—substances that dissolve other substances;  
     b. (adj.)—able to pay debts  
 somnolent (adj.)—sleepy, drowsy  
 sophomoric (adj.)—immature, uninformed  
 sovereign (adj.)—having absolute authority in a certain realm  
 speculative (adj.)—not based in fact  
 spurious (adj.)—false but designed to seem plausible  
 stagnate (v.)—to become or remain inactive, not develop, not flow  
 staid (adj.)—sedate, serious, self-restrained  
 stingy (adj.)—not generous, not inclined to spend or give  
 stoic (adj.)—unaffected by passion or feeling  
 stolid (adj.)—expressing little sensibility, unemotional  
 strenuous (adj.)—requiring tremendous energy or stamina  
 strident (adj.)—harsh, loud  
 stupefy (v.)—to astonish, make insensible  
 subjugate (v.)—to bring under control, subdue  
 sublime (adj.)—lofty, grand, exalted  
 submissive (adj.)—easily yielding to authority  
 succinct (adj.)—marked by compact precision  
 superfluous (adj.)—exceeding what is necessary  
 surmise (v.)—to infer with little evidence  
 surreptitious (adj.)—stealthy  
 surrogate (n.)—one acting in place of another  
 sycophant (n.)—one who flatters for self-gain

**T**

tacit (adj.)—expressed without words  
 taciturn (adj.)—not inclined to talk; peevish  
 tangential (adj.)—incidental, peripheral, divergent

**tantamount** (adj.)—equivalent in value or significance  
**tedious** (adj.)—dull, boring

**temerity** (n.)—audacity, recklessness

**temperance** (n.)—moderation in action or thought

**tenable** (adj.)—able to be defended or maintained

**tenuous** (adj.)—having little substance or strength

**terrestrial** (adj.)—relating to the land

**timorous** (adj.)—timid, fearful

**tirade** (n.)—a long speech marked by harsh language

**toady** (n.)—one who flatters in the hope of gaining favors

**torpid** (adj.)—lethargic, dormant, lacking motion

**torrid** (adj.)—giving off intense heat, passionate

**tortuous** (adj.)—winding

**tractable** (adj.)—easily controlled

**tranquil** (adj.)—calm

**transgress** (v.)—to violate, go over a limit

**transient** (adj.)—passing through briefly; moving in and out of existence

**transmute** (v.)—to change or alter in form

**travesty** (n.)—a grossly inferior imitation

**trepidation** (n.)—fear, apprehension

**trite** (adj.)—not original, overused

**truculent** (adj.)—ready to fight, cruel

**truncate** (v.)—to shorten by cutting off

**turpitude** (n.)—depravity, moral corruption

## U

**ubiquitous** (adj.)—existing everywhere, widespread

**umbrage** (n.)—resentment, offense

**uncanny** (adj.)—of supernatural character or origin

**uncouth** (adj.)—lacking good manners, refinement, or grace

**unctuous** (adj.)—smooth or greasy in texture, appearance, manner

**undulate** (v.)—to move in waves

**upbraid** (v.)—to criticize or scold severely

**usurp** (v.)—to seize by force, take possession of without right

**utilitarian** (adj.)—relating to or aiming at usefulness

**utopia** (n.)—an imaginary and remote place of perfection

## V

**vacillate** (v.)—to fluctuate, hesitate

**vacuous** (adj.)—lack of content or ideas, stupid

**validate** (v.)—to confirm, support, corroborate

**vapid** (adj.)—lacking liveliness, dull

**vehemently** (adv.)—marked by intense force or emotion

**veneer** (n.)—a superficial or deceptively attractive appearance, façade, top layer

**venerable** (adj.)—deserving of respect because of age or achievement

**venerate** (v.)—to regard with respect or to honor

**veracity** (n.)—truthfulness, accuracy

**verbose** (adj.)—wordy, impaired by wordiness, loud

**vestige** (n.)—a mark or trace of something lost or vanished

**vex** (v.)—to confuse or annoy

**vicissitude** (n.)—event that occurs by chance and brings heart-ship or pain

**vigilant** (adj.)—watchful, alert

**vilify** (v.)—to lower in importance, defame

**vindicate** (v.)—to avenge; to free from allegation; to set free

**vindictive** (adj.)—vengeful

**virtuoso** (n.)—one who excels in an art; a highly skilled musical performer

**viscous** (adj.)—not free flowing, syrupy

**vituperate** (v.)—to berate

**vivacious** (adj.)—lively, sprightly

**vocation** (n.)—the work in which someone is employed, profession

**vociferous** (adj.)—loud, boisterous

## W

**wane** (v.)—to decrease in size, dwindle

**wanton** (adj.)—undisciplined, lewd, lustful

**whimsical** (adj.)—fanciful, full of whims, acting or behaving in a capricious manner

[Capricious—sudden and unaccountable changes of mood or behaviour.]

**wily** (adj.)—crafty, sly

**winsome** (adj.)—charming, pleasing

**wistful** (adj.)—full of yearning; musingly sad

**wrath** (n.)—vengeful anger, punishment

## Z

**zealous** (adj.)—fervent, filled with eagerness in pursuit of something

**zenith** (n.)—the highest point, culminating point

**zephyr** (n.)—a gentle breeze

## ➤ A LIST OF 'OLOGIES'

Ology – It is the study of...

anthropology—humans

apiology—bees

archaeology—past culture of humans

astrology—stars(for making predictions)

bacteriology—bacteria

biology—life

cartology—maps and map-making

cetology—whales

climatolgy—climate

conchology—shells

cosmetology—cosmetics cosmology—universe

criminology—crime and criminals cryptology—codes

ecology—interactions in environments

## 1.52 ◊◊ Verbal Ability

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entomology—insects  
embryology—embryos  
eschatology—death, judgement, afterlife  
ethnobiology—life pertaining to certain people  
ethnology—cultural heritage  
ethology—animal behavior  
etiology—causes and reasons  
etymology—a word  
geology—earth  
graphology—handwriting  
herpetology—reptiles  
hippology—horses  
hydrology—water  
ichthyology—fish  
ideology—ideas  
mammalogy—mammals  
meteorology—climate and weather  
microbiology—microscopic life  
morphology—structure of organisms  
musicology—music  
mycology—fungi  
myrmecology—ants  
nephology—clouds  
neurology—brain  
ornithology—birds  
ophiology—snakes  
ophthalmology—eyes  
otology—ears  
paleoanthropology—ancient human-like creatures

paleobiology—ancient life  
paleontology—ancient life, studied through fossils  
paleozoology—ancient animals  
pathology—disease  
pedology—children  
petrology—rocks  
phantomology—supernatural beings  
pharmacology—drugs  
pharyngology—pharynx(part of throat)  
phenology—periodic biological phenomena  
phenomenology—phenomenons  
philology—historical language  
phonology—speech sounds  
phraseology—use of words and phrases  
physical anthropology—human characteristics  
physiology—characteristics of organisms  
phytology—plants(usually called botany)  
pomology—fruit  
psychology—mind and behavior  
pyrology—fire  
seismology—earthquakes  
sociology—society  
somatology—human characteristics  
speleology—caves  
storiology—stories and legends  
topology—characteristics and history of a place  
tropical biology—tropical life  
vulcanology—volcanoes  
zoology—animals

# 6

# Idioms and Phrases

## LEARNING Objectives

At the end of this chapter, you should have a thorough understanding of the following:

1. Types of questions asked in this chapter
2. Different types of error and how to identify those
3. Modifiers Error/Parallelism Error

### ➤ IDIOMS

An expression or phrase or collection of words, often informal, that has a meaning of its own which is not apparent from the meanings of its individual words is an IDIOM. In other words, meaning of IDIOMS is generated through the collection of individual words. For example “To Kick the bucket” is an idiom which means “to die.” Knowledge of Idioms is important because in the absence of it, key meaning of passage or sentence may not be understood.

Following pages contain a list of the most commonly encountered idioms and their meanings.

### A

Abide by—adhere to, agree to  
Above board—honest, frank  
Account for—provide an explanation for  
All agog—in a state of excitement  
All and Sundry—everyone without exception  
All intents and purposes—practically, in actual practice  
An axe to grind—selfish motive  
Answer a purpose—to serve a purpose

Answer for—take the responsibility for  
Apple of discord—cause of quarrel, a bone of contention  
Apple of one's eye—an object of love, the most valuable possession  
Apple pie order—in perfect order  
Ask after—inquire about one's condition or health  
Ask for—asked to be given, to run the risk of something negative  
Ask out—invite to a function (or an outing or a party)  
At a low ebb—in a state of decline  
At a pinch—in a difficulty  
At a stone's throw—very near  
At a stretch—continuously, without a break  
At an arm's length—to keep aloof, to avoid, to keep at a distance  
At any rate—in any event, under any circumstances  
At home in—to be strong, to be comfortable with a subject  
At one's beck and call—at one's disposal or command  
At one's finger's tips or ends—to be an expert at something  
At par—on level with, of a similar quality  
At random—aimlessly, without goals  
At sea—weak, perplexed  
At sixes and sevens—in disorder, pell-mell

At stake—in danger  
 At the bottom—real cause  
 At the eleventh hour—at a late stage, at the last moment  
 At the mercy of—in the power of  
 At the outset—right in the beginning  
 A.B.C.—elementary facts  
 to Add fuel to the fire—to increase anger  
 to be At daggers drawn with—to be enemies, to be on bad terms  
 to be At one's wit's end—to be in a fix or confusion, to be perplexed  
 to be At large—to be free and not under any control

**B**

Back out—to withdraw, to break a promise  
 Bad blood—enmity, bad feelings  
 Bag and baggage—completely, leaving behind nothing  
 Be off one's head—to be mad, insane  
 Bear a grudge—to have bitter feelings towards someone  
 Bear in mind—remember  
 Bear up—keep one's spirits under hostile conditions  
 Bed of roses—full of joys and pleasures  
 Bed of thorns—full of sufferings  
 Behind one's back—in one's absence  
 Beside the mark—irrelevant, not to the point  
 Between the devil and the deep sea—to be in a fix or between two difficulties  
 Big gun—an important figure  
 Bird's eye view—a general view or study  
 Black sheep—a disgraceful person  
 Blessing in disguise—a certain thing which appears to be a curse in the beginning but proves to be a blessing in the end  
 Blow one's own trumpet—to speak proudly of one's achievements  
 Blow over—to end, to extinguish/terminate  
 Blue blood—a member of aristocracy  
 Bolt from the blue—a sudden shock or calamity  
 Bone of contention—a cause of quarrel  
 Bread and butter—livelihood  
 Break down—mental or nervous collapse of a person  
 Break in—enter with the aim of stealing  
 Bring up—to rear the children; to start a topic for discussion  
 Buckle under—to accept under pressure, to give in  
 Burning question—an important question or topic of the day  
 By far—beyond all comparison  
 By hook or by crook—by all means, fair or foul  
 By leaps and bounds—rapidly, at a rapid pace  
 By no means—in no way  
 By virtue of—on account of  
 to Bank upon—to depend, to rely  
 to Be born with a silver spoon in one's mouth—born in prosperous circumstances

to Be in the good books—to be in favour with  
 to Be in the bad books—to be in disfavour with  
 to Bear the brunt of—to bear the consequences  
 to Bear the palm—to win reward  
 to Beat about the bush—to talk irrelevant  
 to Beat a retreat—to retire, to move back  
 to Beat hollow—to defeat completely  
 to Bell the cat—to face a risk  
 to Bid fair—likely to be  
 to Break the ice—to break the silence, to get over initial shyness  
 to Bring credit to—to bring fame and honour  
 to Bring down the house—to win general praise  
 to Bring to book—to punish the guilty  
 to Burn one's fingers—to get into trouble  
 to Burn the candle at both ends—to waste one's energy, time and money uselessly  
 to Burn the mid-night oil—to work very hard till late at night  
 to Bury the hatchet—to forget a quarrel, to make peace

**C**

a Cat's paw—to make somebody a tool  
 a Chicken-hearted person—a cowardly person  
 a Child's play—something very easy  
 a Cock and bull story—an imaginary or false story  
 a Cool head—a calm judgment  
 a Cry in the wilderness—a useless cry  
 Call on—to pay a visit  
 Capital punishment—punishment of death  
 Care about—to feel for someone/something  
 Care for—have respect or regard for someone  
 Cast down—depressed, dejected  
 Casting vote—a vote which decides the issue when the voting is otherwise equal  
 Close shave—a narrow escape  
 Come of—come from, descended from  
 Come off—to be successful  
 Come round—become conscious; to visit; adopt an opinion  
 Come to hand—receive  
 Count on—to believe in, rely on  
 Count out—to disregard  
 Crocodile tears—false tears  
 Cut and dried—in a readymade form  
 to Call a spade a spade—to speak in plain terms, to speak out openly  
 to Call into question—to object to  
 to Carry fire and sword—to cause destruction  
 to Call for—to demand  
 to Carry off one's feet—to be wild with excitement  
 to Carry the day—to win, to succeed  
 to Cast a slur upon—to bring a blot, to bring discredit  
 to Cast a spell over—fascinate or attract  
 to Cast into the shade—to throw into obscure position

to Catch napping—to take unawares  
 to Catch tartar—to meet with a person who is more than a match for one  
 to Change colour—to turn pale with fear  
 to Chew the cud—to think deeply  
 to Clinch the issue—to decide the matter  
 to Come of age—to be major, to be twenty one  
 to Come off with flying colours—to succeed well  
 to Come to a head—to reach a crisis  
 to Come to a stand-still—to come to a stop  
 to Come to grief—to suffer, to be ruined, to fail  
 to Compare notes—to discuss impressions or opinions  
 to Cool one's heels—to wait for somebody patiently  
 to Cross one's mind—to come into one's mind  
 to Cross swords—to fight  
 to Cry for the moon—to wish for something impossible  
 to Cry over spilt milk—to waste time in vain, repent over lost opportunities  
 to Cut a sorry figure—to feel humbled, to make oneself ridiculous, to produce a poor result  
 to Cut no ice—to have no effect  
 to Cut the Gordian knot—to get over a difficulty by a bold strike

**D**

a Dead letter—no longer in use  
 a Deadlock—a position in which no progress can be made  
 a Dog in the manger—a selfish policy  
 a Drawn game or battle—in which no party wins  
 Dark horse—a competition of unknown capabilities  
 Dead of night—in the middle of  
 Dead shot—a marksman whose aim never goes wrong  
 Deal in—to trade in something, to be busy with something  
 Democle's sword—an impending danger  
 Die down—reduce to zero slowly, to diminish and finish  
 Die hard—customs that require a long period to die out  
 Dirt cheap—very cheap  
 Do away with—reject, get rid of  
 Do one proud—to give cause for feeling proud  
 Do up—put in better condition  
 Down and out—completely beaten  
 Draw in—to pull into something  
 Dress down—to scold, censure, rebuke  
 Dutch courage—fictitious courage induced somehow  
 to be Dashed to the ground—to fail  
 to Dance attendance upon—to wait on somebody always  
 to Dance to one's tune—to carry out orders  
 to Decline with thanks—to refuse or neglect  
 to Die in harness—to die while working till death  
 to Do full justice—to have one's fill, to do a thing thoroughly

to Drive home—to lay emphasis on, to make something very clear

**E**

at the Eleventh hour—at the last moment  
 Eat into—to destroy  
 Eat one out of house and home—to eat in a gluttonous manner  
 Eat one's heart out—to worry excessively  
 Eat one's words—to take back one's words  
 Eat out of one's hand—give no trouble  
 Enough and to spare—in plenty  
 Every inch—completely  
 Eye for eye—tit for tat  
 Eye wash—means of deceit  
 to Eat humble pie—to offer an humble apology  
 to Eat one's words—to go back on one's promise, to back out  
 to Egg on—to keep urging regarding something  
 to End in smoke—to come to nothing  
 to Extend the hand of friendship—to express a desire for friendship

**F**

a Fair hand—a beautiful and clear hand  
 a Fair weather friend—a selfish friend  
 a Fatal disease—a disease that ends in death  
 a Far cry—a long way or distance  
 a Feather in one's cap—another achievement to be proud of  
 a Fish out of water—to be in an uncomfortable position  
 a Flying visit—a hasty and brief visit  
 a Fool's paradise—state of joy based on false hopes  
 by Fits and starts—irregularly  
 Face to face—personally  
 Fair play—impartial treatment  
 Fall flat—collapse, flop, fail to generate interest  
 Fall foul of—to incur the disfavour of  
 Fall over one another—to try and do something before others  
 Fed up—to be tired of to be sick of  
 Few and far between—few and rare  
 First and foremost—important  
 Flesh and blood—human nature  
 Fly at—attack  
 Fly in the face of discretion—foolishly take a course that is not logical  
 Fly off at a tangent—to start discussing something totally irrelevant  
 For good—for ever  
 Foul play—bad intentions  
 From hand to mouth—a miserable existence  
 to Face the music—to face trouble, to face consequences of one's actions  
 to Fall to the ground—to come to nothing

to Fan the flames—to increase excitement  
 to Feather one's nest—to care for one's selfish interest  
 to Feel at home—to feel happy or at ease  
 to Fight shy of—to attempt to avoid a thing or person  
 to Fish in troubled waters—to take advantage of the troubles of others  
 to Fizzle out—failed out gradually  
 to Flog a dead horse—to waste one's energy and time  
 to Fly in the face of—to insult  
 to Follow in the foot-steps of—to follow somebody's example  
 to Follow suit—to follow example of  
 to Foot the bill—to pay the bill

**G**

Gala day—a day of rejoicings  
 Gift of the gab—fluency of speech  
 Give and take—the making of mutual concessions, quid pro quo  
 Give currency to—to give wide publicity  
 Go in for—to take up as an occupation  
 Go off the deep end—to lose temper  
 Go the rounds—be circulated  
 Grain of salt—to believe only a part of statement  
 to be Greek—unintelligible, not clear  
 to be a Good hand at—to be expert  
 to Gain ground—to progress  
 to Get at the bottom of—to find out the truth  
 to Get away with—to do something without the fear of any repercussion  
 to Get back at—to retaliate  
 to Get down to brass tacks—decide about the practical details  
 to Get into a mess—to get into muddle  
 to Get into a scrap—to be involved in a difficult situation  
 to Get into hot water—to get into scrap, to get into trouble  
 to Get on one's nerves—to be a source of worry  
 to Get the better of—to overpower, to defeat  
 to Get the sack—to be dismissed  
 to Get the upper hand—to become stronger, to get the better position  
 to Get wind of—to come to know of  
 to Gird up one's loins—to prepare oneself for a work  
 to Give a bit or a piece of one's mind—to rebuke; to scold  
 to Give a person the cold shoulder—to show a person apathy  
 to Give a slip—to escape  
 to Give a wide berth to—to avoid, to keep aloof from  
 to Give away—to reveal, betray, disclose  
 to Give chapter and verse—to give full proof  
 to Give in—to yield to pressure, to succumb  
 to Give oneself airs—to assume a superior attitude, to feel proud  
 to Give quarter to—to have sympathy with

to Give the cold shoulder—to receive in a cold and careless manner  
 to Give way—collapse, replace by  
 to Go against the grain—against one's likings  
 to Go all out for—to make the maximum possible effort  
 to Go by—to judge something by  
 to Go easy—not to use excessively  
 to Go hand in hand—to go together  
 to Go Scot free—to escape unpunished  
 to Go the whole hog—to go to the fullest extent; to agree  
 to Go through fire and water—to make every sacrifice  
 to Go to dogs—to be utterly ruined  
 to Go to the wall—to be ruined to, be hard pressed  
 to Go with the current—to follow the general trend  
 to Go without saying—to be clear  
 to Go home to—to appeal  
 to Grease the palm—to bribe

**H**

a Hair breadth escape—a narrow escape  
 a Hard nut to crack—a difficult problem, a stubborn person  
 Hair standing on end—a sign of fear and surprise  
 Hale and hearty—very healthy and sound  
 Hammer and tongs—with all might  
 Hand in gloves with—on very intimate terms  
 Hang by a thread—to be in a miserable condition  
 Hang heavy—difficult to pass  
 Happy go lucky—careless, depending on good luck  
 Hard and fast—strict  
 Hard of hearing—somewhat deaf  
 Hard up—in financial difficulty  
 Haunted house—in which ghosts or spirits are supposed to live  
 Heads and shoulders above others—very superior  
 Heart and soul—with full energy  
 Heels of Achilles—vulnerable point  
 Henpecked—a husband under the control or thumb of his wife  
 Herculean task—a work requiring great efforts  
 High spirits—to be very happy  
 High time—proper time  
 Hobson's choice—no choice at all  
 Hold good—to be valid  
 Hold on—to continue efforts  
 Hold out—not yield  
 Hole and corner—secret and underhand  
 Horns of dilemma—to be in a fix  
 Hue and cry—to raise a great cry and or stir, to raise alarm  
 Hush money—a bribe, price of silence  
 to be Hoisted with one's petard—to be killed with one's own sword  
 to Hammer out—to plan, to devise  
 to Hang in the balance—undecided

to Hang fire—delayed  
 to Harp on the same string or scheme—to talk continuously of the same matter  
 to Have a bee in one's bonnet—to take the remarks seriously  
 to Have a finger in every pie—to interfere unnecessarily  
 to Have a windfall—unexpected good fortune  
 to Have an old head on young shoulders—ripe in wisdom but young in years  
 to Have one's hands full—to be very busy  
 to Have one's way—to do one's own will  
 to Hit below the belt—to be mean, to fight unfairly  
 to Hit the ceiling—to give an outlet to anger  
 to Hit the nail on the head—to do what is proper at a proper time  
 to Hold a brief—to support be action or influence  
 to Hold a candle to—to be equal to, to be comparable to the other  
 to Hope against hope—to entertain hope when there is no hope  
 to Hold the baby—be burdened with a task that should be shared by others too  
 to Hold one's own—to maintain one's position boldly  
 to Hold water—to be valid

**I**  
 an Iron hand—severe hand  
 an Iron will—strong determination  
 an Irony of fate—happening of events contrary to natural expectations  
 In a nut-shell—briefly, as a summary  
 In black and white—in writing  
 In cold blood—cruelly  
 In full swing—in great progress  
 In the air—wide-spread, prevalent  
 In the course of—during  
 In the face of—in spite of  
 In the guise of—in the dress of  
 In the light of—keeping in view  
 In the long run—in the end  
 In the nick of time—just in time  
 In the teeth of—in the face of  
 In the twinkling of an eye—in no time  
 In the wake of—behind  
 In tune with—in keeping with  
 In vogue—to be in fashion  
 Ins and outs—full details  
 Iron out—smoothen  
 to be In one's elements—in one's proper sphere

**J**  
 Jack of all trades—a person supposed to know everything partially

Jail bird—a person who has been to jail many times  
 Jump at—to accept immediately  
 Jump down one's throat—to reply in an angry manner  
 Jump on—to scold severely  
 Jump to the conclusion—to arrive at a conclusion soon

**K**

Keep to—stick to, adhere to  
 Keep up with—to keep pace with  
 Kick up the dust—to create disturbance  
 Kith and kin—relatives  
 to Keep a good table—to entertain  
 to Keep a straight face—to avoid smiling or laughing  
 to Keep abreast of—to be familiar with  
 to Keep body and soul together—to remain alive  
 to Keep one's head—to remain mentally calm in an emergency  
 to Keep one's head above water—to tide over difficulty, to escape debt  
 to Keep the ball rolling—to maintain interest of a conversation  
 to Keep the powder dry—to be ready for any work  
 to Keep the wolf from the door—to keep away, hunger and starvation  
 to Keep up appearances—to maintain outward show  
 to Kick up a row—to make a great noise  
 to Knock down—to defeat  
 to Knock off—to reduce; stop working

**L**

a Left-handed compliment—a false praise  
 at a Low ebb—on the decline  
 Labour of love—work undertaken not for profit but for service  
 Laughing stock—an object of ridicule  
 Lay off—to remove from work  
 Leap in the dark—a careless action  
 Lend oneself to—allow to be carried away  
 Let down—to fail to keep promise  
 Let off—released  
 Let up—to be sluggish  
 to the Letter—completely  
 Life and soul—main figure  
 Lion's share—a major share  
 Live up to—to maintain certain standards  
 Loaves and fishes—material comforts  
 Lock, stock and barrel—with all belongings  
 Look blue—to feel nervous r depressed  
 Look down one's nose—to regard others contemptuously  
 Look forward to—to expect with pleasure  
 Look on—watch carefully  
 Look out—take care

Look to—to request for help  
 Look up—to verify  
 Look up to—to admire something/someone  
 to Land an ear—to listen to  
 to Land on one's feet—to be lucky  
 to Laugh in one's sleeves—to laugh in secret but not openly  
 to Lead a cat and dog life—to lead a life of constant quarrelling  
 to Lead a dog's life—to lead a miserable life  
 to Lead astray—to misguide  
 to Leave in the lurch—to leave in time of difficulty and trouble  
 to Leave no stone unturned—to make all possible efforts  
 to Let bygones be bygones—to ignore the past  
 to Let off steam—to react aggressively to release the tensions  
 to Lie in wait for—to wait for in concealment  
 to Live in glass-houses—to be open to criticism  
 to Lose head—to lose balance of mind, to be proud

**M**

a Man of straw—a man with no voice or will of his own  
 a Moot point—a point or question still open to discussion  
 Maiden speech—a speech made for the first time  
 Man in the street—an ordinary person  
 Man of letters—a scholar with literary tastes  
 Man of moment—an important person  
 Man of word—a reliable person  
 Much ado about nothing—to make fuss  
 to Make a clean sweep of—to remove  
 to Make a dash—to go quickly  
 to Make a mark—to distinguish oneself  
 to Make a mess of—to bungle  
 to Make a mountain of mole hill—to exaggerate difficulties or trifles  
 to Make a pint of—to do something (certainly)  
 to Make amends for—to compensate for damage or injury  
 to Make an example of—to punish someone to make it a warning to others  
 to Make away with—to carry off  
 to Make both ends meet—to live within one's income  
 to Make do without—to manage without something  
 to Make free with—to take liberty with  
 to Make hay while the sun shines—to make the best use of the opportunity  
 to Make headway—to progress slowly and steadily  
 to Make light of—to treat lightly, to attach no importance  
 to Make much of—to make an issue of something trivial  
 to Make neither head nor tail of—not to understand  
 to Make one's way—to succeed, to prosper  
 to Make the flesh creep  
 to Make the heart bleed—to be filled with sorrow or pity  
 to Make up—to compensate

to Make up one's mind—to resolve  
 to Make up with—to compose one's differences  
 to Make way—to make room for others  
 wide of the Mark—irrelevant

**N**

a Narrow escape—to be saved with a great difficulty  
 a Necessary evil—something which cannot be avoided  
 Neck and neck—side by side; even in a race or contest  
 Nook and corner—everywhere  
 Not worth the salt—good for nothing  
 Now and again—occasionally  
 Null and void—invalid, of no effect  
 to Nip in the bud—to destroy a thing at the very beginning  
 to Nurse a grudge—to have jealousy or revenge

**O**

Odds and ends—different things, big and small  
 Off hand—without previous preparation  
 Of no avail—of no use  
 Of one's own accord—of one's own free will  
 On one's last legs—about to fall  
 On the sly—privately  
 On the spur of the moment—without any deliberation, at once  
 Order of the day—something common or general  
 Out of pocket—without money, short of  
 Out of the wood—out of danger or difficulty  
 Once for all—finally  
 Out of joint—in disorder and confusion  
 On the face of it—apparently  
 On the ground of—for  
 to be On the lookout for—to be in the search of  
 to be On the right scent—to be going in right direction  
 to be On the right side of—to be less than or below  
 to be On the wane—to decline  
 to be On the wrong side of—to be more than

**P**

Pillar to post—form one place of shelter to another  
 Point blank—frankly  
 Pros and cons—arguments for and against  
 to Pay in the same coin—to give tit for tat  
 to Pay lip service—sympathy, to pretend to be faithful  
 to Pay off old scores—to have revenge  
 to Play ducks and drakes—to spend lavishly  
 to Play fast and loose—to say one thing and to do another (be inconsistent)  
 to Play into the hands of—to be under the control of  
 to Play second fiddle—to be in a subordinate position  
 to Play to the gallery—to appeal to lower taste

to Play truant—to stay away from class  
 to Plead guilty—to confess one's crime  
 to Pocket an insult—to bear insult quietly  
 to Poison one's ears—to prejudice  
 to Poke one's nose—to interfere with  
 to Pull a long face—to look sad and worried  
 to Pull one's legs—to make a fool of  
 to Put a spoke in one's wheel—to hinder one's progress  
 to Put heads together—to consult  
 to Put one's foot down—to show determination  
 to Put the best foot forward—to do one's best  
 to Put the cart before the horse—to do things in a wrong manner

**R**

a Rainy day—a time of difficulty or poverty  
 a Red letter day—auspicious day of rejoicing, lucky and important day  
 a Red rag to a bull—highly irritating, a cause for anger  
 a Rolling stone—one who is never constant to one work or the other  
 a Rough diamond—an illiterate but noble person  
 a Royal road—an easy way to achieve an end  
 Rain or shine—under all circumstances  
 Red tapism—official formalities causing excessive delays  
 Right hand man—a very useful person on whom one can depend  
 Rise from the ranks—to rise from a humble position  
 Root and branch—completely, entirely  
 Run over—go over  
 the Rank and file—the masses  
 to Rack one's brains—to think hard  
 to Read between the lines—to read carefully  
 to Rest on one's laurels—to rest satisfied with the honours already won  
 to Rest on one's oars—to rest after hard work  
 to Ride roughshod over—to be inconsiderate or cruel  
 to Rise to the occasion—to be found equal to the task  
 to Rub shoulders with—to come in close touch with  
 to Run amuck—to go mad  
 to Run down—weak in health  
 to Run riot—to wander without restraint  
 to Run the gauntlet—to undergo severe criticism

**S**

a Sharp tongue—a bitter tongue  
 a Sheet anchor—the chief support  
 a Square deal—a fair bargain, justice  
 a Square meal—full meal  
 a Square peg in a round hole—a misfit  
 a Stepping stone—source of success or help  
 a Storm in a tea cup—a quarrel for trifling reason

a Stumbling block—a great obstacle  
 by the Skin of one's teeth—very narrowly  
 Scapegoat—a person who is made to bear the blame of others  
 Scot free—to go without punishment  
 See through—understand  
 Shake in the shoes—to be in a state of fear  
 Shake off—to get rid of  
 Side issue—something not connected with the matter in hand  
 Sing low—to express one's views in an inconspicuous manner  
 Sink differences—to forget/overlook differences  
 Smooth sailing—no difficulty  
 Snake in the grass—a hidden enemy, a deceitful person  
 Sniff at—to show derision for  
 Spill one's sides—to laugh merrily  
 Stand by—to support  
 Steer clear of—to avoid, to keep aloof  
 Sum and substance—gist, purport  
 Sweet tooth—liking for sweetmeat  
 Swelled head—pride  
 Sword of Damocles—an impending danger  
 to do a Snow job—to fool someone  
 to Sail in the same boat—to be equally exposed to risk  
 to Sail under false colours—to pretend to be what one is not, to try to deceive  
 to Save one's skin—to accept without loss  
 to See a thing through coloured glasses—to see a thing with a prejudiced mind  
 to Set at naught—to disregard  
 to See eye to eye with—to agree  
 to Set Thames on fire—to try to achieve an impossible distinction  
 to Show a clean pair of heels—to run away  
 to Show the white feather—to show signs of cowardice  
 to Sing the blues—to exhibit a discouraged attitude  
 to Sit on the fence—to remain neutral  
 to Sit pretty—to be in a safe and comfortable position  
 to Sit up—to take notice of  
 to Smell a rat—to suspect something  
 to Sow the wild oats—to indulge in youthful follies  
 to Speak one's mind—to speak frankly  
 to Speak volumes—to bear sufficient evidence for or against  
 to Spill the beans—to give secret information  
 to Split hairs—to go into minute details  
 to Spread like a wild fire—to spread rapidly  
 to Stand in good stead—to be useful and serviceable  
 to Stand on one's own legs—to be independent  
 to Stand on ceremony—to insist on formalities  
 to Stand up for—to support  
 to Stare in the face—to threaten  
 to Steal a march—to get the advantage secretly  
 to Stem the tide of—to check, to stop  
 to Step into another's shoes—to take another's place

to Stick to one's guns—to stand firm, to stick to one's principles  
 to Strain every nerve—to try one's best  
 to Stretch a point—to bend the rules  
 to Swallow the bait—to fall an easy victim to temptations

**T**

a Thorn in the flesh—to be a source of anger or displeasure  
 a Turncoat—a person who changes opinions  
 a Turning point—anything that brings change  
 on Tenterhooks—in a state of suspense and anxiety  
 Take ill—fall ill; consider unfavourably  
 Take the cake—to be the topmost  
 Tall talk—boastful and exaggerated talk  
 Thankless task—a selfless work for which we cannot expect anything  
 The thin edge of the wedge—small beginning with bright future  
 The three R's—reading, writing and arithmetic  
 Through thick and thin—under all circumstances  
 Tied to the apron string of—to be dependent upon somebody  
 to be Taken aback—to be extremely surprised  
 to Take a fancy to—to like something  
 to Take a leaf out of another's book—to follow somebody's example  
 to Take a thing lying down—to pocket an insult without a murmur  
 to Take after—to resemble in features  
 to Take an issue—to quarrel  
 to Take away one's breath—to surprise  
 to Take by storm—to conquer rapidly  
 to Take exception to—to object  
 to Take French leave—leave without permission  
 to Take heart—to pluck up courage  
 to Take off the hat to—show respect  
 to Take one's cue—to take a hint  
 to Take root—to become firmly established  
 to Take stock of—to observe and estimate  
 to Take the bull by the horns—to face a difficulty boldly  
 to Take the lead—to surge ahead in a competition  
 to Take the plunge—to take a bold decision  
 to Take time by the forelock—to act at once, to avoid delay  
 to Take to heart—to feel  
 to Take to heels—to run away  
 to Take to task—to call to account, to scold, to require explanation  
 to Take up the cudgels—to defend, to fight for somebody's claims  
 to Talk shop—to discuss exclusively of one's business on profession  
 to Talk (someone) into—persuade by talking  
 to Talk (someone) out of—to discourage  
 to Talk through a hat—to exaggerate or bluff or make wild statement

to the Tune of—to the amount of  
 to Throw cold water on—to discourage  
 to Throw down the gauntlet—to give an open challenge  
 to Throw mud at—to abuse, to vilify  
 to Tip off—to give a secret hint  
 to Turn a deaf ear to—to refuse to listen to  
 to Turn one's head—to be proud  
 to Turn over a new leaf—a change for the better  
 to Turn tail—to withdraw cowardly  
 to Turn the corner—to pass the critical stage  
 to Turn the tables on—to reverse the situation  
 to Turn turtle—to upset, to capsizes  
 Tooth and nail—furiously, violently  
 True to one's salt—to be loyal to someone  
 Twinkling of an eye—very quickly

**U**

an Uphill task—a difficult work  
 Under a cloud—in disfavour or disgrace  
 Under lock and key—carefully  
 Under the thumb of—under the control of  
 Up and doing—active  
 Up one's sleeves—something hidden but ready for use in reserve  
 Up to the mark—up to certain standard  
 Ups and downs—good and bad times  
 Utopian scheme—a visionary scheme, not practicable

**V**

a Vexed question—a question regarding which there has been much controversy but no solution has been arrived at  
 to Vie with—to compete with

**W**

a Wet blanket—kill joy, a dull fellow who spoils our joy  
 a White elephant—an expensive burdensome but use less thing  
 a White lie—a harmless lie  
 a Wild goose chase—a foolish and useless search  
 a Wolf in a sheep's clothing—a hypocrite, a deceiver  
 to be Within an ace of—almost nearly  
 to Wash one's hands of—to have no connection  
 to Weather the storm—to come out safely through a difficulty  
 to While away—to pass in amusement  
 to Win laurels—to achieve success or win fame  
 to Wind up—to bring to an end  
 Wait upon—to serve  
 Walk over—very easy victory  
 Wash out—quite dull

Wear and tear—decrease in value due to constant use  
 Wide of the mark—beside the purpose  
 Willy-nilly—somehow or the other  
 Windfall—unexpected good fortune  
 With a grain of salt—with some reservation, not at the face value of  
 With a vengeance—excessively  
 With open arms—warmly and cordially  
 Word of mouth—a solemn promise

## ➤ PHRASES

### □ Phrasal Verbs

Many verbs (called ‘phrasal verbs’), when followed by various prepositions or adverbs, acquire an idiomatic sense. Some examples are given below:

#### □ Example

- She backed up (supported) his boyfriend’s claim.
- The current disturbances will soon blow over (pass off).
- The investigating officer produced evidence to bear out (substantiate) the charge of corruption.
- You must not build your hopes upon (rely upon) his promises.
- The matter has been cleared up (explained).
- I readily closed with (accepted) his offer.
- He is ready to dispose of (sell) his car for Rs 1,500.
- Rust has eaten away (corroded) the plate.
- They fixed upon (chose) him to do the work.
- The habit of chewing tobacco has been growing upon (is having stronger and stronger hold over) him.
- About a day ago I saw a beggar hanging about (loitering about) our bungalow.
- These events led up to (culminated in) the establishment of a republic.
- During excavations one of the workmen lighted upon (chanced to find, discovered) a gold idol.
- During her long illness she often longed for (desired) death.
- I could not prevail on (persuade, induce) him to attend the meeting.
- For years I could not shake off (get rid of) my malaria.
- I threatened to show him up (expose him).
- All eyes turned to him because he was the only person who could stave off (prevent, avert) the impending war.
- He is sticking out for (persists in demanding) better terms.
- I must think the matter over (i.e., consider it).
- Train up (educate) a child in the way he should go; and when he is old he will not depart from it.
- That fellow trumped up (concocted, fabricated) a story.
- He seems to be well off (in comfortable circumstances).

## BEAR

- Rajeev bore away (won) many prizes at the school sports.
- The new sultan has been able to bear down (overthrow, crush) all opposition.
- His evidence bears out (confirms, corroborates), the evidence of the first witness.
- In his misfortune god gave him strength to bear up (to keep up spirits, not to despair).
- A religious hope bears up (supports) a man in his trials.
- His evidence did not bear upon (was not relevant to) the inquiry.
- I trust you will bear with (have patience with, show forbearance to) me a few minutes more.

## BRING

- Idleness and luxury bring forth (produce, cause) poverty and want.
- Our teacher often tells us a story to bring out (show) the meaning of a lesson.
- The publishers have recently brought out (published) a cheap edition of their new dictionary.
- He found great difficulty in bringing her round (converting her) to his views.
- She brought up (reared) the orphan as her own child.

## CALL

- His master called for (demanded) an explanation of his conduct.
- New responsibilities often call out (draw forth) virtues and abilities unsuspected before.
- Call in (summon, send for) a doctor immediately.
- He called on me (paid me a brief visit) yesterday.
- The old man could not call up (recollect) past events.

## CARRY

- He agreed to carry out (execute) my orders.
- His passion carried him away (i.e., deprived him of self control).
- His son carried on (managed) his business in his absence.
- Many persons were carried off (killed) by plague.

## CAST

- The ship was cast away (wrecked) on the coast of Africa.
- He was much cast down (depressed) by his loss.
- Some snakes cast off (throw away) their outer skins seasonally.

## COME

- At last the truth has come out (transpired).
- The taxes come to (amount to) a large sum.
- The question came up (was mooted or raised for discussion) before the Municipal Corporation last week.

- I expect he will come round (recover) within a week.
- I hope he will come round (agree) to our views.

**CRY**

- Men of dissolute lives cry down (depreciate) religion, because they would not be under the restraints of it.
- He cried out against (protested against) such injustice.
- That young author is cried up (extolled) by his friends.

**CUT**

- He was cut off (died) in the prime of life.
- You must cut down (reduce) your expenditure.
- He is cut out for (specially fitted to be) a sailor.
- His wife's death cut him up (affected him, distressed him) terribly.

**DO**

- I am done for (ruined).
- Having walked twenty miles, he is quite done up (fatigued, exhausted).
- She has done up (decorated, furnished) her apartment beautifully.

**FALL**

- At last the rioters fell back (retreated, yielded).
- At my friend's wedding reception, I fell in with (met accidentally) my old time friend.
- The measure falls in with (happens to meet) the popular demand.
- The scheme has fallen through (failed) for want of support.
- I am told the two brothers have fallen out (quarreled).
- It is said that the standard of efficiency in public service has recently fallen off (deteriorated).
- In the second school term the attendance fell off (diminished).

**GET**

- His friends expected that he would get off (escape) with a fine.
- The thief got away (escaped) with my cash box.
- I cannot get out (remove) this stain.
- The revolt of the tribal chiefs has been got under (subdued).
- The dog tried to get at (attack) me.
- He has got through (passed) his examination.
- They soon got the fire under (under control) by pouring buckets of water over it.
- You were lucky to get out of (escape from) his clutches.

**GIVE**

- We are credibly informed that the murderer has given himself up (surrendered himself) to the police.
- The doctors have given him up (i.e., have no hope of his recovery).
- Soon after it was given forth (published) and believed by many, that the king was dead.
- The fire gave off (emitted) a dense smoke.
- The strikers seem determined and are not likely to give in (submit, yield).
- It was given out (published, proclaimed) that he was a bankrupt.
- The horses gave out (were exhausted) at the next milestone.
- Give over (abandon) this foolish attempt.
- In his cross examination he ultimately gave himself away (betrayed himself).

**GO**

- You cannot always go by (judge from) appearances.
- It is a good rule to go by (to be guided by) the exact procedure.
- He promised to go into (examine, investigate) the matte.
- Have you anything to go upon (i.e., any foundation for your statement)?
- We have no data to go upon (on which to base our conclusions).
- The story would not go down (be believed).
- The concept went off well (was a success).
- The auditor went over (examined) the balance sheet.
- The poor woman has gone through (suffered) much.
- I must first go through (examine) the accounts.

**HOLD**

- The rebels held out (offered resistance) for about a month.
- He holds out (gives) no promise of future prospects.
- They were held up (stopped) on the highway and robbed by bandits.
- The subject is held over (deferred, postponed) till the next meeting.

**KEEP**

- A few boys were kept in (confined) after school hours.
- I was kept in (confined to the house) by a bad cold.
- They kept up (carried on) a long conversation.
- Little disputes and quarrels are chiefly kept up (maintained) by those who have nothing else to do.
- He is trying his best to keep up (maintain) the reputation of his family.
- The rubber syndicate keeps up (maintain) the price.
- She kept on (continued) talking.
- I shall keep back (conceal) nothing from you.

**KNOCK**

- He has knocked about (wandered about) the world a great deal.
- The dressing table was knocked down (sold at an auction) for fifty rupees.
- We were greatly knocked up (exhausted) after our steep climb.

**LAY**

- The rebels laid down (surrendered) their arms.
- He had laid out (invested) a large sum in railway shares.
- Foolish people, who do not lay out (spend) their money carefully, soon come to grief.
- He is laid up (confined to his bed) with fever.
- He resolved to lay by (save for future needs) a part of his income.

**LET**

- I was let into (made acquainted with) her secret.
- This being his first offence he was let off (punished leniently) with a fine.

**LOOK**

- His uncle looks after (takes care of) him.
- He looks down upon (despises) his poor cousins.
- Look up (search for) the word in the dictionary.
- The old man is looking forward to (expecting with pleasure) the visit of his grand-children.
- I will look into (investigate) the matter.
- I look on (regard) him as my son.
- Some look to (rely on) legislation to hasten the progress of social reforms.
- Look to (be careful about) your manners.
- Prices of piece goods are looking up (rising).
- Things are looking up (improving).
- His friends look up to (respect) him.
- He will not look at (i.e., will reject) your offer.

**MAKE**

- Contentment makes for (conduces to) happiness.
- He made over (presented, gave in charity) his bungalow to the Islam orphanage.
- I cannot make out (discover) the meaning of this verse.
- I cannot make out (read, decipher) his handwriting.
- You have failed to make out (prove) your case.
- Some time ago the two brothers quarreled but they have now made it up (become reconciled).

**PULL**

- Unless we pull together (co-operate, work together in harmony) we cannot succeed.

- My cousin pulled through (passed with difficulty) the examination.
- The doctor says the patient will pull through (recover from his illness).
- It is far easier to pull down (demolish) than to build up.
- He was pulled up (scolded, rebuked) by the president.

**PUT**

- Please put out (extinguish) the light.
- He was put out (vexed, annoyed) when I refused his request for a loan.
- The plaintiff was put out (disconcerted) when the suit was dismissed.
- He tried to put me off (evade me, satisfy me) with promises.
- He has put in (made, sent in) a claim for compensation.
- He put off (postponed) his departure for a week.
- The measure was put through (passed) without opposition.

**RUN**

- On account of overwork he is run down (enfeebled).
- He always runs down (disparages) his rivals.
- The lease of our premises has run out (expired, come to an end).
- He has run through (squandered away) his fortune.
- The tailor's bill has run up to (amounted to) a large amount.
- He has run into (incurred) debt.
- While turning the corner I ran against (chanced to meet) an old frie.
- Recently my expenses have run up (increased) considerably.
- The cistern is running over (overflowing).

**SEE**

- I saw through (detected) the trick.
- It is hard to see into (discern) his motive.
- His friends were present at the station to see him off (witness his departure).

**SET**

- The high court set aside (annulled) the decree of the lower court.
- He immediately set about (took steps towards) organizing the department.
- He set off (started) for Peshawar early this morning.
- The frame sets off the picture (i.e., enhances its beauty by contrast).
- He has set up started business) as a banker.
- I have enough capital to set me up (establish myself) in trade.

- He hired a palatial bungalow and set up for (pretended to be) a millionaire.
- I was obliged to set him down (snub him).
- You may set down (charge) this loss to me.
- Who set you on (instigated you) to do it.
- These seats are set apart (reserved) for ladies.
- In his speech on prohibition, he set forth (explained, made known his views) at length.
- The robbers set upon (attacked) the defenseless travelers.
- Winter in England sets in (begins) about December.

### SPEAK

- In Bombay there is no free library to speak of (worth mentioning).
- I was determined to speak out (express my opinion freely).

### STAND

- They are determined to stand up for (vindicate, maintain) their rights.
- Let this matter stand over (be deferred or postponed) for the present.
- It is hard but I think I can stand it out (endure it to the end without yielding).
- He is always standing up for (championing the cause of) the weak and oppressed.
- We shall be formidable if we stand by (support) one another.

### STRIKE

- He is struck down with (attacked by) paralysis.
- The medical council struck off (removed) his name from the register of medical practitioners.

### TAKE

- The piano takes up (occupies) too much room.
- He takes after (resembles) his father.

- At present I am reading the essays of Bacon but it is sometimes.
- Difficult to take in (comprehend, understand) his meaning.
- Recently he has taken to (become addicted to) opium eating.
- Finally, he was talked into saying (convinced) yes to the proposal.

### TALK

- We talked over (discussed) the matter for an hour.
- I hope to talk him over (convince him by talking) to our view.

### THROW

- My advice was thrown away (wasted) upon him, because he ignored it.
- The bill was thrown out (rejected) by the Assembly.
- In disgust he threw up (resigned) his appointment.
- When he became rich became rich he threw over (abandoned or deserted) all his old friends.

### TURN

- The factory turns out (produces, manufactures) 20,000 lbs of cloth a day.
- If he is lazy, why do not you turn him off (dismiss him)?
- He turned out (proved) to be a scholar.
- His very friends turned against (became hostile to) him.
- Who can say what will turn up (happen) next?
- He promised to come but he never turned up (appeared).

### WORK

- We tempted him with many promises but nothing would work on (influence) him.
- He worked out (solved) the problem in a few minutes.
- He is sure to work up (excite) the mob.
- He worked upon (influenced) the ignorant villagers.

**PART**

**2**

## **VERBAL REASONING**

- 
- **CHAPTER 1**  
Parajumbles
  - **CHAPTER 2**  
Critical Reasoning
  - **CHAPTER 3**  
Fact, Inference, Judgement
  - **CHAPTER 4**  
Paragraph Completion

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1

# Parajumbles

# LEARNING Objectives

This chapter should enable you to:

1. Know the different types of questions on Paragraph arrangement
  2. Strategies to unjumble a Paragraph
  3. The role of ‘key words’ in cracking a jumble faster

## ➤ INTRODUCTION

Sentence Arrangement or Jumbled paragraphs are common test questions at all competitive examinations. Examiner wants to assess an examinee's reading skills as well as reasoning prowess through these questions. In these questions, students are given a paragraph – but the sentences are not in the right order. You will have to rearrange the sentences around a theme so that they make sense. To solve these questions, what is more important is to look out for any piece of information that can help you connect the sentences together.

## ➤ QUESTION PATTERNS

While creating a jumble, the examiners have four basic question patterns in mind. However, management entrance tests are dynamic in nature and the examiners can of course think of other innovative question patterns. But, be confident that if you practice on the four basic question types, given below, then you will be able to develop the general skills to handle other innovative question patterns.

In **Pattern One**, the examiner conforms to the example above. There are no fixed sentences; the whole paragraph is jumbled up, and the examinee has to unjumble the lot.

**In Pattern Two**, the examiner gives the examinee the first sentence in its proper position, and then jumbles the subsequent sentences. The examinee now has one anchor instead of two, but can still manage to find a link. An example of this type follows:

1. To read the characters or the letters of the text does not mean reading in the true sense of the term.
    - A. This mere mechanism of reading becomes altogether automatic at an early period of life.
    - B. You will often find yourself reading words or characters automatically, while your mind is occupied with a totally different subject.
    - C. This can be performed irrespective of attention.
    - D. Neither can I call it reading when it is just to extract the narrative portion of a text from the rest simply for one's personal amusement.
      - (a) BACD
      - (b) DCBA
      - (c) ADCB
      - (d) CBDA

**Pattern Three** is a variation on Pattern Two. In this pattern, the examiner gives the last sentence as an anchor, and jumbles the preceding sentences. An example of this type follows:

- A. The recovery of faith is a crucial problem of our age.

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- B. The deepest theme of history is the conflict of faith and unbelief.
- C. With it we are destined to enjoy triumphant and splendid advance, and without it we suffer failure and ignominy.
- D. Those ages in which faith prevails, in whatever form, are noble and fruitful for the present and the future.
5. All ages in which unbelief, in whatever form, wins an unhappy victory vanish and are forgotten by posterity.
- (a) ABCD              (b) CDBA  
(c) BCAD              (d) ACBD

In **Pattern Four**, the examiner gives the examinee the first and the last sentence as anchors, and jumbles the sentences in the middle. This type of jumble is considered to be the easiest because the examinee has two fixed points to guide him/her. An example of this type follows:

1. An important tenet is that management must not confuse awards with salaries.
  - A. An award is a one-time payment and could be anything up to 25% of the annual salary.
  - B. These can never be retrieved if performance is not stable throughout.
  - C. It would be better to introduce an increment-cum-award system based on the results.
  - D. Some companies give enormous salary hikes for excellent performance in a particular year.
5. In this system, the compensation becomes the hygiene factor, and the award, the motivator.
- (a) DBCA              (b) ABCD  
(c) CDBA              (d) BCDA

### ➤ APPROACHES FOR UNJUMBLED A JUMBLE

Most of the information given in parajumbles is unnecessary for the purpose at hand, i.e., sorting the sentences. *In essence what we are looking for are things that can help us in connecting the sentences.* Some approaches are given below to help identify the sequence of sentences. Generally, in a given parajumble more than one approach will be applicable at the same time, therefore practices identifying which approach/approaches apply to the parajumbles you have to solve.

#### □ 1. Noun-Pronoun Relationship Approach

In noun/pronoun relationships, we know that the noun will come first and will be referred to later using suitable pronouns.

Study the following example:

- A. People can get infected by handling reptiles and then touching their mouths or an open cut.
- B. At first they look the perfect pets: exotic, quiet and tidy.
- C. A study estimates that in 1995, there were as many as 6,700 reptile-caused salmonella infections.
- D. But lizards and other pets can harbor a salmonella bacterium that makes people sick.

- (a) BCAD              (b) BCDA  
(c) ACDB              (d) BDCA

Read sentences C and D carefully. Sentence D contains the noun phrase “a salmonella bacterium” and Sentence C contains the noun phrase “salmonella infections”. What is the relationship between the two? Since the phrase “a salmonella bacterium” introduces the bacterium, it should logically precede the phrase “salmonella infections”. Therefore, the sentence that contains the phrase “a salmonella bacterium” should come before the sentence that contains the phrase “salmonella infections”. So, Sentence D should precede Sentence C! Once you have a link between two sentences, look at the answer choices to see if you are on the right track. If you are, then you have the right answer (Option (d) BDCA) and it is time to move on to the next exercise.

#### □ Example 1

1. These enormous “rivers” – quite inconstant, sometimes shifting, often branching and eddying in manners that defy explanation and prediction – occasionally cause disastrous results.
  - A. One example is El Nino, the periodic catastrophe that plagues the West Coast of America.
  - B. It is rich in life.
  - C. This coast is normally caressed by the cold, rich Humboldt Current.
  - D. Usually the Humboldt hugs the shore and extends 200 to 300 miles out to sea.
  6. It fosters the largest commercial fishery in the world and is the home of one of the mightiest game fish on record, the black marlin.
- (a) ABCD              (b) DCAB  
(c) ACDB              (d) CBAD

#### Solution

Read sentences A and C carefully. Notice the noun/pronoun relationship between the two. Sentence A refers to “*the West Coast of America*” and Sentence C talks about “*this coast*”. Which coast? Obviously “*the West Coast of America*”! Therefore, Sentences A and C are related and Sentence A must come before Sentence C. Now look again. Sentence C talks about “*the cold, rich Humboldt Current*” and Sentence D refers to “*the Humboldt*” obviously these two sentences are also related. Which one should come first? Once you have decided, check the answer choices to see if you are correct. (Option (c) ACDB)

#### □ 2. Acronym Approach: Full Form vs. Short Form

When we introduce someone or something, we use the complete name or title. When we refer to the same someone or something later in the paragraph, we use just the surname or the first name if we are on familiar terms with the person being discussed. If we are discussing an object, we remove the modifiers and just use the noun or a pronoun to refer to it.

In Parajumbles we encounter full and short names or sometimes acronyms of some term or institution. Examples: World Trade Organisation – WTO, Dr. Manmohan Singh – Dr. Singh, Karl Marx – Marx, President George W. Bush – President Bush or The President. The rule is that if both full form as well as short form is present in different sentences, then the sentence containing full form will come before the sentence containing short form.

 Example 2

- A. If you are used to having your stimulation come in from outside, your mind never develops its own habits of thinking and reflecting.
  - B. Marx thought that religion was the opiate, because it soothed people's pain and suffering and prevented them from rising in rebellion.
  - C. If Karl Marx was alive today, he would say that television is the opiate of the people.
  - D. Television and similar entertainments are even more of an opiate because of their addictive tendencies.
    - (a) BACD
    - (b) ADBC
    - (c) BCDA
    - (d) CBDA

### *Solution*

Sentence B has Marx (short form) and sentence C has Karl Marx (full form). So C will come before B. Now look at the options. In option (a), (b) and (c), B is placed before C—hence, rejected. Option (d) is the right answer.

### 3. Time Sequence Approach (TSA) – either Dates or Time Sequence Indicating Words

In a given parajumbles, there may be a time indication given, either by giving years – or by using time indicating words. This provides a way for us to identify the correct sequence of the sentences by arranging the sentences using their proper time sequence. Some words through which a time sequence may be indicated are – Before, after, later, when, etc.

### Example 3

- A. Then two astronomers—the German, Johannes Kepler, and the Italian, Galileo Galilei—started publicly to support the Copernican theory, despite the fact that the orbits it predicted did not quite match the ones observed.
  - B. His idea was that the sun was stationary at the centre and that the earth and the planets move in circular orbits around the sun.
  - C. A simple model was proposed in 1514 by a Polish priest, Nicholas Copernicus.
  - D. Nearly a century passed before this idea was taken seriously.
    - (a) CADB
    - (b) BCAD
    - (c) CBDA
    - (d) CDBA

### Solution

In the above example you will observe that the flow of logic is in the form of a time sequence which flows from the oldest time period to a more contemporary time period. Therefore, Sentence C will be the first sentence. Sentence B expands upon the "*simple model*" proposed, hence, it will be the sentence following C. The next sentence in order of chronology is C—*nearly a century passed*, while the last sentence will be A which completes the sequence from older time to contemporary time thus giving us the answer as CBDA.

 Example 4

- A. By the time he got to Linjeflug four years later, he had learned many lessons, in fact, he began his second stint as top dog by calling the entire company together in a hanger and asking for help, a far cry from his barking out commands just 48 months back.
  - B. At SAS, he arrived at a time crisis.
  - C. This book is chock-a-block full of intrusive stories and practical advice, describing Carton's activities at Vingresor (where he assumed his first presidency at age 32), Linjeflug, and SAS in particular.
  - D. He began at Vingresor as an order giver, not a listener – neither to his people nor to his customers and made every mistake in the book.
    - (a) CDAB
    - (b) CBAD
    - (c) BACD
    - (d) BADC

### **Solution**

Observe the sequence given. Again you will see a chronological order in the parajumble. Sentence C gives us a clear indication that the book is being talked about in current times. Sentence D then starts tracing Carton's career path from the beginning, thus leading us to the correct sequence of CDAB.

## □ 4. Structure Approach

In order to unjumble a group of sentences quickly, it is essential for us to understand how language sticks together to form a cohesive unit. English provides certain sequencing words – firstly, secondly, then, however, consequently, on the other hand, etc. – which writers use to join sentences or ideas together and to provide a smooth flow from one idea to the next. It is essential to learn how to spot these words and learn how to use them correctly. Para-jumble sentences often contain several signal words, combining them in complex ways.

**Cause and Effect Signals:** Look for words or phrases explicitly indicating that one thing causes another or logically determines another. Some examples of such words are:

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accordingly	in order to	because	so...that
consequently	therefore	given	thus
hence	when...then	if...then	

**Support Signal Words:** Look for the words or phrases supporting a given sentence. Sentences containing these words will generally not be the opening sentence. These sentences will follow immediately the sentence supported. Some examples of such words are:

furthermore	additionally	also	and
indeed	besides	as well	too
likewise	moreover		

**Contrast Signals:** Look for function words or phrases (conjunctions, sentence adverbs, etc.) that indicate a contrast between one idea and another, setting up a reversal of a thought.

nevertheless	nonetheless	on the contrary	notwithstanding	and
even though	instead of	despite	in spite of	while
in contrast	although	however		

Let us put into practice what we have discussed so far. Here is a typical example, combining all the points discussed above.

### □ Example 5

- A. When conclusions are carefully excluded, however, and observed facts are given instead, there is never any trouble about the length of the papers.
- B. The reason for this is that those early paragraphs contain judgments that there is little left to be said.
- C. A judgment ("He is a boy", "She is an awful bore") is a conclusion, summing up a large number of previously observed facts.
- D. In fact, they tend to become too long, since inexperienced writers, when told to give facts, often give more than are necessary, because they lack discrimination between the important and the trivial.
- E. It is a common observation among teachers that students almost always have difficulty in writing themes of the required length because their ideas give out after a paragraph or two.
  - (a) ECDAB      (b) CEBAD
  - (c) EACBD      (d) EBCAD

### Solution

Sentence E states the situation in general and gives us information about why students have problems "*in writing themes of the required length*". Sentence B goes on to tell us

"the reason for this", so the two sentences must be related. Similarly, Sentence C is related to Sentence B because both sentences contain the word "*judgment*", with Sentence C explaining what the word means. Once a link of this nature is established, go to the answer choices to see if you are on the right track. D any of the answer choices offer our line of reasoning? Answer (d) does.

In the above jumble, the word "*however*" in Sentence A suggests a contrast to something mentioned previously. In situations of this kind, it is always a good idea to separate the argument clearly. Sentences A and D, therefore, should come together. Now you try.

### □ Example 6

- 1. To read the characters or the letters of the text does not mean reading in the true sense of the word.
- A. This mere mechanism of reading becomes altogether automatic at an early period of life.
- B. You will often find yourself reading words or characters automatically, while your mind is concerned with a totally different subject.
- C. This can be performed irrespective of attention.
- D. Neither can I call it reading when it is just to extract the narrative portion of a text from the rest simply for one's personal amusement.
  - (a) BACD      (b) DCBA
  - (c) ADCB      (d) CBDA

### Solution

The word "*neither*" in Sentence D will tell you that there is something additional that the writer wishes to discuss. Sentences 1, A, B and C all talk about the same idea. Therefore, Sentence D should be the last sentence. Any answers? So, option (a) is the answer.

### □ 5. Linking the Sentences

Let us look at the following statements:

### □ Example 7

- I. As a retention strategy, the company has issued many schemes including ESOPs.
  - II. Given the track record and success of our employees, other companies often look to us as hunting ground for talent.
  - III. The growth of the Indian economy has led to an increased requirement for talented managerial personnel and we believe that the talented manpower is our key strength.
  - IV. Further in order to mitigate the risk we place considerable emphasis on development of leadership skills and on building employee motivation.
- I have deliberately not given the options here.

Read all the statements one by one, and try to find out the opening statement and any possible linkage between/among the statements.

### Solution

Can I be the opening statement – Very Unlikely. It does not introduce any idea or theme. Ideally the 1st statement would be an initiator of ideas or theme of the passage.

Can II be the opening statement – May be.

Can III be the opening statement – May be.

Can IV be the opening statement – Very Unlikely as it talks about an idea which is being “furthered” in this statement. You can also see that statement IV talks about “Mitigating the risk”. What is the risk? So now we would try to find out the “risk” in other statements. This “risk” is present in statement II in the words – “other companies often look to us as hunting ground for talent”. So, statement II will come before statement IV.

As discussed earlier, statement IV furthers an idea, and that idea is present in statement I. Hence, I-IV should come together.

Let us see all that we have established so far:

Link – I-IV and II will come before IV and I cannot be the starting statement.

Now let us look at the options:

- A. I, II, III, IV – Ruled out and I-IV link is not present.
- B. II, I, IV, III – This is the only option left out. Hence, answer.
- C. III, I, IV, II – Ruled out as II comes after IV.
- D. IV, I, III, II – Ruled out as I-IV link is not present. Hence, option (b) is the answer.

### Example 8

Let us look at another example from CAT 2007:

- A. In America, highly educated women, who are in stronger position in the labour market than less qualified ones, have higher rates of marriage than other groups.  
[A is the opening statement as mentioned in the paper. You are required to re-arrange the following four statements.]
- B. Some work supports the Becker thesis, and some appears to contradict it.

- C. And, as with crime, it is equally inconclusive.
- D. But regardless of the conclusion of any particular piece of work, it is hard to establish convincing connections between family changes and economic factors using conventional approaches.
- E. Indeed, just as with crime, an enormous academic literature exists on the validity of the pure economic approach to the evolution of family structures.  
(Options Withheld *pro tem*)

### Solution

Can B be the opening statement – Very Unlikely. There is no mention of “Becker thesis” in the opening statement.

Can C be the opening statement – Two words in the statement – “Crime” and “Inconclusive” make this as the statement after A very unlikely.

Can D be the opening statement – Though it furthers the idea presented in statement A, usage of word like “But” make it unlikely to be the statement coming just after statement A. Besides, statement A does not talk about any piece of work. In fact, statement A is just an opinion.

Can E be the opening statement – Yes. E is the statement after A – both through elimination of other statements and selection.

Next statement should be C, as it again talks about ‘Crime’ and how inconclusive it is (despite “an enormous academics literature exists” as given in statement E).

Next statement:

D should be the last statement as it concludes the whole theme that “it is hard to establish”. Now the whole point is – how do we place statement B and Becker thesis, which finds no mention in the whole passage. Only reasoning that can be given here is – Probably this passage has been taken from a book or project report which has something to do with Becker Thesis, and this passage is just a small part of it.

Now let us look at the options and try to eliminate the options with the help of the conclusions that we have derived so far:

- (1) BCDE – Ruled out as E is the 1st statement.
- (2) DBEC – Ruled out as E is the 1st statement.
- (3) BDCE – Ruled out as E is the 1st statement.
- (4) ECB<sub>D</sub> – Answer.
- (5) EBCD – Ruled out as EC. D is the link. Hence, option (d) is the answer.

## ➤ PRACTICE EXERCISE 1

**Direction for questions 1 to 15:** *The first and the last parts of the sentence are marked I and 6. The rest of the sentence is split into four parts and marked P, Q, R and S. These four parts are not given in their proper order. Read the sentences and find out which of the five combinations is correct.*

- Q 1. 1. It depends upon the  
 P. a new heaven on earth or to destroy  
 Q. user, whether science will be used to create  
 R. the world in a  
 S. outlook and mentality of the  
 6. common conflagration.  
 (a) PQRS                   (b) SPQR  
 (c) QPRS                   (d) SQPR

- Q 2. 1. The English  
 P. plundered the country  
 Q. and raw materials,  
 R. as a result, the Company became rich  
 S. of precious mineral wealth  
 6. and the Indian people became poor.  
 (a) PQSR                   (b) SQPR  
 (c) SRQP                   (d) PSQR

- Q 3. 1. The power and pride  
 P. for in the courage  
 Q. of Sparta was above all  
 R. discipline and skill of these troops  
 S. in its army,  
 6. it found its security and its ideal.  
 (a) SPRQ                   (b) PQRS  
 (c) QSPR                   (d) PRQS

- Q 4. 1. It is the  
 P. the careful observer  
 Q. apparently trivial phenomena  
 R. which gives even the  
 S. intelligent eye of  
 6. their value.  
 (a) SPRQ                   (b) PQRS  
 (c) QSPR                   (d) PRQS

- Q 5. 1. Nuclear test explosions  
 P. food as well as  
 Q. present and future generations  
 R. directly injuring the  
 S. take place, contaminating air and water and  
 6. of mankind.  
 (a) RQSP                   (b) PSQR  
 (c) SPRQ                   (d) PQRS

- Q 6. 1. The club is an  
 P. nearby municipal school, for the children  
 Q. proper and healthy functioning of a  
 R. are constantly disturbed by its  
 S. intolerable nuisance to the  
 6. bizarre activities.  
 (a) QSRP                   (b) SQPR  
 (c) PQRS                   (d) RPSQ

- Q 7. 1. What the country needs  
 P. and change tactics  
 Q. who would encourage players  
 R. are coaches and officials  
 S. to read the game as it progresses  
 6. accordingly.  
 (a) RQPS                   (b) SPRQ  
 (c) QSPR                   (d) RQSP
- Q 8. 1. The need of administration  
 P. which could bring together  
 Q. language of the rulers, should be the one link  
 R. apart from those of liberal education  
 S. render it necessary that English, as the  
 6. linguistic areas.  
 (a) RSQP                   (b) SRQP  
 (c) PQRS                   (d) QSPR
- Q 9. 1. Economic domination  
 P. anger and  
 Q. a different language  
 R. of persons speaking  
 S. often causes  
 6. a sense of revolt.  
 (a) PSRQ                   (b) QRPS  
 (c) RQPS                   (d) RQSP
- Q 10. 1. It may be  
 P. of comparatively little consequence  
 Q. whilst everything depends upon  
 R. how a man is governed from outside  
 S. how he governs  
 6. himself from within.  
 (a) SPRQ                   (b) QSPR  
 (c) PRQS                   (d) RQPS

## ➤ PRACTICE EXERCISE 2

**Direction for questions 1 to 10:** *A number of sentences are given below which, when properly sequenced, form a COHERENT PARAGRAPH. Choose the most LOGICAL ORDER of sentence from the choices given to construct a COHERENT PARAGRAPH.*

- Q 1. A. He somehow knew he would find what he was looking for. So with missionary zeal, he started to climb.  
 B. So instead, for perhaps the first in this life he shed the shackles of reason and placed his trust in his intuition.  
 C. At first he thought about hiring a Sherpa guide to aid him in his climb through the mountains, but, for some strange reason, his instincts told him this was one journey he would have to make alone.  
 D. The next morning, as the first rays of the Indian sun danced along the colourful horizon, Julian set out his trek to the lost land of Savanna.  
 (a) ABCD                   (b) ACBD  
 (c) CDAB                   (d) DCBA

Q 2. A. It reverberates throughout the entire Universe. And you are transmitting that frequency with your thoughts!

B. The frequency you transmit reaches beyond cities, beyond cities, beyond countries beyond the world.

C. You are a human transmission tower, and you are more powerful than any television tower created on earth.

D. Your transmission creates your life and it creates the world.

(a) DACB      (b) BDCA

(c) CDBA      (d) ABCD

Q 3. A. Asian economies will need alternative sources of growth to compensate for the rapid fall in demand from the western markets.

B. But the crisis has exposed the limits of region's dominant economic-growth model.

C. The export-led model that propelled many Asian economies so effectively for the past 30 year must be adapted to a different global economic context.

D. Asia is less exposed to the financial turmoil than the west is, because Asian countries responded to the previous decade's regional crisis by improving their current-account positions, accumulating reserves, and ensuring that their banking systems operated prudently.

(a) DBAC      (b) ABCD

(c) CABD      (d) BCDA

Q 4. A. The dangers of conflicting irrational majoritarianism with enlightened consensus are, indeed, great in developing democracy.

B. Real democracy is about mediating the popular will through a network of institutional structure and the law of the land.

C. While law making and governance are meant to articulate the latter, the judiciary is supposed to protect the former from any kind of excess that might occur, unwittingly or otherwise, in the conduct of legislative and governmental functions.

D. The principle of separation of powers is meant to embody a desirable tension between individual rights and social consensus.

(a) ABCD      (b) BACD

(c) DCAB      (d) DABC

Q 5. A. First may be necessary for immediate relief.

B. However, to cure the problem from the root the treatment at the elemental level is a must.

C. Therefore synergy of modern medical science and ancient Indian wisdom is in the interest of humanity.

D. Allopathic treatment is symptomatic while Ayurveda treats at an elemental level.

(a) DBAC      (b) DABC

(c) DCBA      (d) BDCA

Q 6. A. Such inter-operability of a software service or product appears to be only one aspect, and the interoperable system is itself evolving.

B. Each software product introduces a variation and consequently a change in the system.

C. An operating system must work with applications and other elements in a hardware platform.

D. A software firm while introducing its product or service, therefore, does not strive for mute complementarities alone but tries to bring about a change in the existing structure.

E. In other words the components must be designed to be inter-operable.

(a) BCDAE      (b) CEABD

(c) DAEBC      (d) CBEAD

Q 7. A. Moreover, as argued above, knowledge is entailed not by way of justification as such, but by the realization of good or fruit-ladenness of meaning and actions or iterated actions.

B. Knowledge is required in order to resolve doubts and thus in order to act meaningfully.

C. Therefore the actions in a commonly led daily life are both meaningful and knowledge-driven.

D. Indian theorists argue for a common knowledge, which is obtained through iterated fruitful actions, through the authority of sentences (on words).

E. We argue for four sources of validation of knowledge, viz., sentence, inference, direct perception and analogy.

(a) AECBD      (b) BDCEA

(c) BAECD      (d) EADCB

Q 8. A. But PST has also used satellite pictures to suggest that an ancient fortified town had existed 30 km from Junagadh.

B. Soil and vegetation patterns were used in the search.

C. The site matches the description of Krishna's town in an ancient scripture.

D. PST's primary job at Space Applications Centre has been tracking land use and forest cover with satellite images.

E. An archaeologist however cautioned that remote sensing and scriptures by themselves would not be enough to identify a town ship.

F. It was claimed that soil and vegetation patterns an ancient abandoned site reveal specific patterns that can be picked by satellite images.

(a) DACBEF      (b) DACBFE

(c) FDCABE      (d) FDACBE

Q 9. A. But if, having done so, you did not spare constructive thought as to why your neighbourhood was becoming crime-prone, you would be leaving yourself vulnerable to similar future intrusions.

B. While the international community can only hope that Moscow's hostage drama is resolved without further loss of innocent lives, it would not be

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inappropriate once again to attempt to understand the nature and motivation of the archetypal terrorist who seeks martyrdom.

- C. Today, in an era of globalisation, when the world is increasingly becoming an interpenetrative community, we need to ask whether misconceived state policies do not aid and abet terrorists in the guise of martyrs.
- D. If you were to apprehend an armed nocturnal intruder in your house, your first—and correct—reaction would be to somehow render the criminal powerless.
- E. Ill-regulated communities breed crime.

- (a) BCDEA      (b) DABEC  
(c) CEDAB      (d) BDAEC

- Q 10. A. Products of mutual funds and insurance companies all aimed specifically at women are an example of this fact.

- B. For this purpose, we looked at the district wise figures for working women.
- C. They influence a lot of consumption decisions and hence, there is a distinctive attempt to target them.
- D. The census provides interesting data on the presence of women in different areas in the country, but what is more important is the extent of employment.
- E. Women are a very important target group for a whole host of corporates.

- (a) DCEAB      (b) DBECA  
(c) ECABD      (d) ECADB

### ➤ PRACTICE EXERCISE 3

**Direction for questions 1 to 6:** In each of the following questions, four sentences are given which, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of sentences from among the given choices to construct a coherent paragraph.

- Q 1. A. So Iraq and Afghanistan are now sun-drenched lands enjoying liberty and freedom, overflowing with joy and prosperity?
- B. Yet in a new campaign ad, Republican Party strategists shamelessly take credit for “two more free nations” and “two less terrorist regimes,” using footage of the Iraqi and Afghan Olympic teams.
- C. The bylaws of the International Olympic Committee and the US Olympic Committee strictly prohibit the use of the word “Olympic” and related symbols for political ends.
- D. The US Congress stipulates that the USOC “shall be nonpolitical and may not promote the candidacy of any individual seeking public office.”

- (a) CDBA      (b) CDAB  
(c) DABC      (d) ACDB

- Q 2. A. He is the faceless man who is nowhere and everywhere.

- B. He will live on bread and water, sleep on the streets, move from house to house.

- C. It is impossible for the political leaders of a tame western world that wages its wars by remote control to understand the power of the marginal man, who has been deprived, stripped of his right and driven back to the wall.

- D. This is a man who has lost everything, his home, his family, his country, even his personal history.

- (a) CDAB      (b) DABC  
(c) CABD      (d) CDBA

- Q 3. A. The first vision is cyclical and millennial.

- B. It sees man originating from the greater anthropoid apes, climbing slowly through tribal groups, via the Renaissance and the early Industrial Age, into modern technological man.

- C. The second is linear and utopian.

- D. It sees man originating from a divine source, a fall, exile, a final battle, the regeneration of the world by a Divine Saviour and the foundation of the Kingdom of God on earth.

- (a) ABCD      (b) CBAD  
(c) ACBD      (d) ADCB

- Q 4. A. One may disagree with some of his contentions, but in the aftermath of September 11, one must give credence to his central point: that in the post-Cold War world, the critical distinctions between people are not ideological or economic—they are cultural.

- B. Samuel P Huntington’s book *The Clash of Civilisations* and *The Remaking of World Order* is very topical these days.

- C. Religious, ethnic and racial strands that constitute cultural identity are the central factors shaping associations and antagonisms.

- D. Thus, cultural communities are replacing Cold War blocs and the fault-lines between civilisations are becoming the nerve-centres of conflicts in the world.

- (a) BADC      (b) CBAD  
(c) BACD      (d) DBAC

- Q 5. A. Even when it is self-willed, migration causes dislocation and alienation, creating the need for meaningful identities at the individual level.

- B. The root cause is modernisation that has spurred migration in large numbers.

- C. Simultaneously, education and development within non-western societies stimulates the revitalisation of indigenous identities and culture.

- D. Huntington’s analysis explains why we are witnessing this surging antagonism among Indian and Pakistani youth and expatriates.

- |          |          |
|----------|----------|
| (a) DBCA | (b) BCDA |
| (c) DBAC | (d) BADC |

- Q 6. A. Not too far from the bright lights of Mumbai, a silent scourge is killing thousands of young children.  
 B. Their ill-fed bodies vulnerable to infection, most succumbed to ailments as minor as diarrhea.  
 C. Stalked by chronic hunger and disease, nearly 30,000 children below the age of six have died in the last year alone in the state's rural belt.  
 D. It may be considered the country's dollar magnet and envied for its robust industrial base but this image of Maharashtra cloaks a macabre reality.
- |          |          |
|----------|----------|
| (a) CBDA | (b) DACB |
| (c) BDCA | (d) CDBA |

**Direction for question 7 to 10:** Given below are five sentences S1, P, Q, R and S that make a paragraph. The sentences making the paragraph have been jumbled randomly, only the first sentence S1 is at its right place. Find out the correct sequence in which P, Q, R and S should follow after S1 so that a coherent and meaningful paragraph is made.

- Q 7. S1. There was a time Egypt faced economic crisis.  
 P. Cotton is the chief export commodity of Egypt.  
 Q. Foreign trade depends on cultivation of cotton on large scale.  
 R. It became necessary for Egypt to boost cotton crops.  
 S. Only by means of increasing foreign trade Egypt could survive.
- |          |          |
|----------|----------|
| (a) PQRS | (b) QRPS |
| (c) RPSQ | (d) SRQP |

- Q 8. S1. Exercising daily is a must for good health.  
 P. Luckily, there is no link between the amount of money spent and beneficent exercise, else the poor would have creaking bodies.  
 Q. While some cost you nothing, others may require the investment of some amount of money.  
 R. However, it is important to remember that exercises should not be overdone.  
 S. It can take any form from sedentary ones like walking to vigorous work-outs like a game of squash.
- |          |          |
|----------|----------|
| (a) PQSR | (b) QPRS |
| (c) RSQP | (d) SQPR |

- Q 9. S1. Urban problems differ from state to state and city to city.  
 P. Most of the cities have neither water nor the required pipelines.  
 Q. The population in these cities has grown beyond the planners' imagination.  
 R. However, certain basic problems are common to all cities.  
 S. Only broad macro-planning was done for such cities, without envisaging the future growth, and this has failed to meet the requirements.

- |          |          |
|----------|----------|
| (a) PQSR | (b) QPSR |
| (c) RQSP | (d) RQPS |

- Q 10. S1. Satyajit Ray made several films for children.  
 P. Later film-makers have followed his lead.  
 Q. Today other nations are making children's films in a big way.  
 R. This was at a time when no director considered children as potential audience.  
 S. Ray was, thus, a pioneer in the field.
- |          |          |
|----------|----------|
| (a) SQRP | (b) RSQP |
| (c) PSQR | (d) RSPQ |

#### ➤ PRACTICE EXERCISE 4

**Direction for questions 1 to 10:** Sentences given in each question, when properly sequenced, form a coherent paragraph. The first and last sentences are 1 and 6, and the four in between are labelled A, B, C and D. Choose the most logical order of these four sentences from among the five given choices to construct a coherent paragraph from sentences 1 to 6.

- Q 1. 1. Ever since Pakistan signed on as an ally in the war on terror, human rights advocates have voiced concerns that innocent people would be caught up in the net.  
 A. Roughly half of the youths held are from families deemed uncooperative in the anti-terror fight.  
 B. Seven women and at least 54 children under the age of 18 are languishing in prisons in the tribal areas of the NWFP under the so-called collective responsibility clause, which permits imprisonment of a person for crimes committed by a relative, clan or tribe.  
 C. The decree has most recently been wielded to force tribal leaders to reveal the whereabouts of Qaeda and Taliban suspects.  
 D. Now they're pointing to evidence.  
 6. The rest were imprisoned for the alleged crimes of their fathers.
- |          |          |
|----------|----------|
| (a) BACD | (b) DBCA |
| (c) BCDA | (d) DBAC |

- Q 2. 1. The smaller mobile phones get; the more functions they seem to acquire.  
 A. Beginning early next year, TU Media, a consortium of SK Telecom and other Korean companies, will begin beaming television programmes via satellite to special Digital Multimedia Broadcasting phones.  
 B. The phones, made by Samsung, have 5.5-centimetre screens and cost \$700.  
 C. Now a South Korean firm is rolling out mobiles that double as televisions—and high-definition ones, at that.  
 D. Based on early tests, executives at TU Media think that the new service will improve on SK's

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- existing cellular-based television phone service, which has 3 million subscribers but is often interrupted due to poor transmission.
6. The biggest problem, though, is coming up with programming.  
(a) BDAC      (b) BADC  
(c) CABD      (d) CBAD
- Q 3. 1. Although Maradona recounts his life with neither explanation for his actions (save his love of football) nor fluid penmanship, his story is gripping.  
A. Maradona blames everyone but himself: luck, the media, managers, football executives—you name it, they did it.  
B. And, ironically, the book's omissions are its most revealing element.  
C. In passing the buck, El Diego reveals who he really is—a man accountable to no one.  
D. It's a tale of cataclysmic ups and downs as he hopskotches from the junior leagues of Argentina to four World Cups with the national side, from solidarity with the people of Naples to seeking solace from that other fallen idol, Fidel Castro.  
6. I now believe that Maradona truly is a god and that's why I am an atheist.  
(a) CDAB      (b) DABC  
(c) DBCA      (d) DBAC
- Q 4. 1. The journalists have all but left Haiti.  
A. The suffering caused by the floods is no longer news, and we now work far from the headlines.  
B. Perhaps I have spent so much time in the Third World that I'm immune to it; one develops a thick skin, if only as a defense mechanism.  
C. Some of the aid workers are going as well, myself among them.  
D. How do I feel about the misery I've seen?  
6. Otherwise you would be unable to do your job.  
(a) CBAD      (b) ACBD  
(c) BCDA      (d) ACDB
- Q 5. 1. Many space enthusiasts now warn that only private enterprise will truly drive human expansion into space, and yet America's government keeps ignoring them.  
A. It may seem surprising, but there are large numbers of people who would spend hundreds of thousands of dollars on a trip into space.  
B. Tourism and entertainment are both possibilities.  
C. Two people, so far, have spent \$ 20 m, and another two are on their way.  
D. What might cause market forces to take up the mission?  
6. Film and television companies would also spend tens of millions if they could.  
(a) DCAB      (b) BACD  
(c) DBAC      (d) ACBD
- Q 6. 1. Zimbabwe provides a dramatic illustration of how stagy economic policies, corruptly enforced, swiftly impoverish.
- A. The main reason the continent is so poor today is that Mugabe-style incompetent tyranny has been common since independence.  
B. But Zimbabwe's curse is also Africa's.  
C. The most important question for Africans now is whether Mr. Mugabe represents not only their past, but their future as well.  
D. In the past five years, Mr. Mugabe's contempt for property rights has made half the population dependent on food aid, while his cronies help themselves to other people's land and savings, and build helipads for their own mansions.  
6. There are encouraging signs that he does not.  
(a) DBCA      (b) CDBA  
(c) DCAB      (d) DBAC
- Q 7. 1. If Africans are to have a chance of pulling themselves out of penury, they need governments that do not stand in their way.  
A. Fiscal realism is more common now than a decade ago, as the continent's generally lower inflation rates attest.  
B. They need leaders who uphold the law impartially, but otherwise let people do what they wish.  
C. But graft is still widespread.  
D. They need governments that pass sensible budgets and stick to them.  
6. Angola's rulers were accused of having wasted or misappropriated \$ 4 billion in five years—more than 9% of GDP each year.  
(a) BADC      (b) BDAC  
(c) DACB      (d) DBAC
- Q 8. 1. Africa's two most important countries—Nigeria and South Africa—are doing several things right.  
A. If Africa as a whole is to prosper, the majority of its citizens will have to produce more, fashioning goods or providing services that the rest of the world wants to buy.  
B. Given that most Africans are subsistence farmers, that will not be possible without a vast social upheaval, with unpredictable consequences.  
C. Both have swapped tyranny for democracy, and both are using their diplomatic and military muscle to end some of their neighbours' wars.  
D. But both governments are worryingly dependent on a single source of revenue: oil, in Nigeria's case, and white taxpayers, in South Africa's.  
6. It is a daunting challenge, but the alternative is likely to be worse.  
(a) CDAB      (b) DCAB  
(c) CBDA      (d) DBAC
- Q 9. 1. The truth is that traditional economic labels are less and less useful.  
A. Different organisations and banks use different groupings.  
B. The old "third world" label has been replaced by "developing" or "emerging" economies to portray a more positive image.

- C. “Industrial economies”, the old name used for rich countries, is now meaningless: industry accounts for only 16% of jobs in America.
- D. But the breakdown of old categories has bred confusion.
6. For instance, the United Nations and JP Morgan Chase count Hong Kong, Singapore, South Korea and Taiwan as developing (or emerging) economies.
- (a) ADBC      (b) CBAD  
 (c) ABCD      (d) CBDA
- Q 10. 1. Jane Austen died and came back as a fantasy writer.
- A. The book itself has been called, by a media ever eager to summarise even 800-page hardcover tomes into a snappy catchphrase, “Harry Potter for adults”.
- B. Unlike her previous avatar, the 21st-century Ms Clarke (nee Austen) seems to be enjoying the attention showered upon her and far from publishing her first book under a pseudonym, has been a central performer at her own media circus.
- C. The book, which she now calls her “debut”, began attracting media attention long before publication and on release it’s been universally lauded.
- D. In her new avatar, she calls herself Susanna Clarke, lives in Cambridge, and has authored a fat historical fantasy novel set in the year 1860.
6. It’s also been praised by perhaps the best living author of British fantasy novels, Neil Gaiman, as “unquestionably the finest English novel of the fantastic written in the past seventy years.”
- (a) BADC      (b) DBCA  
 (c) DCAB      (d) DCBA

## ➤ PRACTICE EXERCISE 5

**Direction for questions 1 to 10:** In each question below five sentences lettered A, B, C, D, E are given, followed by four options each indicating two sentences, which when interchanged, create a logical sequence of five sentences.

- Q 1. A. The Indian retail sector is on the threshold of something big.
- B. The Retailer’s Association of India, formed recently by the top 25 modern retailers in the country, estimates that the annual retail consumption in the country is around Rs 9 lakh crores, but with value addition, could be scaled upto Rs 12 lakh crores.
- C. With the total retail trade estimated at 200 billion dollars and the organised segment accounting for a mere 2 per cent of this, almost all the organised players have in place, aggressive expansion plans,

- spreading either to more cities or to larger towns.
- D. Also, the development of modern retail in India could enable enhanced productivity, employment and economic growth.
- E. In fact, the Association is confident that modern retail would have a beneficial trickle-down effect on sectors such as steel, cement and glass, bring larger revenues for the state governments and boost sectors such as tourism and hotels.
- (a) A and B      (b) B and C  
 (c) A and C      (d) B and D
- Q 2. A. Sadruddin insisted that he had equal sympathy for eastern and western people.
- B. He seemed the favourite to become the UN’s Secretary General in 1981, but the Soviet Union vetoed his candidature, claiming he was too pro-western, and vetoed him again in 1991.
- C. Around that time, stories circulated that the prince was a secret agent for the British, using his job as a cover for intelligence gathering.
- D. It was almost certainly nonsense, but the Russians may have believed it.
- E. Sadruddin stepped down after 12 years, the longest any refugee chief has held the job, but returned to the UN at times of crisis to give help, notably in Afghanistan, during the Soviet occupation and in Iraq, after the first Gulf War.
- (a) A and E      (b) B and D  
 (c) D and E      (d) B and C
- Q 3. A. In the maze of India’s twisted economic policies, it is difficult to find a more complex bundle of contradictions than the aviation policy.
- B. While the government is omnipresent in the closely guarded sector, a whiff of fresh air has started blowing in the form of ‘open skies’ agreements with Thailand, some South Asian countries and Sri Lanka.
- C. Piecemeal liberalization would only harm the sector rather than encourage growth, and it will put both passengers and the industry at a disadvantage.
- D. While implementation of the ‘open skies’ agreements will take time, these pacts indicate the hurry to put the horse before the cart.
- E. Much more is on the cards, if senior bureaucrats are to be taken, at face value, but concerns have cropped up. Since the current trend indicates the lack of a ‘wholesome’ strategy.
- (a) A and C      (b) B and C  
 (c) B and D      (d) C and D
- Q 4. A. That is, availability of a service, which can throw some light on the possible search terms specific to one’s subject will certainly be useful.
- B. Refining the search query through trial and error process is obviously a laborious exercise.
- C. Let us have a look at some services that can be used for this purpose.

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- D. As Google churns out one service after another with amazing regularity, of late users find it difficult to pass even one week without reference to it.
- E. Recently, Google has rolled out another service for helping its users utilise its search service a little more efficiently.
- (a) B and D      (b) A and B  
(c) C and D      (d) A and C
- Q 5. A. The fiscal picture at the end of September reveals a revenue deficit of 79 per cent of budget estimate and a fiscal deficit of 39 per cent.
- B. Deficit reduction is to ensure that government borrowings are within sustainable limits and the borrowed funds are used productively for development and creation of capital assets.
- C. Fiscal soundness is not a question of mere numerical deficit targets.
- D. The figures for October show further deterioration with revenue deficit at 83.9 per cent and fiscal deficit at 45.2 per cent.
- E. The deficit targets have been exceeded.
- (a) A and B      (b) A and C  
(c) B and D      (d) C and D
- Q 6. A. But drug company executives have insisted that their industry is fundamentally healthy and their expensive research efforts will pay off.
- B. Three major companies disclosed serious problems with important medicines.
- C. This has thrown the spotlight on the fact that the drug industry is failing in its core business of finding new medicines.
- D. The decline in drug research and development has been an open secret among analysts and scientists for years.
- E. Worldwide drug industry is clearly ailing.
- (a) B and E      (b) A and E  
(c) C and D      (d) C and E
- Q 7. A. To say that not all is well with higher education will be something of an understatement.
- B. Problems relating to higher education—privatisation and commercialisation, political interference and corruption, mismanagement and agitations, falling standards and irrelevance—are topics of public discussion almost on a day-to-day basis.
- C. Is it possible to locate some key factors that can explain the mess that higher education in the country finds itself in?
- D. The prolific and unplanned expansion of higher education since independence is undoubtedly a major factor responsible for this malaise.
- E. That is the question that Dr. Mutton, a former professor, vice-chancellor and secretary of the association of Asian Universities and one still actively engaged in matters relating to higher education, discusses in his latest book.
- (a) D and E      (b) A and D  
(c) B and D      (d) D and C
- Q 8. A. The sunshine days are there again for the Indian steel industry.
- B. In the emerging global scene, experts predict a shift in steel use away from the developed world towards nations like China and India.
- C. A combination of factors appears to be working to push it on to a higher orbit.
- D. If the steel producers are grinning, consumers at large are wearing a grim look.
- E. The way the industry is slowly moving into a new era, chances are that prices will head only one way – northward.
- (a) B and E      (b) A and B  
(c) A and C      (d) B and D
- Q 9. A. Business Process Outsourcing (BPO) is one of the hottest career destinations for young Indians.
- B. The number of Indians working in this sector was about 2,50,000 by March 2004 and is to grow to 12 million in three years.
- C. In addition to infrastructure facilities, BPO units have been exempted from several labour laws and environmental regulations.
- D. In addition, the unleashing of so called incentives to this sector by state governments is boosting their growth.
- E. This supersonic trajectory is fuelled by the economic compulsions of North American and European corporations to shift their low-end jobs to countries like India.
- (a) D and E      (b) B and D  
(c) C and D      (d) C and E
- Q 10. A. Nobody knows how many NGOs are there in India.
- B. It is said that there are at least a thousand of them with an annual income of Rs 1 crore and more.
- C. Estimates vary from a million to several times that number.
- D. By definition, Non-Governmental Organisations (NGOs) must have come into being along with governments.
- E. Though NGOs have, in this manner, a long history, it is only in the past 20 years that they have become ubiquitous.
- (a) B and E      (b) A and B  
(c) D and E      (d) B and C

### ➤ PRACTICE EXERCISE 6

#### ▣ “Out of Context” Statement Identification

A new Type of Para Jumble questions Surfaced in the recent online CAT papers. In these questions, besides the usual paragraph arrangement, students were also required to identify one such statement which was out of context. In a

nutshell, these questions can be said to be amalgamation of Para Jumble and Odd One out questions.

Ideally, in these questions, the basic idea of solving a paragraph arrangement question remains the same. Only that, you will be required to identify the statement that does not fit into the theme of paragraph. Following practice exercise will provide you some idea regarding these questions and their solution.

**Direction for questions 1 to 10: Go through the direction given below and solve the questions based on it.**

In each of the following questions, four sentences are given out of which, one sentence does not fit into the context. Remaining three sentences, when put together, form a coherent paragraph. In other words, three of the four sentences, when put in a particular sequential order, will form a coherent paragraph, but one of the sentences will be out of context and will convey a different message than the other sentences taken together. You are required to identify that Odd-One-Out sentence which does not fits into the context.

**Q 1.** A. The mentality of “just do it and be done with it” can sometimes preclude what we know to be the logical and necessary “means to an end” of a successful implementation.

B. However, by utilizing project management methodology, projects can be completed on time, within budget, and to the satisfaction of all involved stakeholders.

C. Time spent compiling a business case that includes a cost and benefit analysis is an extremely valuable investment.

D. As is often the case when a project needs to be completed and completed in a hurry, proactive steps such as research, planning, communication, and review are left by the wayside.

**Q 2.** A. The “Warren Buffett Indicator,” also known as the “Total-Market-Cap to GDP Ratio,” is breaching sell-alert status and a collapse may happen at any moment.

B. So with an inevitable crash looming, what are Main Street investors to do?

C. “A lot of people think I am lucky,” Sean said. “But it has nothing to do with luck. It has everything to do with certain tools I use.”

D. One option is to sell all your stocks and stuff your money under the mattress, and another option is to risk everything and ride out the storm.

**Q 3.** A. Rick Caruso, the founder and CEO of Caruso Affiliated, a privately held real estate company, wrote in a recent LinkedIn post that success does not come easy.

B. But there are certain steps you can take, or rules to follow, that can help, he says.

C. There’s no magical formula for achieving it, he says—and most people become successful “by falling over and over again.”

D. This does not mean you should not physically sit still. It means you should never let your mind or body become idle without purpose, Caruso explains.

**Q 4.** A. Android was built from the ground-up to enable developers to create compelling mobile applications that take full advantage of all a handset has to offer.

B. The Google team loves creating surprises for users. Here’s how to find Google’s Easter eggs, for the two latest versions of its Android operating system.

C. Android 4.0 Ice Cream Sandwich—To make this fun animation appear, go to Settings, About, and then keep tapping the Android version number until Nyandroid appears.

D. Android (4.1, 4.2, 4.3) Jelly Bean—To access it, go to Settings, About Phone, and, once again, keep tapping the version number, but this time you’ll see Google’s signature chocolate bar. Tap on it, and the tiles will appear.

**Q 5.** A. Tigers killing elephant calves is not a rare occurrence.

B. Angered tigers are capable of killing even a bull elephant, as epitomised by E.A. Smythies in Journal of Bombay Natural History Society.

C. And one factor that could be controlling the population of the around 800 elephants of the Corbett landscape is predation on calves by tigers.

D. We walked from the saddle dam road to the main road—a distance of 6 km—watching the goral, the langur and birds and taking pictures of profusely flowering plants.

**Q 6.** A. I’m encouraging people to just get outside and enjoy nature. They can do it in their backyard or backpack 20 miles into the wilderness.

B. But the universe itself and everything we can touch are made of the most beautiful geometric patterns imaginable.

C. If you could see the world through my eyes, you would know how perfect it is, how much order runs through it, and how much structure is hidden in its tiniest parts.

D. We’re so often victims of things—I see the violence too, the disease, the poverty stretching far and wide.

**Q 7.** A. I’ve always wondered why married people lose no opportunity to litter their conversations with marriage problems, woefully pitying one another.

B. In Western cultures, more than 90 per cent of people marry by age 50. Healthy marriages are good for couples’ mental and physical health.

C. But at the same time, they will do everything to avoid (and make others avoid) single people who want to share their problems of singleness.

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- D. They seem to suggest: get married and all your problems will vanish.
- Q 8. A. Apple, unlike any other company in the world, has its identity tied to one individual: Steve Jobs.  
B. Others began working on the Mac at later dates.  
C. But, Jobs did not do it alone.  
D. Apple's first CEO, Michael Scott, gave us a bunch of colour on the early days, and Steve Wozniak helped with a list of early employees.
- Q 9. A. There's a reason why overwhelming evidence has not spurred public action against global warming.  
B. In the run-up to Earth Day this year, two major reports were released by the UN's Intergovernmental Panel on Climate Change,  
C. Both reports cited substantially more evidence of substantially more global warming and related impacts than past reports have, and they did so more lucidly than in past iterations.  
D. The IPCC is a scientific body under the auspices of the United Nations (UN).
- Q 10. A. Big data refers to the idea that society can do things with a large body of data that were not possible when working with smaller amounts.  
B. The term was originally applied a decade ago to massive datasets from astrophysics, genomics and internet search engines, and to machine-learning systems that only work well when given lots of data to chew on.  
C. When you combine someone's personal information with vast external data sets, you can infer new facts about that person.  
D. Now it refers to the application of data-analysis and statistics in new areas, from retailing to human resources.

# ANSWERS



## ☛ PRACTICE EXERCISE 1

Q. No.	Answer						
1	(d)	2	(d)	3	(c)	4	(a)
5	(c)	6	(b)	7	(d)	8	(a)
9	(d)	10	(c)				

## ☛ PRACTICE EXERCISE 2

Q. No.	Answer						
1	(d)	2	(c)	3	(a)	4	(c)
5	(b)	6	(d)	7	(b)	8	(b)
9	(d)	10	(d)				

## ☛ PRACTICE EXERCISE 3

Q. No.	Answer						
1	(a)	2	(a)	3	(d)	4	(c)
5	(c)	6	(b)	7	(d)	8	(d)
9	(d)	10	(d)				

## ☛ PRACTICE EXERCISE 4

Q. No.	Answer						
1	(b)	2	(c)	3	(d)	4	(d)
5	(c)	6	(d)	7	(b)	8	(a)
9	(d)	10	(d)				

## ☛ PRACTICE EXERCISE 5

Q. No.	Answer						
1	(d)	2	(a)	3	(d)	4	(b)
5	(b)	6	(b)	7	(a)	8	(b)
9	(d)	10	(d)				

## ☛ PRACTICE EXERCISE 6

Q. No.	Answer						
1	(c)	2	(c)	3	(d)	4	(a)
5	(d)	6	(a)	7	(b)	8	(b)
9	(d)	10	(c)				

## HINTS AND EXPLANATIONS

### PRACTICE EXERCISE 2



6. (d) The paragraph must start with C as it introduces the subject, followed by B which carries on the idea of software.
7. (b) The paragraph must start with B as it introduces knowledge, and the idea is continued in option A.
8. (b) The paragraph must start with D followed by AC, then F should precede E.
9. (d) DA is obviously a sequence. Now, we have to find out which of the remaining sentences does DA elaborate. Or does it elaborate none and we can therefore start with DA? On close scrutiny, we find DA is an elaboration of B.
10. (d) “This fact” at the end of A refers to C. Thus CA is a sequence and option A gets ruled out. Again, “this purpose” in B is a reference to D. Thus DB is a sequence and option C gets ruled out. “They” in C is a reference to “women” in E. So, clearly we have two sequences—ECA and DB. If you place DB first, it does not make sense. Hence, option (b) is ruled out.

### PRACTICE EXERCISE 3



1. (a) Short and perhaps therefore easy! C is the opening sentence. D elaborates it further. B gives a turn to the para. And A comes as the conclusion.
2. (a) The only independent sentence is C and it should therefore come at the beginning. Do not be confused by “it” at the beginning: it is an indefinite pronoun here. The passage is about “the marginal man” talked about in C. And then there is a gradual sequencing: *the marginal man, this is a man, he*. So either A or D. But A is a better arrangement as far as tense is concerned.
3. (d) Easy one! The clue lies in the words “cyclical” and “linear”.
4. (c) Clearly, B is the initial sentence and D the conclusion.
5. (c) We begin with D, the only independent sentence. Also, BA is a sequence.
6. (b) D is the first sentence as it outlines the paradoxical situation. The rest of the passage goes on to delineate the second part of the paradox.

### PRACTICE EXERCISE 4



1. (b) “They” in D refers to “human rights advocates” in 1. Hence, 1D is a sequence. Thus A and C are ruled out.

Again, “the rest” in 6 is obviously a sequel to “half of the youths” in A. Which means A6 is a sequence. Hence, option (d) is ruled out.

2. (c) C tells us about “the more functions” in 1. Hence, 1C is a sequence. Thus A and B are ruled out. And “the phones” in B refers to the “special Digital Multimedia Broadcasting phones” in A. Thus AB is a sequence. Hence, option (d) is ruled out.
3. (d) Look at the first word *It's* (focus on *it*) in D. It refers to “his story” in 1. Thus 1D is a sequence. Hence, A and D are ruled out. And what is one of “the book's omissions”? That Maradona does not blame himself. In other words, A is an explanation of B. Thus BA is a sequence. Hence, option (b) is ruled out.
4. (d) The clue lies in “otherwise” in 6, which here means “if you do not develop a thick skin”. Obviously, B6 is a sequence. Now, D is the only such choice where B can precede 6.
5. (c) B is the answer to D. Hence, DB is a sequence. Besides, C6 is another sequence.
6. (d) 6 is the answer to the question raised in C. Thus C6 is an obvious sequence. Enough for our answer!
7. (b) 6 is an example of what is mentioned in C. Again, we get C6 as a sequence. A goes best with D, thus giving us DA as another sequence.
8. (a) Note the pronoun *both* in C and D. It refers to “Nigeria and South Africa” mentioned in 1. But D should come later because it is a sentence that begins with *But*.
9. (d) Here 6 is an elaboration of A. We thus get A6. Enough for our answer!
10. (d) Can B come before D? No. Because “Ms Clarke” in B can come only after “Susanna Clarke” in D. Hence, A and D are ruled out. Again, note that “the book” in C refers to “a fat historical fantasy novel” in D. Hence, DC is a sequence. Thus option (b) is ruled out.

### PRACTICE EXERCISE 5



1. (d) A introducing the topic must begin the passage, but instead of B, D should follow A, AD being mandatory. C should be next with its data on retail trade. CB being mandatory, B giving data on ‘The retailer's Association of India', should follow C, thus B and D should be interchanged to make the sequence a

coherent paragraph, E already concluding the passage appropriately with its ‘the Association is confident’ etc. ADCBE is the right sequence, hence option (d) is the answer.

2. (a) E introducing the topic, describing ‘Sadruddin stepped down after 12 years’ etc., is the best starter but here E is wrongly placed. B should be next, its ‘He’ referring to ‘Sadruddin’ of E which should have begun the passage, EB being mandatory. C is at the right place with its ‘stories circulated’ etc., similarly, D is also at the right place, again CD being mandatory. Only A is an appropriate conclusion of the coherent passage but is misplaced. So only interchanging A and E would make the passage coherent. EBCDA is the right sequence, hence option (a) is the answer.
3. (d) A initiating the argument is an appropriate opener of the passage. B picking up well the argument of ‘the aviation policy’ being ‘bundle of contradictions’ advances it with ‘whiff of fresh air’ etc. but B should be followed by D, its ‘open skies’ agreement argument picks up appropriately from B, instead, C wrongly follows it, so both C and D are misplaced. E with its ‘Much more is on the cards’ is an apt conclusion of the passage. ABDCE is the right sequence, hence option (d) is the answer.
4. (b) B introducing the topic is the best starter for the paragraph. A should be next its ‘That is availability of service’ picks up the argument from B. Both A and B are misplaced. C, D and E are in right sequence. BA being mandatory A and B are to be interchanged to bring out a coherent passage. BACDE is the right sequence, hence option (b) is the answer.
5. (b) C initiating the argument is the best starter but is misplaced. B is rightly placed but C is misplaced. B is rightly placed as it picks up the argument from C and advances it appropriately. A with its ‘fiscal picture’ etc. should follow B but A is also misplaced. D and E are in order and rightly placed. CB and AD being the links, CBADE is the right sequence and B is the answer as A and C are to be interchanged to make a coherent passage.
6. (b) E being the most general statement or introducing the topic is the best starter but it is misplaced. B with its ‘Three major companies’ etc. should follow E as it picks up E’s argument appropriately and advances the argument. C should be next its ‘This has thrown’ etc. refers to B’s describing ‘Three companies’ have ‘serious problems’. D must be next giving the reason behind the ‘serious problems’. A is an appropriate conclusion but it also is misplaced, interchanging A and E would set right the sequence, i.e., EBCDA. Hence, option (b) is the answer.
7. (a) A being the most general statement or initiating the argument must begin the passage. B should be the next, as it sums up the argument appropriately and

gives the details of ‘Problems relating to higher education’. C has the proper logical question, should follow B. Now comes the disruption, E should follow C with its ‘That is the question’ etc. the logical corollary to C’s question, but it is misplaced in the end as the conclusion, which it is not. What D says is the appropriate conclusion of the passage which is also misplaced. So, D and E should be interchanged to make the sequence coherent, i.e., ABCED. Hence, option (a) is the answer.

8. (b) B being the most effective and optimistic starter is the suitable statement as it initiates the topic telling that there is ‘a shift in steel use’, there are ‘sunshine days again in the Indian steel industry.’ A sustains the spirit or the force by stating that. C is the logical corollary with its ‘A combination of factors’ etc. D is rightly placed. E is rightly placed at the end, as what it says concludes the paragraph appropriately with its contrasting picture. A and B are misplaced which can be set right on interchanging them. BACDE is the sequence, hence option (b) is the answer.
9. (d) A telling BPO ‘is one of the hottest career’ etc. is the suitable starter. B with its details and data on BPO sector should be the next. But E, its ‘This supersonic trajectory’ etc. is the logical corollary of AB, so it is misplaced. D with its ‘In addition’ etc. is rightly placed. C with its ‘In addition to infrastructure facilities’ etc. is the appropriate conclusion but it is also misplaced. So, C and E should be interchanged to make the right sequence, i.e., ABEDC, hence option (d) is the answer.
10. (d) A initiating the argument should obviously be the opening sentence. But then C with its ‘Estimates vary’ etc. should be next, so C is misplaced. B with its ‘there are at least thousand of them’ being the logical corollary, should follow, which again is misplaced. D with its ‘By definition’ etc. has rightly followed. E appropriately concluding the sequence with its ‘NGOs have, in this manner, a long history’ etc. is rightly placed in the end. So, B and C have to be interchanged to make the sequence coherent—ACBDE, hence option (d) is the answer.

## PRACTICE EXERCISE 6



1. (c) DAB is the link. It talks about project management methodology.
2. (c) ABD is the link. It talks about the crash.
3. (d) ACB is the link. It talks about the success according to Rick Caruso.
4. (a) BCD is the link. It talks about How to unlock two android Easter eggs while A talks about why it was built up?

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|--|--|
| 5. (d) ACB is the link. It talks about tigers killing elephants for the population control.              | 8. (b) ACD is the link as it talks about not only Steve Jobs contributed to apple but others also.   |
| 6. (a) CDB is the link as it talks about the pattern of the universe and we can feel that.               | 9. (d) Clearly ABC forms a link about the reports while D states about IPCC.   |
| 7. (b) ACD is the link it talks about being single while B talks about the positive aspects of marriage. | 10. (c) ABD forms the link, it talks about the big data and its applications while C states about to infer people along with personal information. |

# 2

# Critical Reasoning

## LEARNING Objectives

This chapter should enable you to understand:

1. The different types of question on Critical Reasoning
2. The components of an argument
3. The process of error identification in answer choices
4. How these skills facilitate performance on reading comprehension section

Critical Reasoning, as a test item, is a regular feature on CAT and other B-school examinations.

Critical Reasoning Questions are designed to test the following:

### **1. Identifying the Argument**

An argument does not mean conflict in Critical Reasoning. Argument is simply a piece of reasoning which tries to prove or disapprove an assertion.

(Question would be like—Which of the following best expresses the main point of the passage above?)

### **2. Flaw in Reasoning**

An example of flaw in reasoning can be—Sometimes in attempt to prove something on the basis of an argument, generalization may be done. This generalization may not be true always.

(Which of the following options exhibit reasoning similar to the one used in this given question?)

### **3. Wrong Assumption Based Conclusions**

An assumption is something which is there in the mind of the person while speaking or writing.

(Question would be like—Given conclusion/argument in the question depends upon which of the following assumption?)

**Difference between Assumption and Conclusion is –** Assumption is unstated, it is in your mind. You do not speak this. Whereas conclusion is stated, you speak this out and it can be verified for being right or wrong through stated words.

For example, A Father said to his son—if you do not attend your classes regularly, you will not get good marks in examinations. In this case, father assumes that (a) son will listen to his father. Conclusion that can be derived is—to get good marks in examinations, one is required to attend the classes regularly.

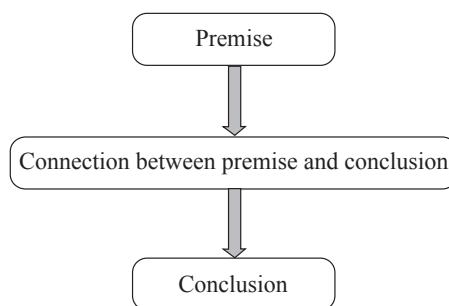
Usually, in CR questions, one is required to understand the assumption to identify the gap in the arguments and subsequent conclusion.

## □ 4. Strengthening or Weakening an Argument

To strengthen or weaken an argument, student is required to understand the argument and reasoning put forward.

Before we move ahead, let us know the ingredients of a Critical Reasoning question:

There are three parts of a Critical Reasoning question:



In normal situations, a premise is a ‘given’ statement, and hence, cannot be used to weakening or strengthening the argument. However, this should not be taken as a rule.

Mostly, strengthening or weakening happens at 2nd level—‘Connection between premise and conclusion’. This connection can happen using data or logical argument, and if a reliable data or logic can be given against the given argument in the question, then the argument has got weakened. On the other hand, if a reliable data or logic can be given in favour, then the argument has got strengthened.

### □ Example 1

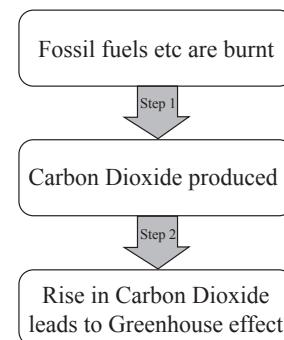
When fossil fuels like coal, oil and other substances are burnt, they produce Carbon Dioxide which is already present in the atmosphere. However, as the Carbon Dioxide level rises, it leads to the greenhouse effect. Already there is a lot of Carbon Dioxide which has caused an increase in the temperature, in order to stem this trend, growth in industrial production must be slowed down or methods of production without Carbon Dioxide emission must be afound.

Which of the following, if true, would tend to weaken the impact of the above conclusion?

1. Most of the Carbon Dioxide responsible for the greenhouse effect comes from automobiles.
2. Many cold countries would benefit from a rise in temperature.
3. Carbon Monoxide is more harmful than Carbon Dioxide.
4. Industry is soon shifting to synthetic fuel extracted from waste.

### Solution

Understand the underlying reasoning:



Conclusion derived is—To stem this trend (Greenhouse effect), industrial production must be slowed down (here the assumption is that industrial production is responsible for Carbon Dioxide emission and hence, rise in Greenhouse effect) OR

*Methods of production without Carbon Dioxide emission must be found.*

Which of the following, if true, would tend to weaken the impact of the above conclusion?

How can we weaken this:

There are two steps in the whole reasoning chain (as shown in the diagram). To weaken the conclusion drawn, we are required to weaken either step 1 or step 2 or both.

#### Weakening of Step 1:

If we somehow prove that Fossil fuels like coal, oil and other substances do not produce Carbon Dioxide.

#### Weakening of Step 2:

If we somehow prove that rise in Carbon Dioxide does not contribute significantly in the Greenhouse effect, or if we can prove that there are some other significant source of production of Carbon Dioxide so that we can shift the onus of Greenhouse effect from the Industrial production to some other factor.

#### Now let us look at the options:

- Q 1. Many cold countries would benefit from a rise in temperature.

### Solution

This option may be true factually that rise in temperature may benefit cold countries, although it is still to be verified. Although, in any case, this does not weaken the reasoning given in the question.

Q 2. Carbon Monoxide is more harmful than Carbon Dioxide.

### **Solution**

May be true, but not related to the logic as given in the question.

Q 3. Industry is soon shifting to synthetic fuel extracted from waste.

### **Solution**

Not related to the logic as given in the question.

Q 4. Most of the Carbon Dioxide responsible for the greenhouse effect comes from automobiles.

### **Solution**

This shifts the onus of emission of Carbon Dioxide from the Industries to the automobile. Hence, weakens the reasoning used in the question.

## ➤ HOW TO APPROACH A CRITICAL REASONING QUESTION

Now we will learn some of techniques to identify the relevance of the reasoning and the ways in which reasoning goes awry.

### **□ 1. Fallacy of Irrelevant Reason**

A reasoning is said to be fallacious if it is not relevant in the case given. At the same time, it must be noted that it need not be necessarily wrong. It may be true, but not relevant in the case given, and hence, fails to establish logical connection between the argument and conclusion. Understand that relevance is not same as being strong reason.

### **□ Example 2**

Hindus are protesting against breaking off the Ram-setu, an ancient monument, because they believe that this monument is made by Lord Rama himself and breaking it off will hurt their religious sentiments. According to a recent finding by a politician, “Rama was not having an Engineering degree, hence, this monument should be broken”.

### **Solution**

There are two parts of this passage:

1st part – The monument was made by Lord Rama, and hence, breaking it off will hurt the sentiments of Hindus.

2nd part – Since Lord Rama was not having an Engineering degree, so he cannot construct a monument.

At the end, conclusion is derived as—since the monument was not made by Lord Rama, breaking it off will not hurt the sentiments of Hindus.

Now we will try to find flaws in this whole passage:

1st part introduces the statements, and hence, we will not verify that “breaking off the monument hurts the religious sentiments of Hindus or not?” The statement given that “breaking it off will hurt their religious sentiments” is true.

2nd part puts logic to establish the connection with 1st part using the statement that “Rama was not having an engineering degree, and hence, he cannot construct a monument”. If this statement is true and universally acceptable, then it is proved that

Rama was not having an engineering degree ⇒ he cannot construct the monument ⇒ What Hindus believe is false ⇒ So breaking the monument off will not hurt the sentiments of Hindus.

We can see that what statement of politician has the connotation that only engineers can construct any monument. Or in other words “any non-engineer cannot construct any monument” which is verifiable.

Hence, politician’s logic fails to establish its veracity, hence, belief of the Hindus that monument was made by Lord Rama is not dis-approved, and hence, the conclusion questionable.

### **□ 2. Correlating the Wrong Ends**

This occurs when on the basis of a certain result, it is tried to establish a conclusion without examining the proper credentials.

### **□ Example 3**

During a recent survey done by a newspaper, it has been found that 65% of the people who responded in the survey have voted as good governance as their most important expectation from the government. So, a party that uses good governance as its main issue in the coming election will win the election and form the government.

### **Solution**

Let us find out flaws in the above logic:

1. Survey results are based on the “people who responded” and does not consider the whole population. Hence, any conclusion derived out of this sample of the respondents may not depict the correct expectation of the whole population.
2. People who responded to the survey results may not vote in the election, and hence, any conclusion about “who will win the elections” is not definitely true.

### **□ 3. Generalization of the Situations**

Generalization is inferring a “trend” on the basis of some particular event.

**□ Example 4**

It has been found that if any company goes for sales promotion route, for example giving free samples, or giving at least 20% discount on the MRP, of establishing a shampoo brand, the company is bound to be the market leader in 5 years. Company XYZ, which produces computer motherboard has used the same sales promotion route. Hence, company XYZ is going to be the market leader in coming 5 years.

**Solution**

It is quite understandable that what is true for shampoo market may not be true for computer motherboard market because of (i) different target group, (ii) different expectations of the target group regarding the product features, (iii) involvement of the customers in buying the product. So we cannot have a ‘generalized’ method of being the market leader. The product category plays its own role in deciding the method to be used for establishing a brand and being a market leader.

So the conclusion suffers from the problem of “Generalization”.

## ➤ PRACTICE EXERCISE

**Direction for questions 1 to 4:** Analyze the following statements and give an appropriate answer for the following questions. Questions are independent to each other.

Q1. “If the forest continues to disappear at its present pace, the Royal Bengal tiger will approach extinction,” said the biologist. “So all that is needed to save the tiger is to stop deforestation,” said the politician.

Which one of the following statements is consistent with the biologist’s claim but not with the politician’s claim?

- (a) Deforestation continues and the tiger becomes extinct.
- (b) Deforestation is stopped and the tiger becomes extinct.
- (c) Reforestation begins and the tiger survives.
- (d) Deforestation is slowed and the tiger approaches extinction.

Q2. There is little point in looking to artists for insights into political issues. Most of them hold political views that are less insightful than those of any reasonably well-educated person who is not an artist. Indeed, when taken as a whole, the statements made by artists, including those considered to be great indicate that artistic talent and political insight are rarely found together.

Which one of the following can be inferred from the passage?

- (a) There are no artists who have insights in political issues.
- (b) Some artists are no less politically insightful than some reasonably well-educated person who are not artists.
- (c) Every reasonably well-educated person who is not an artist has more insight into political issues than any artist.
- (d) Politicians rarely have any artistic talent.

Q3. All intelligent people are nearsighted. I am very nearsighted. So I must be a genius.

Which one of the following exhibits both of the logical flaws exhibited in the argument above?

- (a) Iacocca is extremely happy, so he must be extremely tall because all tall people are happy.
- (b) All chickens have beaks. This bird has a beak. So this bird must be a chicken.
- (c) All geniuses are very nearsighted. I must be very near sighted since I am a genius.
- (d) I must be stupid because all intelligent people are nearsighted and I have perfect eyesight.

Q4. The district health officer boasts that the average ambulance turnaround time, the time from summons to delivery of the patient, has been reduced this year for top-priority emergencies. This is serious misrepresentation. This “reduction” was produced simply by redefining “top priority”. Such emergencies used to include gunshot

wounds and electrocutions, the most time-consuming cases. Now they are limited strictly to heart attacks and strokes.

Which one of the following would strengthen the author’s conclusion that it was the redefinition of “top priority” that produced the reduction in turnaround time?

- (a) The number of heart attacks and strokes decline this year.
- (b) The health officer redefined the district’s medical priorities this year.
- (c) One half of all last year’s top-priority emergencies were gunshot wounds and electrocution cases.
- (d) Other cities include gunshot wound cases in their category of top-priority emergencies.

**Direction for questions 5 and 6:** Read the passage given below and solve the questions based on it.

Hindi ought to be the official language of India. There is no reason for the government to spend money printing documents in different languages, just to cater to people who cannot read/write Hindi. The government has better ways to spend tax payers’ money. People across India should read/write Hindi or learn it at the earliest.

Q5. Which of the following, if true, would weaken the speaker’s argument the most?

- (a) The government currently translates official documents into more than eighteen languages.
- (b) Hindi is the most difficult language in the world to speak.
- (c) Most people who travel across India learn Hindi within five years.
- (d) People who are multilingual usually pay maximum taxes.

Q6. United Nations members contribute funds, proportionate to their population, for facilitating smooth functioning of the UN. By 2010, India, being the most populous nation on the planet, would contribute the maximum amount to the UN. Therefore, official language of United Nations should be changed to Hindi.

Which of the following is true?

- (a) The point above contradicts the speaker’s argument.
- (b) The point above extends the speaker’s argument.
- (c) The point above is similar to speaker’s argument.
- (d) The point above concludes speaker’s argument.

**Direction for questions 7 and 8:** Read the passage given below and solve the questions based on it.

The Bistupur-Sakchi corner needs a speed-breaker. Loyola school children cross this intersection, on their way to the school, and many a times do not check out for traffic. I get to read regular reports of cars and other vehicles hitting children. I know that speed-breakers are irritating for drivers, and I know that children cannot be protected from every danger, but this is one of the worst intersections in town.

## 2.26 ✦✦ Verbal Reasoning

There needs to be a speed-breaker so that vehicles have to slow down and the children be made safer.

Q 7. Which of the following arguments is used in the above passage?

- (a) Analogy—comparing the intersection to something dangerous.
  - (b) Emotive—referring to the safety of children to get people interested.
  - (c) Statistical analysis—noting the number of children hit by vehicles.
  - (d) Personalization—telling the story of one child's near accident at the intersection.

Q 8. According to a recent research conducted by the district road planning department, ten per cent students come with parents in cars, twenty per cent students use auto-rickshaws, twenty per cent students use taxis, forty per cent students use the school buses and ten per cent students live in the hostel inside the school.

Which of the following is true about the above paragraph?

- (a) It extends speaker's argument using analogy.
  - (b) It extends the speaker's argument using Statistical Data.
  - (c) It is similar to speaker's argument.
  - (d) It contradicts the speaker's argument using Statistical Data.

**Direction for questions 9 and 10:** *Read the passage given below and solve the questions based on it.*

History, if viewed as a repository not merely of anecdotes or chronology, could produce a decisive transformation in the image of science by which we are now possessed. That image has previously been drawn, even by scientists themselves, mainly from the study of finished scientific achievements as these are recorded in the classics and, more recently, in the textbooks from which each new scientific generation learns to practice its trade.

Q 9. Which of the following best summarizes the above paragraph?

- (a) Scientific achievements are recorded in classics and text books.
  - (b) History of science can be inferred from finished scientific achievement.
  - (c) Different ways of looking at History can produce altogether different knowledge.
  - (d) Text books may be biased.

**Q 10.** Which of the following statements is the author most likely to agree with?

- (a) History of science presents a scientific way of looking at scientific developments and thus contributes to progress in science.
  - (b) History of science should contain only the chronology of the scientific achievements.
  - (c) More number of scientific theories results in more number of publications, which benefits publishers

- (d) History of science can present multiple interpretations to people regarding the process of scientific developments.

**Direction for questions 11 and 12:** *Read the passage given below and solve the questions based on it.*

Silver is especially and repetitively savage about what he sees as the extravagant claims made for particle Physics, arguing that once the proton, neutron, and electron were found and their properties experimentally confirmed, the very expensive searches for ever more exotic particles, such as the Higgs Boson, were increasingly harder to justify other than by their importance to particle Physicists. Most of the particles resemble ecstatic happiness: They are very short-lived and have nothing to do with everyday life. His repeated assault goes to the level of sarcasm: "Finding the Higgs Boson will be a magnificent technical and theoretical triumph. Like a great Bobby Fisher game". Of course, this is a tad unfair, even if some of the claims of its practitioners invite such assaults on their field.

Q 11. Which of the following, if true, will weaken the argument described in the passage?

- (a) All streams of new science need to undergo through a period of uncertainty and we should not criticize research in particle Physics alone.
  - (b) Necessity is the mother of every invention.
  - (c) Knowledge has preceded application in all spheres of science.
  - (d) Funding agency supporting research on Higgs Boson do not mind wasting their money.

Q 12. Identify the statement(s) that is(are) logically consistent with the content of the paragraph:

- I. Silver is an ardent critic of Higgs Boson theory.
  - II. Everyday life has nothing to do with experimental confirmation of the properties of proton, neutron and electron.
  - III. Identifying more information about Higgs Boson is a significant contribution to particle Physics.
  - IV. Research on exotic particles in particle Physics is an expensive proposition.
    - (a) Only I
    - (b) Only II
    - (c) Only II and IV
    - (d) Only I and IV

Q 13. Social roles may either conflict or cooperate within any given person, depending upon the circumstances. They conflict when the behaviour patterns demanded by one role cannot be performed while performing the second role. Thus, one cannot easily be a saintly rake or a feminine brut, but given an understanding husband, a woman can be both a loving wife and a loving mother with no conflict between the roles.

Which of the following methods is used by the author to make his or her point?

- (a) Applying an individual attribute to a whole.
  - (b) Implying contradictions without actually citing them

- (c) Relying on common-sense notions of social roles.
- (d) Presenting specific examples to clarify a generality.

**Direction for questions 14 to 16:** *Solve these questions independently.*

Q 14. Many environmentalists rank global warming as the most serious current threat to the world's environment, citing evidence that over the past 30 years, the global temperature has risen an average of 2 degrees. However, the average global temperature this year is equal to the average global temperature of last year. Global warming, therefore, is not as serious a problem as these environmentalists claim.

- The argument is most vulnerable to the criticism that it
- (a) Argues that because a threat is present, that threat must be more serious than any other possible threat.
  - (b) Concludes that because there is lack of evidence for a problem, that problem does not exist.
  - (c) Attempts to refute a conclusion about a general trend by appealing to a single counterexample, even though such a counterexample may be consistent with the general trend.
  - (d) Relies on the ambiguous use of a key term.

Q 15. Any person who uses words ambiguously cannot become a journalist, since journalistic reporting cannot invite artistic interpretation.

- Which of the following, if assumed, would allow the conclusion above to be properly drawn?
- (a) No person who invites artistic interpretation can use words ambiguously.
  - (b) Any person who uses words ambiguously will invite artistic interpretation in their reporting.
  - (c) Any journalist who invites artistic interpretation will sometimes use words ambiguously.
  - (d) Either a journalist uses words ambiguously or that journalist invites artistic interpretation.

Q 16. Some people interpret the phrase "survival of the fittest" as "survival of the strongest." However, inasmuch as "strong" is interpreted as "physical size and prowess", this is incorrect. Although strength and size provide a survival advantage within a species in such tasks as breeding, fighting for food, and running from predators, a species will survive only if its overall resource requirement for maintaining its strength does not outweigh the resources available, as is often the case during a famine or other ecological disaster. Based on the passage above, which of the following statements must be true?

- (a) If a species' resource requirement for maintaining its strength outweighs the resources available, that species will not survive.
- (b) Strength does not provide a survival advantage for hunting food.
- (c) The phrase "survival of the fittest" should not be used by the scientific community.

- (d) The species with the least strength is the most likely to survive in a famine.

**Direction for Question 17 and 25:** *Read the following passage and answer the questions:*

Though persons of any age can have cancer, recent research has shown that eating fiber rich diet may reduce risk of some types of cancer. Modern lifestyle has resulted in increased consumption of junk food that is low in fiber. We should fortify junk food with fiber.

Q 17. "NO JUNK FOOD NO CANCER"!

- (a) The statement cannot be logically inferred from the passage.
- (b) The statement is a logical inference form the passage above.
- (c) The passage has contradicting statements.
- (d) None of the above

Q 18. I: Cancer is a modern disease.

- II: Modern lifestyle and eating habits may have increased risk of cancer.
- (a) Both I and II can be logically inferred from the above passage.
  - (b) Neither I nor II can be logically inferred from the above passage.
  - (c) Only I can be logically inferred from the above passage.
  - (d) Only II can be logically inferred from the above passage.

Q 19. The average after-tax income for a household was 2.5% higher in 1983 than in 1982. At the same time, average after tax income declined per households at the lower and middle income levels.

Which of the following can be most reasonably inferred from the information above?

- (a) There were more households overall in 1983 than in 1982.
- (b) There were fewer households at the upper income level in 1983 than in 1982.
- (c) Total after tax income for all households at the lower and the middle income levels was higher in 1983 than in 1982.
- (d) Average after tax income for the households at the upper income level rose by more than 2.5% between 1982 and 1983.

Q 20. Brushing your teeth regularly, no matter which toothpaste you use, will reduce your chances of tooth decay. Scientists have concluded that, when you brush, you reduce tooth decay by removing the film of plaque that forms on teeth and gums. So, you can forget about fluorides: brush your teeth carefully and say goodbye to cavities.

Which one of the following is a criticism of the reasoning in the argument?

- (a) Brushing with fluoride toothpaste has been shown to reduce tooth decay.

## 2.28 ✦ Verbal Reasoning

- (b) The fact that brushing will reduce tooth decay does not show that fluorides are of no value.  
(c) Few people adequately remove plaque by brushing.  
(d) People have plaque on their teeth most of the time.
- Q 21. Xenophobia against Asians in USA and UK has increased since 9/11, an elderly Sikh was murdered in USA, mistaken for an Arab. Intelligence Services tap twice as many as phones of Asians as they do of Nordics. Visa rules for Asians have been tightened unreasonably. Now Germany states they will not allow Iranian or Middle East students to study nuclear Physics at their universities. Are these steps playing into the hands of terrorist recruiters?
- What would you infer from this passage.
- (a) Al Qaida recruiters are delighted with these developments.  
(b) It is time for Asian countries to impose retaliatory tit-for-tat restrictions on UK and USA.  
(c) Increasing Xenophobia is a dangerous trend – it can cause problems, not solve them.  
(d) There is no sense showing anger against decent law abiding Asians. It would be better to utilize energy to catch terrorists.
- Q 22. Opinion based, not fact based, reporting, seems to be the fad for most TV Channels these days. In the Aarushi murder case, the channels have already named at least three suspects as guilty, whereas the CBI is still groping in the dark. Each channel has made its own calculations on future confidence vote of the Govt. and is presenting it as fact. Political analysts gleefully state their own speculations as gospel truths. Truth is indeed a casualty these days.
- Which of these sentences would best conclude the paragraph.
- (a) The press – print and electronic – would be well advised to exercise restraint and may be have self regulatory bodies to oversee broadcasts for veracity.  
(b) It would not be a bad idea for the Government to impose some discipline in the press, through legislation. It has been done in other countries.  
(c) Freedom of press does not mean freedom to distort facts, present opinion as fact.  
(d) People must give a thumbs down to blatantly opinionated channels via poor viewership.
- Q 23. With crude price touching 146 dollars/barrel it is time to think small cars and petrol savers. It is time to think electric autos and Hydrogen cell vehicles. It is time to think CNG vehicles and hybrid technologies. It is time to think ethanol locos and natural gas furnaces. It is even probable that in our anxiety to save petrol, we will actually lower pollution levels since all the alternative technologies are more environment friendly than current petrol guzzlers.
- Which of the following would strengthen the author's argument:
- (a) Thank God for alternative technologies. We would be back in Stone Age without them.  
(b) It is time to seriously look for more petroleum resources by drilling more, perhaps in the seas and the poles, where huge reserves of the hydrocarbon apparently exist.  
(c) Human ingenuity has found ways out of every crisis in History. Mankind will find a solution to this problem too.  
(d) None of the above
- Q 24. Religion has claimed more lives through History than all famines, earthquakes, wars and pestilences put together. Hundreds of thousands were martyred in the centuries long Christian – Muslim wars of the middle ages. The popes and the Church have, over the centuries, burnt countless so called heretics at the stake. Jews have kicked out huge numbers of Palestinians from their homes, while themselves losing 5 million of their own in the holocaust. Even today, Al Qaida and large numbers of Islamic militant organizations have declared Jihad against all other Kafirs. Hindu extremists talk of imposing their own brand of Hinduism in India at the cost of secularism. It seems Gods are out there fighting.
- Select a suitable conclusion to the paragraph:
- (a) Religion is a curse on humanity and we would be better off as agnostics – believe in God but not in religion.  
(b) Religion should be confined to the boundaries of one's house – not bandied about in public.  
(c) Every religion is out to prove – even with violence – that our God is greater than your God.  
(d) There is a disconnect between the ideas and the practice of religions. The ideals preach peace but its followers use violence.
- Q 25. Teenagers are best reached via their favourite pastimes and hobbies – internet, music, movies, peer groups, sports, etc. It is through these very formats they can be told of things that would be good for them in the long run – decency, patriotism, honesty, hard work, fair play, community feeling, harmony and tolerance. Being natural rebels, no teenager likes to be lectured. These values must be communicated to them in palatable ways of their own choice via their own favorite communication modes. Only then will the lessons stick.
- Which of these can be derived from the passage:
- (a) Everything cannot be taught in schools and colleges.  
(b) Subtlety and sensitivity would help in reaching out to teenagers.  
(c) Being young, teenagers tend to have short attention spans. Long term issues must be communicated in special ways, which they are attracted to.  
(d) (a) and (b) both.

# ANSWERS



## ◀ PRACTICE EXERCISE

Q. No.	Answer						
1	(a)	2	(c)	3	(b)	4	(c)
5	(d)	6	(b)	7	(b)	8	(d)
9	(c)	10	(d)	11	(c)	12	(d)
13	(d)	14	(c)	15	(b)	16	(a)
17	(b)	18	(c)	19	(d)	20	(b)
21	(c)	22	(a)	23	(d)	24	(c)
25	(d)						

## HINTS AND EXPLANATIONS

## ◀ PRACTICE EXERCISE



1. (a) First statement matches that of the biologist but goes against the politician's.
2. (c) Statement says that artists are artists do not have political insights; this is reflected in option (c).

3. (b) Argument links two variables and makes an inappropriate analogy, which again happens in option (b).
4. (c) If in the past top priority were gunshot wounds, eliminating them would strengthen the conclusion.

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3

# Fact, Inference, Judgement

# LEARNING Objectives

This chapter should enable you to:

1. Identify the difference between a Fact, an Inference and a Judgement
  2. How to handle questions based on them

**Facts:** deal with pieces of information that one has heard, seen or read, and which are open to discovery or verification. Verification is the key word

**Inferences:** are conclusions drawn about the unknown, on the basis of the known.

**Judgements:** are opinions that imply approval or disapproval of persons, objects, situations, and occurrences in the past, the present or the future.

While solving a question, in my opinion, students are able to decide upon Facts very easily. For example: 1.85 lakh students took CAT 2011.

They face difficulty in deciding upon if the given statement is a Judgment or Inference.

Judgment is somewhat “personal”. It is what a person believes to be true, and do not have any proof that if it will be accepted by everybody. So it is like a “personal opinion”. For example, a teacher looks at the progress report of his student and says that – You will be a rich man in future. This statement is a personal opinion of the teacher, and everybody around may not agree with the statement. Besides, this statement cannot be verified to be true at the same time.

Difference between Judgment and Inference:

Judgment and Inference differ on the ground of “logically verifiability”. Inference can be logically verified to be right or wrong whereas Judgment is a personal opinion and does not have scope of being verified.

Consider the following example from CAT 2006:

- According to all Statistical indications, the Sarva Shiksha Abhiyan has managed to keep pace with its ambitious goals.
  - The Mid-day Meal Scheme has been a significant incentive for the poor to send their little ones to school, thus establishing the vital link between healthy bodies and healthy minds.
  - Only about 13 million children in the age group of 6 to 14 years are out of school.
  - The goal of universalisation of elementary education has to be a pre-requisite for the evolution and development of our country.
    - IIFJ
    - JIIJ
    - IJJF
    - IJFI
    - JIFI

**□ Consider Statement 1**

According to all Statistical indications, the Sarva Shiksha Abhiyan has managed to keep pace with its ambitious goals.

**□ Explanation:**

This statement talks about some goals, and how Sarva Shiksha Abhiyan has managed to achieve those. To substantiate it, statement resorts to “all statistical indications”. To analyze this statement, we would start with the Double Y Junction test:

Can we verify this for being true or false? – Yes, definitely.

Since we can verify this statement to be true or false, hence, this statement is Inference.

**□ Consider Statement 2**

The Mid-day Meal Scheme has been a significant incentive for the poor to send their little ones to school, thus establishing the vital link between healthy bodies and healthy minds.

**□ Explanation:**

Can we verify “thus establishing the vital link between healthy bodies and healthy minds” this?

We are not required to verify the link between healthy bodies and healthy mind. Rather we need to verify the linkage between Mid-day Meal Scheme and poor sending their little ones to school?

We cannot reliably verify this statement, hence, this statement is Judgment.

**□ Consider Statement 3**

Only about 13 million children in the age group of 6 to 14 years are out of school.

**□ Explanation:**

This is not an opinion, neither personal nor collective. This is simply a piece of data – hence, a fact.

**□ Consider Statement 4**

The goal of universalisation of elementary education has to be a pre-requisite for the evolution and development of our country.

**□ Explanation:**

This statement is again a personal opinion – talking about future. There is no reliable way through which we can check the veracity of this future event. Hence, this statement is a Judgment.

Now we summarize the whole discussion:

Statement 1    Inference

Statement 2    Judgment

Statement 3    Fact

Statement 4    Judgment

Hence, option (c) is the answer.

## ➤ PRACTICE EXERCISE

**Direction:** From the alternatives, choose the one which correctly classifies the four sentences as a

F: Fact: If it relates to a known matter of direct observation, or an existing reality or something known to be true,

J: Judgment: If it is an opinion or estimate or anticipation of common sense or intention,

I: Inference: If it is a logical conclusion or deduction about something, based on the knowledge of facts.

Q 1. A. If India has embarked on the liberalization route, she cannot afford to go back.

B. Under these circumstance, being an active supporter of WTO policies will be a good idea.

C. The WTO is a truly global organization aiming at freer trade.

D. Many member countries have already drafted plans to simplify tariff structures.

(a) FJFI (b) IFJF

(c) IJFF (d) IFIF

Q 2. A. The Minister definitely took the wrong step.

B. Under the circumstances, he had many other alternatives.

C. The Prime Minister is embarrassed due to the Minister's decision.

D. If he has put the government in jeopardy, the Minister must resign.

(a) JFFI (b) IFJI

(c) FFJI (d) IFU

Q 3. A. The ideal solution will be to advertise aggressively.

B. One brand is already popular amongst the youth.

C. Reducing prices will mean trouble as our revenues are already dwindling.

D. The correct solution will be to consolidate by aggressive marketing.

(a) JFIJ (b) FJJI

(c) IJFF (d) JJIF

Q 4. A. If democracy is to survive, the people must develop a sense of consumerism.

B. Consumerism has helped improve the quality of goods in certain countries.

C. The protected environment in our country is helping local manufacturers.

D. The quality of goods suffers if the manufacturers take undue advantage of this.

(a) IJFJ (b) JFJI

(c) IJFJ (d) IFJJ

Q 5. A. Unless the banks agree to a deferment of the interest, we cannot show profits this year.

B. This would not have happened had we adopted a stricter credit scheme.

C. The revenues so far cover only the cost and salaries.

D. Let us learn a lesson: we cannot make profits without complete control over credit.

- |          |          |
|----------|----------|
| (a) IIJF | (b) IJFI |
| (c) FJIF | (d) FJFI |

- Q 6. A. Qualities cannot be injected into one's personality.  
 B. They are completely dependent on the genetic configuration that one inherits.  
 C. Hence, changing our inherent traits is impossible as the genes are unalterable.  
 D. The least one can do is to try and subdue the "bad qualities".

- |          |          |
|----------|----------|
| (a) FIJI | (b) JFFI |
| (c) JFIJ | (d) JIFI |

- Q 7. A. Everything is purposeless.  
 B. Nothing before and after the existence of the universe is known with certainty.  
 C. Man is a part of the purposeless universe, hence, man is also purposeless.  
 D. There is only one way of adding purpose to this universe: Union with Him.

- |          |          |
|----------|----------|
| (a) JFIJ | (b) FJJI |
| (c) JFFI | (d) IJFJ |

- Q 8. A. Everyday social life is impossible without interpersonal relationships.  
 B. The root of many misunderstandings has been cited in poor relations among individuals.  
 C. Assuming the above to be the true, social life will be much better if people understand the importance of good interpersonal relations.  
 D. A study reveals that interpersonal relations and hence, life in general can be improved with a little on the art of individuals.

- |          |          |
|----------|----------|
| (a) FJIJ | (b) JFIF |
| (c) FIFJ | (d) IFFJ |

- Q 9. A. The prices of electronic goods are falling.  
 B. Since we have substantial reductions in import duties, this is obvious.  
 C. The trend is bound to continue in the near future.  
 D. But the turnover of the electronic industry is still rising, because consumers are increasing a rapid rate.

- |          |          |
|----------|----------|
| (a) IFJF | (b) FJII |
| (c) FIJF | (d) JIFF |

- Q 10. A. In the past, it appears, wealth distribution, and not wealth creation has dominated economic policy.  
 B. Clearly, the government has not bothered to eradicate poverty.  
 C. Today's liberalization is far from the hitherto Nehruvian socialism.  
 D. Results are evident in the form of a boom in the manufacturing sector output and turnover of all industries.

- |          |          |
|----------|----------|
| (a) FJIF | (b) FIFJ |
| (c) IJIF | (d) JIFF |

- Q 11. A. Even for the world's largest advertiser, with an estimated \$9 bn in spends in 2009, acquiring some new lessons is critical.  
B. According to Prichard, the world is heading towards Marketing 3.0 and that means marketing as a function needs to overhaul itself.  
C. We are not there yet, but we are moving towards an inflection point.  
D. We are shifting to purpose inspired brand building, a shift from marketing to serving Pritchard states.  
(a) FJFJ                   (b) JFJF  
(c) IFJF                   (d) JIJF

Q 12. A. Leading B-schools are looking to overhaul the MBA syllabus.  
B. Nitin Nohria, the newly-appointed dean of Harvard Business School (HBS), is said to believe that the way management is taught in B-schools contributed to the recent financial crisis.  
C. Srikanth Datar, another HBS professor, and two of his colleagues have authored a book, *Rethinking the MBA: Business education at a crossroads*, that echoes this theme.  
D. It also laments the fact that MBA students are taking less and less interest in their classes and spending more time on networking and attending recruiting events.  
(a) JFFI                   (b) IFFI  
(c) IFFJ                   (d) IJJI

Q 13. A. Inhaled anesthetics widely used for surgery—particularly the anesthetic desflurane—are a major contributor to global warming.  
B. Dr Susan M. Ryan of University of California and computer scientist Claus J. Nielsen of University of Oslo said that sevoflurane, isoflurane, and desflurane are recognized greenhouse gases.  
C. Using desflurane for one hour is equivalent to 235 to 470 miles of driving.

Q 14. A. The anesthetics usually are vented out of the building as medical waste gases and remain in the atmosphere for a long time.  
E. Ryan and Nielsen suggest some simple, knowledge-based decisions that anesthesiologists can follow to minimize their environmental impact.  
(a) IFJJF                   (b) FFFIF  
(c) IFFFI                   (d) IFIGF

Q 15. A. The hope that battery-operated cars can save the earth's climate by reducing carbon emission is just a fantasy.  
B. The technology used for electric car batteries is so backward that they will die within two years.  
C. The so-called energy efficient cars will be extremely expensive and cover far less distance on one battery charge than the manufacturers claim.  
D. The research carried out by the Institution of Engineering and Technology suggests that claims about the performance of electric vehicles are pure fantasy.  
E. The researchers found the batteries are likely to burn out within two years, requiring expensive replacements.  
(a) JJFFF                   (b) JJJIF  
(c) JJJFF                   (d) JIFJI

Q 16. A. India has a huge stake in Afghanistan.  
B. At least some of this is meant to ensure it remains a sovereign state and extremist Taliban influence and Pakistani meddling are minimized.  
C. In the last decade India has spent at least a couple of billion dollars to rebuild ties with Afghanistan.  
D. India has built roads, transmission grids, schools, hospitals, the parliament.  
(a) IFIF                   (b) FFFF  
(c) JIJF                   (d) JFIF

## ANSWERS

## PRACTICE EXERCISE

Q. No.	Answer						
1	(c)	2	(a)	3	(a)	4	(a)
5	(b)	6	(c)	7	(a)	8	(b)
9	(c)	10	(c)	11	(b)	12	(c)
13	(b)	14	(b)	15	(c)		

# 4

# Paragraph Completion

## LEARNING Objectives

This chapter should enable you to understand:

1. Key elements of Paragraph Completion passages
2. Significance of the theme and tone of the passage
3. How to figure out the logical flow of the passage
4. How to master the art of eliminating answer choices

### ➤ PARA COMPLETION

CAT asks Paragraph Completion questions on a regular basis.

In these questions, a short paragraph is given with a sentence from it removed. Generally, the last sentence of the paragraph is left as a blank, though it is not necessary. There may be some questions in which a statement from middle of the passage is removed. It is followed by four possible options and you will be required to choose that which one can fit into the paragraph best.

### □ Solving the Para Completion Questions

Quickly but carefully read the passage at least twice and figure out the scope, theme, tone and logical flow of the passage; and you are ready to eliminate the choices to figure out the best choice at hand!

Let's take a look at these individual elements in detail, and you shall find this section a cake walk for sure. Para Completion questions can help you to boost your sectional and overall test score.

#### □ (a) Scope of the Passage

Try to figure out what the paragraph is all about. What is the topic or subject area of the passage, and what are its

limits. So, anything that strays out of the boundaries cannot be a part of the passage. Any answer choice that talks about something outside the scope of the passage is a pariah, and hence, should be eliminated in the first go. Read the following lines carefully, and decide what the scope of the passage is?

*In my own constituency, in April, which is a hot month, we had hailstorms of the size of a tennis ball, which destroyed the entire wheat crop in the Tarai. We had snow in places where snow had never been. We had snow late, we had flowering late and we lost large number of crops due to flooding. This is going to increase year after year.*

Here the scope of the passage would be the changing weather conditions within a particular area, however it cannot be generalized.

#### □ (b) Theme or Gist of the Passage

You have to think like the author of the passage. If you are able to put yourself into the shoes of the author, it should not be difficult to figure out what does not fit into the passage. Focus on the key words and try to figure out the essence of the passage. Try to rephrase the passage in your mind in simpler words, and ask yourself what the author is trying to

convey. Read the following lines and try to guess the theme of the passage.

*We must forever conduct our struggle on the high plane of dignity and discipline. We must not allow our creative protest to degenerate into physical violence. Again and again we must rise to the majestic heights of meeting physical force with soul force.*

Here, the last line makes the theme amply clear; the author wants the people to uphold their sense of righteousness and integrity even in the midst of bitter struggle.

#### □ (c) Tone of the Passage

Tone represents the predominant emotion or mood of the author towards the topic. Tone can be guessed by paying attention to the adjectives used in the passage. Passages are normally the author's reaction to some issue. So, gauging the tone can help you to narrow down to the right choice. If the passage is eulogistic in tone, you do not expect the answer choice to be sarcastic or sardonic. Can you identify the tone of the passage?

*AMERICAN students are enrolling in college in record numbers, but they're also dropping out in droves. Barely half of those who start four-year colleges, and only a third of community college students, graduate. That's one of the worst records among developed nations, and it's a substantial drain on the economy. The American Institutes for Research estimates the cost of those dropouts, measured in lost earnings and taxes, at \$4.5 billion. Incalculable are the lost opportunities for social mobility and the stillborn professional careers.*

Clearly, the passage bears a negative tone. The author uses expressions like 'dropping in droves', 'drain on the economy' and finally 'incalculable are the lost opportunities', which clearly shows that the author displays a strong sense of disapproval for the flip side of the American education system.

#### □ (d) Logical Flow of the Passage

You should read the passages like a detective, keeping an eye on the chain of event, and their logical sequence. If you mess up, you may make a blunder. Therefore, it is important to focus on key ideas and transition phrases used in the passage. One must be able to identify the thread of thought running through the paragraph. The flow of ideas in the passage should be maintained. Never pick an option

which breaks or suddenly changes the flow to some other direction.

Remember, the last thought or idea in the paragraph has to be taken forward. Therefore, continuity is an important thing to be kept in mind in the process of arriving at the right answer.

#### □ (e) Master the Art of Eliminating the Choices

It is important to master the art of eliminating the choices, especially in the verbal section. Any option that is out of scope of the argument or contradictory to the theme can be straightaway eliminated. Never pick an option which talks about things that are not mentioned in the paragraph. The correct option will be the one which relates itself to the core information mentioned in the paragraph. Beware of the choices that rephrase and repeat the topic. And avoid extreme choices.

*Mma Ramotswe had a detective agency in Africa, at the foot of Kgale Hill. These were its assets: a tiny white van, two desks, two chairs, a telephone, and an old typewriter. Then there was a teapot, in which Mma Ramotswe—the only lady private detective in Botswana—brewed redbush tea. And three mugs—one for herself, one for her secretary, and one for the client. What else does a detective agency really need? Detective agencies rely on human intuition and intelligence, both of which Mma Ramotswe had in abundance.*

- (1) But there was also the view, which again would appear on no inventory.
- (2) No inventory would ever include those, of course.
- (3) She had an intelligent secretary too.
- (4) She was a good detective and a good woman.
- (5) What she lacked in possessions was more than made up by a natural shrewdness.

#### Solution

Needless to say, the passage revolves around Mma Ramotswe and the minimal assets of her little detective agency. The first choice is off the mark as it takes the topic away from the main character, Mma Ramotswe or her possessions. The third choice fails to sum up the theme of the passage, and digresses from it. The fourth one also fails to connect the possessions of her agency and her unique abilities. The second last sentence asks a question, and the last sentence tries to justify the case in a positive light, so the last choice does not fit. It's only the first choice, which suitably wraps up the discussion raised by the question in the second last line.

## ➤ PRACTICE EXERCISE

Q 1. Perhaps the simplest and easiest to understand is the argument of the First Cause. I may say that when I was a young man and was debating these questions very seriously in my mind, I for a long time accepted the argument of the First Cause, until one day, at the age of eighteen, I read John Stuart Mill's Autobiography, and I there found this sentence: "My father taught me that the question 'Who made me?' cannot be answered, since it immediately suggests the further question 'Who made god?'" \_\_\_\_\_

If everything must have a cause, then God must have a cause. If there can be anything without a cause, it may just as well be the world as God, so that there cannot be any validity in that argument.

- (a) There is no reason why the world could have come into being without a cause.
- (b) That argument, I suppose, does not carry very much weight nowadays, because, in the first place, cause is not quite what it used to be.
- (c) That very simple sentence showed me, as I still think, the fallacy in the argument of the First Cause.
- (d) It brings us to the central truth that God is the ultimate source and essence of everything.

Q 2. Then there is a very common argument from natural law. That was a favorite argument all through the eighteenth century, especially under the influence of Sir Isaac Newton and his cosmogony. People observed the planets going around the sun according to the law of gravitation, and they thought that God had given a behest to these planets to move in that particular fashion, and that was why they did so. \_\_\_\_\_

- (a) Nowadays we explain the law of gravitation in a somewhat complicated fashion that Einstein has introduced.
- (b) Modern science has failed to explain this incongruity.
- (c) You no longer have the sort of natural law that you had in the Newtonian system.
- (d) That was, of course, a convenient and simple explanation that saved them the trouble of looking any further for explanations of the law of gravitation.

Q 3. The fountains mingle with the river,  
And the rivers with the ocean;  
The winds of heaven mix forever,  
With a sweet emotion;  
\_\_\_\_\_;

- (a) This is the power of love
- (b) Nothing in the world is single
- (c) This is the seed of creation
- (d) What's life without love

Q 4. All things by a law divine  
In one another's being mingle:  
\_\_\_\_\_

- (a) Why not I with thine?
- (b) Let's make a jingle
- (c) It takes two to tango
- (d) God is not away from us

Q 5. Conventional education makes independent thinking extremely difficult. \_\_\_\_\_ To be different from the group or to resist environment is not easy and is often risky as long as we worship success

- (a) creativity is crushed by orthodoxy.
- (b) innovative thinking is the key.
- (c) this has ruined many careers.
- (d) Conformity leads to mediocrity.

Q 6. Though there is a higher and wider significance to life, of what value is our education if we never discover it? We may be highly educated, but if we are without deep integration of thought and feeling, our lives are incomplete, contradictory and torn with many fears; \_\_\_\_\_.

- (a) the 'well-educated' are ignoramus louts
- (b) and as long as education does not cultivate an integrated outlook on life, it has very little significance
- (c) and integrity is the key to spiritual evolution
- (d) It has been rightly remarked, "I never let school interfere in my education"

Q 7. The function of education is to create human beings who are integrated and therefore intelligent. \_\_\_\_\_ We may take degrees and be mechanically efficient without being intelligent. Intelligence is not mere information; it is not derived from books, nor does it consist of clever self-defensive responses and aggressive assertions.

- (a) Education should help us to discover lasting values so that we do not merely cling to formulas or repeat slogans
- (b) Education should not encourage the individual to conform to society or to be negatively harmonious with it
- (c) One who has not studied may be more intelligent than the learned
- (d) Unfortunately, the present system of education is making us subservient, mechanical and deeply thoughtless

Q 8. Politicians may be corrupt, but have to seek re-election, and to that extent are accountable to voters. But civil servants are virtually unsackable, unaccountable and widely corrupt. You cannot change this overnight. \_\_\_\_\_

- (a) However, you can create jobs for the unemployed.
- (b) So, go easy on making temporary workers permanent.
- (c) But you can halt the growth of unsackable, unaccountable staff.
- (d) So, devise safeguards against false accusations.

- Q 9. The “grand sweep of history” has become a much overused cliché. It incorporated the belief that change stemmed from big ideas that motivated individuals, classes and nations. \_\_\_\_\_.
- The Bolshevik Revolution, whose impact dominated the 20th century, was prompted by disillusionment among the proletariat
  - This finds support in Namier’s view that big ideas are less important than mundane and even base considerations
  - Mass movements, cannot be judged by pronouncements of those who manage to filch them
  - Thus, the French Revolution happened because the idea of liberty, equality and fraternity motivated people to overturn the decrepit absolute monarchy
- Q 10. A country that retains the death penalty needs constantly to fine-tune its clemency jurisprudence as the second best option. The Supreme Court’s latest verdict on death row convicts is a thoughtful exposition of the law in this regard. \_\_\_\_\_.
- Commuting the death sentences of 15 convicts to life sentences has significantly expanded the scope for judicial intervention to save the lives of convicts after the rejection of their mercy petitions.
  - The court has laid down fresh rules to humanise the treatment of those facing the gallows, right up to the moment of their execution and even after that.
  - The breadth of this ruling is not as impressive: it fails to remove all lingering doubts about the rule against undue delay.
  - The court has crafted a new rule that families of convicts ought to be informed in writing as soon as their mercy petitions are rejected.
- Q 11. After successfully eradicating smallpox in 1980, India has now gone three straight years without reporting any new case of poliomyelitis infection (“polio”). This qualifies it to receive the World Health Organisation’s (WHO) certification for being polio-free. Undoubtedly, this is a victory that has been fought every inch of the way by myriad agencies on a number of fronts and against what seemed like insurmountable odds.
- The lessons learnt are precious beyond words and the expectation is that these will be harnessed to fight other infectious diseases that plague the country.
  - There is also the remaining challenge of treating and rehabilitating those who have already been crippled by the disease.
  - Of course polio vaccination is not a cure-all solution for all infectious diseases.
  - In the mid-1990s the vaccination programme that was undertaken involved the government, United Nations bodies, charitable organisations and private donors.
- Q 12. Up to this point, Jordan Belfort is no different from countless eager MBA graduates in India who work in the stock or bond markets for global financial firms. Belfort’s lifestyle, while perhaps more (or less?) excessive than that of India’s super-rich, is still something a lot of us covet. He acquires a harem, a hot blonde wife, a daily dose of recreational drugs, a yacht, a yellow Jaguar and a white Ferrari.
- As a job creator, he transforms hopeless, low-end drug dealers into corporate sharks, and even gives a desperate single mother benefits that the US’ social welfare system overlooks.
  - He lowers himself to unfathomed moral depths even as he soars to new heights of success.
  - Surely many of us will laud Belfort when he says: “At least as a rich man, when I have to face my problems, I can show up in the back of a stretch limousine, wearing a two-thousand-dollar suit and a twenty-thousand-dollar gold watch!”
  - These are charismatic brands that several of India’s merchant princes flaunt and made more familiar to us through thousands of Bollywood fantasies.
- Q 13. The yearning for money as succour drives contemporary capitalism. If every revolution and alternative has failed, why not work to enable the one that actually exists, why not do what your stockbroker tells you, and keep investing to circulate money in the economy? The original *Forbes* magazine exposé that labelled Belfort “The Wolf of Wall Street” likened him to a “twisted Robin Hood” who takes from the rich and gives to himself and his squad of losers.
- It is this observation that makes Scorsese’s *The Wolf of Wall Street* profound, locating and attacking the very appeal of money.
  - Scorsese refuses to dish out false platitudes that “crime does not pay” nor does he echo the sentimentalism of Oliver Stone’s *Wall Street* movies.
  - As a job creator, he transforms hopeless, low-end drug dealers into corporate sharks.
  - Is that not what we expect from the market, what keeps housewives glued to the television, watching CNBC for the latest stock information, and what drives many to start demat accounts?
- Q 14. Like *Company Limited*, Scorsese’s *The Wolf of Wall Street* is an exploration of the contemporary world that few would have expected from these two artistes, given their refined sensibilities. *The Wolf of Wall Street* attacks the lifestyle of the middle-class, the world of advertising and consumerism, the lust for the good life and the protection it offers.
- the lust for good life propels us to struggle and survive in this big bad world.
  - behind the veneer of consumerism is an effort to assert one’s individuality.
  - the elite and the downtrodden are unaffected by this false glamour.

- (d) The visible surface and texture of contemporary life corrupts us all, making us wolves thronging the pack of the alpha male rather than being benign, though gullible, sheep.
- Q 15. It is obvious today that America has defaulted on this promissory note insofar as her citizens of colour are concerned. Instead of honoring this sacred obligation, America has given the Negro people a bad check, a check which has come back marked “insufficient funds.”
- (a) But we refuse to believe that the bank of justice is bankrupt.
  - (b) So we have come to cash this check—a check that will give us upon demand the riches of freedom and the security of justice.
  - (c) This note was a promise that all men, yes, black men as well as white men, would be guaranteed the unalienable rights of life, liberty, and the pursuit of happiness.
  - (d) In a sense we have come to our nation’s capital to cash a check.
- Q 16. I am not unmindful that some of you have come here out of great trials and tribulations. Some of you have come fresh from narrow jail cells. Some of you have come from areas where your quest for freedom left you battered by the storms of persecution and staggered by the winds of police brutality.
- (a) You have been the veterans of creative suffering.
  - (b) We cannot be satisfied as long as a Negro in Mississippi cannot vote and a Negro in New York believes he has nothing for which to vote.
  - (c) No, no, we are not satisfied, and we will not be satisfied until justice rolls down like waters and righteousness like a mighty stream.
  - (d) I say to you today, my friends, so even though we face the difficulties of today and tomorrow, I still have a dream.
- Q 17. Now the trumpet summons us again—not as a call to bear arms, though arms we need—not as a call to battle, though embattled we are—but a call to bear the burden of a long twilight struggle, year in and year out, “rejoicing in hope; patient in tribulation;”
- (a) A struggle against the common enemies of man: tyranny, poverty, disease, and war itself.
  - (b) Celebrating the pluralism of our cosmopolitan culture.
  - (c) A solemnization of the onerous fight against the injustice.
  - (d) For man holds in his mortal hands the power to abolish all forms of human poverty (does not explain the reason).
- Q 18. More fundamentally, the tiff has uncovered a deep rift in the two countries’ perceptions of one another. From the Indian perspective, America remains unwilling to afford it the respect a true partner deserves. And from the American, the Indian response reveals both a brittle anxiety about its own status and a callous disregard for the well-being of the person the American justice system saw as the victim in this story—the maid.
- 
- (a) Rather than partners, the two countries look like strangers
  - (b) America is known for stringent labour laws and its ruthless enforcement
  - (c) The Indo-US relations has therefore been damaged irreversibly
  - (d) If the rift widens, it may impact the peace and stability in South Asia
- Q 19. I believe that the school is primarily a social institution. Education being a social process, the school is simply that form of community life in which all those agencies are concentrated that will be most effective in bringing the child to share in the inherited resources of the race, and to use his own powers for social ends. I believe that education, therefore, is a process of living and not a preparation for future living.
- (a) I believe that the school must represent present life—life as real and vital to the child as that which he carries on in the home, in the neighborhood, or on the play-ground.
  - (b) It must begin with a psychological insight into the child’s capacities, interests, and habits.
  - (c) To prepare him for the future life means to give him command of himself; it means so to train him that he will have the full and ready use of all his capacities.
  - (d) Only true education comes through the stimulation of the child’s powers by the demands of the social situations in which he finds himself.
- Q 20. We say Newton discovered gravitation. Was it sitting anywhere in a corner waiting for him? It was in his own mind; the time came and he found it out. All knowledge that the world has ever received comes from the mind; the infinite library of the universe is in your own mind. The external world is simply the suggestion, the occasion, which sets you to study your own mind, but the object of your study is always your own mind. The falling of an apple gave the suggestion to Newton, and he studied his own mind.
- (a) Our mind is the root of all evil and good.
  - (b) The search for truth begins with the study of one’s own mind.
  - (c) Mind is the element of a person that enables them to be aware of the world and their experiences, to think, and to feel; the faculty of consciousness and thought.
  - (d) He rearranged all the previous links of thought in his mind and discovered a new link among them, which we call the law of gravitation.

# ANSWERS



## ❖ PRACTICE EXERCISE

Q. No.	Answer						
1	(c)	2	(d)	3	(b)	4	(a)
5	(d)	6	(b)	7	(c)	8	(c)
9	(d)	10	(a)	11	(a)	12	(d)
13	(d)	14	(d)	15	(a)	16	(a)
17	(a)	18	(a)	19	(a)	20	(d)

## HINTS AND EXPLANATIONS

## ❖ PRACTICE EXERCISE



1. (c) (a) It is contrary to the main argument discussed in the passage, which tries to refute the argument of the First Cause.  
 (b) It does not go with the theme of the paragraph, as discussed above.  
 (c) As the author believes that there is no validity in the argument of the First Cause, so the third choice is correct.  
 (d) Misleading choice. Out of scope of the passage, as it does not talk about the qualities of God.
2. (d) (a) Gravitation is not the main focus of the argument; moreover the para talks about Newton, and not Einstein.  
 (b) Does not follow; why would Modern science explain a popular belief.  
 (c) Does not make sense as the passage nowhere says that natural law was a part of the Newtonian system.  
 (d) This option takes the argument forward, ‘that was....’ is the link that takes the case further by questioning the validity of the conventional wisdom. Hence, option (d) is the answer.
3. (b) The lines are simple and direct. You have to find something that concludes the idea. So a, d, and c are quite tempting, although quite general in inference.  
 (a) One cannot deduce it from the argument.  
 (b) Option (b) concludes the idea mentioned in each line, hence, it is the answer.  
 (c) Again, this option is too farfetched.  
 (d) Once again, this option is too farfetched.
4. (a) Now, this should be pretty logical for those who believe in love.

- (a) hits the bulls eye, the only choice that logically completes the lines.  
 Hence, option (a) is the answer.
- (b) The choice is too creative although it rhymes well with the previous line.
- (c) ‘it takes two to two to tango’ is generally used with a negative sense, so out of question.
- (d) is out of scope, do not be misled by the word ‘divine’.
5. (d) (a, b) The passage nowhere talks about creativity or innovative thinking, so options (a) and (b) are out.  
 (c) take the negative tone too far, so we have to eliminate this choice.  
 (d) Option (d) is clearly the missing logical link, which is taken further by the last line of the passage. Mentioned in the last line ‘to resist environment is not easy and often risky’ supports this statement. Hence, it is the right answer.
6. (b) (a) The first choice is downright offensive, therefore not possible.  
 (b) It includes both the elements ‘education’ and ‘integration’, hence, the right choice and is the answer.  
 (c) Out of scope as the passage is about the ‘value of education’ and not spiritual evolution.  
 (d) It is well said but out of place because the paragraph does not say that education is not necessary.
7. (c) (a) It provides extra information which is out of scope of the passage.  
 (b) It does not go with the theme of the passage, which talks about the role of education in developing intelligence.

- (c) It fills in the missing link. It has been illustrated in the last two lines.  
 (d) This does not go with the last line, which tries to define real intelligence.
8. (c) (a) It strays from the theme of the topic and hence, eliminated.  
 (b) The previous line talks about the civil servants, so no connection between the two.  
 (c) It justifies the you-cannot-change-it-overnight element in the previous line, hence, the answer.  
 (d) It is totally unrelated to the topic.
9. (d) (a) The passage talks about big ideas motivating the individuals or nations, this option talks about negative motivation of the proletariat.  
 (b) It is counter to the theme of the paragraph which talks about the sweeping influence of the big ideas.  
 (c) This is contradictory to the main idea of the paragraph.  
 (d) Gives an illustration of how big ideas catch the popular imagination and create a wave of history.
10. (a) (a) Option (a) provides a solid example to support the main idea about fine-tuning the clemency jurisprudence.  
 (b) It is an extension of the topic, but it deviate from the topic of mercy petitions or clemency jurisprudence.  
 (c) Goes against the tone of the paragraph which is positive, ‘thoughtful exposition’ has been used  
 (d) It provides secondary information but fails to logically complement the last sentence.
11. (a) (a) Goes with the tone of the paragraph which is laudatory.  
 (b) It does not follow the last sentence which is positive.  
 (c) It dilutes the tone of the paragraph which is positive.  
 (d) ‘the vaccination programme’ does not have its antecedent in the previous line.
12. (d) (a) This could have been a possible choice, but it does not flow from the last sentence.  
 (b) This option is quite tempting, but misses on the ‘India’ element interspersed throughout the paragraph.
- (c) Last sentence in option (c) does not refer to any ‘problems’ as mentioned in this statement.  
 (d) It gels both the elements mentioned in the given lines, global brands and the great Indian dream.
13. (d) (a) It is not possible as the previous line talks about Forbes’ review of the movie.  
 (b) The paragraph nowhere talks about Scorsese, so this option is eliminated.  
 (c) The last line does not have Belfort as the main subject, so ‘he’ cannot be used for lack of clear antecedent.  
 (d) The author tries to argue that the greed of common man to make a fortune is not much different from a fraudster like Belfort who manipulates the stock market. Option (d) is in line with the theme of the paragraph. Hence, option (d) is the answer.
14. (d) (a) It does not go with the negative tone of the last line, ‘attacks the lifestyle.’  
 (b) Again, this option changes the tone of the passage which is negative.  
 (c) This is an extraneous piece of information which falls outside the scope of the discussion.  
 (d) As it explains how it ‘attacks the middle class’ and uses the analogy of wolves and sheep to support the case.
16. (a) Let us eliminate the options:  
 (b) talks about how does ‘voting’ come into picture. Passage does not mention that or is not related to that. Hence, option (b) is not the answer.  
 (c) looks tempting but does not flow from the passage.  
 (d) sounds like a U turn and hence, cannot be the answer.  
 (a) is left out, Hence, option (a) is the answer.
18. (a) (a) The first choice is correct, as it shows the effect of the two opposing views of the two countries engaged in tiff. Hence, this is the answer.  
 (b) It provides external information, so cannot be the answer.  
 (c) This is an extreme choice to be eliminated.  
 (d) It is out of scope of the passage, as it talks about a hypothetical situation.

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**PART**

**3**

# **READING COMPREHENSION**

**CHAPTER 1**  
Reading Comprehension

**CHAPTER 2**  
Reading Comprehension A Day

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# 1

# Reading Comprehension

## LEARNING Objectives

After going through this chapter, you get to know:

1. Why Reading Comprehension passages are given maximum weightage in the English section.
2. How to answer different types of question on RC and Understand the technique required.
3. How to read better and avoid inadequate ways of reading.

### ➤ WHAT IS READING COMPREHENSION?

Reading comprehension section in the CAT is the advanced version of the reading comprehension asked back school. Historically, the passages in the CAT have ranged from 350-1300 words, followed by a set of few questions. The passages are drawn from areas like pure Sciences, Social Sciences, Medicine, Art, Literature, Technology, etc. A student is supposed to answer the questions in light of the information given in the passage within the stipulated time. The ability of the student to make sense of the information and ideas presented in the passage is put to test through questions with multiple choice answers. More specifically, a person's ability to understand standard written English, analyse complex ideas, and ability to draw inferences from the written material is put to test.

The significance of Reading Comprehension, commonly known as RC can be gauged from the fact that almost half the questions in the Verbal Section are based on Reading Comprehension. Many students find RC to be tough and challenging, but with consistent practice, and patience, the art of Reading Comprehension can be mastered.

### ➤ WHY IS READING COMPREHENSION ASKED?

RC is the most important and wide question type of the English section of the CAT and other B-school entrance test. RC section helps examiners in assessing the expertise of one in understanding the language. Besides, RC also checks how well a person understands someone else's (the author's) view point his preferences and prejudices.

1. Reading Comprehension is integral to success in the CAT. Reading is important not only for RC, but also for English Usage area (especially in the Critical Reasoning or FIJ or Sentence arrangement questions), and LR/DI section. Having a good reading habit will make more time available for solving the problem.
2. Reading is essential to do well in a B-school. Life in a B-school demands extensive reading and research for case studies, presentations, and business projects. Today's global manager has to keep pace with the latest happenings in the corporate world, political changes in the country and the world, changing preferences of the customer. Therefore, newspapers,

### 3.4 ◇◇ Reading Comprehension

journals and business magazines form the staple diet of a wannabe professional.

#### 3. Reading helps in getting ahead in career.

Recent researchers have tried to analyse the reading habits of adults working in different organizations at different levels of management hierarchy. One such research finds that people at the higher levels have more positive attitudes toward reading and spend more time in reading. It gives us an idea that reading helps probably because a well read person will have viewpoints and knowledge about diversified fields in his/her occupation, that may lead to faster growth.

**Source:** <http://www.eric.ed.gov> (sponsored by US Dept of Education)

Let us now go through a sample RC passage:

#### ■ Breaking the Ice with RC and English Usage

**Read the passage carefully and answer the questions on the basis of the information supplied by the passage.**

With Barack Obama taking oath yesterday as America's 44th and first African-American president, the United States turned a page and closed a chapter. Obama's spectacular success story is packed with poignant, and powerful, symbolism. If he accepted the Democratic nomination last August on the anniversary of Martin Luther King Jr's 'I Have a Dream' speech, his inauguration follows the American holiday in memory of King. It is the culmination of an extraordinary story and a new beginning. Obama rode on a ticket for change. A country left bitter, fearful and divided by eight years of George W Bush's presidency, welcomed him with relief and expectation. The world, which had viewed America with growing alarm during these years, tuned in to Obama as well. He represented hope that America would manage its own house responsibly and favour consensus and cooperation while dealing with the world. But as enormous as his moment in history are the challenges Obama will face from day one.

Undoubtedly, the gloomy economy will consume much of the new president's energies and he has so far shown signs of clear thinking on how to get America up on its feet again. Equally tough are the assortment of challenges that will present themselves on Obama's foreign policy plate. One war needs to be wound down responsibly while America's attention has to shift to the real battleground in Afghanistan and Pakistan. Obama cannot afford to engage Pakistan only to tackle al-Qaeda and the Taliban. To continue the world's war against terror, he will have to pursue the other extremist outfits like Lashkar-e-Taiba and its front organizations which export violence from that country. They have had a generally free run despite Pakistan's claims to the contrary. For the sake of the world's security, Obama must press Islamabad to clamp down on these groups and close down their bases, something that the Bush administration failed to do for most of its run. And then there is the Middle East mess. Trying to achieve a degree of resolution there will

require fresh commitment and thinking from Washington. It is evident that Obama will have to hit the ground running. There are soaring expectations which cannot be all fulfilled. But he has a good base of credibility to start from. Opinion polls show he enjoys close to 80 per cent approval ratings as he picks up the keys to the White House and that the American people across political divides, are willing to give him a chance and their time. His commitment to consultative governance while being firmly in charge, and the A-list team he has picked, would hopefully serve America and the world well. Obama's inauguration party which has seen millions of Americans pour onto the streets to have a blast is a fine celebration of democratic ideals and values. Democracy's enabling promises are why Americans and those who share similar values elsewhere are raising a toast as they welcome President Barack Hussein Obama.

Q 1. What does the author want to convey from the statement: 'But as enormous as his moment in history are the challenges Obama will face from day one'

- (a) His ascent heralds a significant change but it also poses many daunting tasks ahead.
- (b) The challenges in front of Obama are insignificant in comparison to his heroic stature.
- (c) This the biggest moment in the history of the US, but also marks the beginning of Obama's onerous journey.
- (d) Obama shall face the toughest challenges in the first phase of his presidency.

Q 2. What can be inferred about the policies of Obama's predecessor?

- (a) His policies had less room for consensus and cooperation in world affairs.
- (b) His policies lacked clear thinking on how to get America upon its feet.
- (c) Pakistan was not engaged to tackle al-Qaeda and the Taliban.
- (d) He showed lack of commitment to tackle the Middle East crisis.

Q 3. According to the passage, Obama is likely to face all the following major challenges except:

- (a) To wind up the unresolved war.
- (b) To improve the gloomy economic situation.
- (c) To find a solution to the Middle East crisis.
- (d) To get the complete support of the White House and the American people push his plans ahead.

#### Answers and Explanations

1. The passage conveys that the change is remarkable but also throws new challenges ahead, hence, option (a). The other options talk about something which is nowhere given or indicated in the passage.
2. It can be inferred from the second paragraph fourth line 'He represented hope that .... dealing with the world,' hence, option (a) is the answer.

3. The passage talks about 80 per cent approval ratings as he picks up the keys to the White House and that the American people across political divides', therefore 'to get the support of people' is not a challenge for him, so option (d) is the answer.

### **❑ How to acquire mastery over Reading Comprehension?**

Knowing the weightage given to RC in the verbal section across the range of B-school entrance tests, a student is hardly left with any choice but to attempt at least a few passages.

In order to master the RC section, there are facts that a test-taker needs to know, prior to taking a test. These include:

#### **❑ 1. Does speed matter?**

Looking at the pattern of last few CAT papers in its online format, average length of a passage has hovered around 700–800 words per passage including questions. Assuming that a student solves all 3 passages in 25 minutes time, this leads to going through 2400 words (on an average) in 25 minutes  $\Rightarrow$  96 words per minute.

However, if a student goes through only two passages, then s/he will be going through only 1600 words in 25 minutes  $\Rightarrow$  64 words per minute. This is sufficient to get a good percentile if you attempt similar number of questions in LR and other English Usage questions.

Having said this, I strongly suggest pushing the limits and increasing the comprehension speed as much as possible, however not at the cost of accuracy.

#### **❑ 2. Its more about comprehension than reading**

There are two types of reading—reading with the eyes and reading with the brain.

Reading for RC is different from general reading where we read either to get some specific piece of information or we read at ease to relax or unwind ourselves after a long tiring day, and it may just be reading with the eyes ..... But for the competitive examinations we need to read with our brain because the purpose is different. And there comes the comprehension part. We read to find out the main idea of the passage and be accurate in answering the question, which even drains the physical energy. We read with sole objective to maximize our score, within a limited framework of time.

A practical suggestion can be given as to develop the habit of reading books of different genre, and developing a taste for intellectual debate and exploration. This can go a long way to develop the complete personality of the reader besides increasing the level of comfort in the RC section.

So, now what we focus upon is not reading speed but Comprehension speed.

#### **❑ 3. Practice is the key**

Solving RC practice exercises regularly helps develop confidence and gives an exposure to the nuances of RC. An aspirant is suggested to find out the main-idea of the articles in the editorial section of the news-papers, so that identifying the main-idea comes naturally to a student as it is integral to answering questions in CAT especially inferential ones.

#### **❑ 4. And finally, analyse the exercises done**

The work does not finish after solving the exercise. Analysing a test after solving is more important than students generally may think it to be. Analysis not only tells us where we went wrong and why we went wrong but also how those mistakes are to be avoided thence.

#### **❑ How to increase your reading speed?**

We have already discussed that with a decent speed of 80-100 words per minute only, RC can be managed for CAT, although importance of improving the reading speed (or for that matter improving anything else too) cannot be denied.

Generally, we read slowly because we believe that if we read slowly we will understand the things better. On the other hand, reading slowly leads to loss of concentration as our mind gets easily distracted, which leads to loss of interest, which further lowers down the reading speed.

It is important to understand how we read. Generally we read one to two words at a glance, pause for a fraction of a second and move to the other chunk of words. If we can train our eyes to read more number of words in a glance, our reading speed can increase manifold. With consistent practice, it may be possible to read the lines of a newspaper column in a single glance.

While reading a piece of text, we have tendency to move back, cross check and re-read the things which we have already read. Generally, this happens because of lack of interest, complex vocabulary, or poor retention of the reader. This is known as regression or skip back. The habit of regression has to be minimized if not eliminated. Pausing once in a while to figure out the contextual meaning of words, however, is not regression.

Regression is a big time killer. It breaks the flow of thought, and leads to poor concentration, which leads to more regressions, which further lowers down the reading speed. Thus regression makes reading a slow and tiresome process. The best way to eliminate regression is to move a pen or pencil smoothly under the text and make your eyes follow the text. This is a great way to train oneself to read faster.

### 3.6 ♦♦ Reading Comprehension

Some of us move our lips while reading. We tend to mumble the words audibly or inaudibly. The habit of sounding out words while reading is known as *vocalization*. The habit has its roots in our childhood when we were asked by our teachers in school to read aloud. Even at our homes, our mother would ask us to read aloud, when she used to be busy with the house chores. You could focus on the text (as there was no choice!), but how much of that could you understand? The problem with vocalization is it limits our reading speed, although it may help the reader to fix his mind on the subject matter.

Please note that as you experiment with these speed enhancement techniques, your comprehension will dip initially. Your mind may revolt, as many of us have been regressing and vocalizing throughout our school and college life. With a firm faith to improve reading effectiveness, coupled with consistent practice you can increase your reading speed manifold.

#### ■ Instructions

*Move your pen/pencil under the line of text uniformly and let your eyes follow the movement of the pacer (pen/pencil) and answer the following questions with Yes or No.*

Is Muntazer al-Zaidi, the Iraqi who hurled his Number 10 footwear at George W Bush during a press conference in Baghdad, a hero or a heel, in more ways than one? Opinion is sharply divided on this. On the one hand or rather, foot there are those who feel that al-Zaidi's behaviour was totally unacceptable, breaching as it did the code of conduct for journalists who as opinion formers must stick to rules of parliamentary conduct in their professional lives. Conversely, the footloose, or shoe-loose, journo has been hailed as a champion by all those and there are many of them who feel that his was a robust and deserved retort-in-kind to Bush's jackbooted militarist policy in Afghanistan, Iraq itself, and elsewhere.

The Baghdad authorities have taken a dim view of the episode and al-Zaidi who has in a letter to the Iraqi prime minister pleading for clemency described his no-soles-barred attack as an "ugly act" could face two years imprisonment for his outburst. However, an enthralled Egyptian father has offered his daughter's hand in marriage to the feisty al-Zaidi, saying that he had nothing more valuable than his girl child to offer the barefoot guerrilla. Another admirer, a Saudi tycoon, had offered to buy the famous footwear for \$10 million. Unfortunately, the sale could not take place as an embarrassed Iraqi officialdom had consigned the items in question to an incinerator.

While the jury remains out on whether al-Zaidi should eventually end up in the hall of fame or that of infamy, protocol officers and event managers of politicians and other public figures should put on their thinking caps to figure out ways and means to avoid or at least to minimize the impact of such incidents in future. All public rites and rituals marriages, funerals, birthday parties, press conferences are organized according to commonly accepted codes of

behaviour. It is high time that the ritual of public protest so vital to democracy and the concept of a free society should have its own guide book of dos and do not; we need an etiquette of demonstrative dissent.

In this exercise, we might like to take a tip from the would-be novelist who, before a public reading of his latest work, went to the market and bought quantities of eggs and tomatoes which he distributed among the audience, explaining that if he were to be pelted for deficiencies in his prose he would prefer the missiles to be fresh and not old and foul-smelling. This would appear to be an eminently civilized way of ordering such encounters: the protester would have the satisfaction of lodging, or lobbing, his protest, and the protestee the person being protested against would have the option of choosing the ammunition of the protester. In this way, both parties could claim satisfaction.

In the al-Zaidi-Bush case, such mutual gratification cannot be ruled out. While in the Arab world, and indeed in the Indian subcontinent, footwear with its unclean, animal skin associations is considered a particularly offensive projectile to have hurled at oneself, in the rawhide Texan context of 10-gallon hats and cowboy boots that the exiting US president hails from, similar qualms of ritual pollution need not apply.

In Islamic and Indic traditions, footwear is removed before entering places of worship or even private houses. No such practice applies in the West, particularly in the fabled Wild West of which Dubya is in some ways an embodiment in which it was deemed an honour to have 'died with one's boots on'. Indeed, having ducked in time, the president did not seem particularly fazed by being targeted by *jootis*, and later remarked that he must think up some good shoe jokes for future reference. Sound advice to all those who need to go public. Think of some good shoe jokes. Or good whatever-it-is-you-would-like-thrown-at-you jokes. And lay in stocks of your preferred tokens of protest to give to those who would protest against you. Eggs, tomatoes, chappals; the choice is yours.

- Q 1. Baghdad authorities have welcomed al-Zaidi's act.  
Yes/No
- Q 2. The shoe which was hurled was 9 in number. Yes/No
- Q 3. In Texas footwear is considered an offensive projectile.  
Yes/No
- Q 4. In Islamic tradition, footwear is removed before entering private houses. Yes/No
- Q 5. A Saudi tycoon bought the famous footwear for \$10 million. Yes/No

#### Answers and Explanations

1. No, the passage authorities have taken a dim view of the episode.
2. No, it was 10 in number.
3. No, the passage says that it's a part of the Texan culture where cowboys don leather apparel.

4. Yes, given in the second last paragraph.
5. No, Saudi tycoon had only offered to buy the famous footwear, and the sale did not take place.

### ➤ DIFFERENT CATEGORIES OF RC PASSAGES

The reading passages in CAT and other B-school entrance tests are different subject areas like History, Philosophy, Literature, Economics, etc. On the basis of the subject matter, viz., RCs can be broadly classified into different genre viz., Literature, Religion and Philosophy, Economics and Business, Psychology, Life Sciences, Physical Sciences, etc.

A passage from Sociology, arts, or Philosophy can discombobulate a student from science background, and disturb the momentum of the entire paper.

Although the average length of passages has gone down significantly over the years to as low as 500-600 words, the subject matter can be quite unfamiliar and unfriendly to an average test taker. The primary reason behind this discomfiture is that students are seldom comfortable with the vocabulary and concepts used in these subject areas.

Therefore a serious aspirant must thoroughly read newspapers editorials, magazine articles and books from different areas which offer new ideas and challenging vocabulary. Expose yourself to new concepts and ideas through online glossaries and encyclopedia.

The idea is to develop a basic framework of knowledge so that the reader becomes comfortable with different branches of knowledge. This can greatly reduce the shock factor one faces while confronting the abstract passages in the test paper.

Let's take a few sample passages from different disciplines. Be patient and keep your mind open to learning. Try to make sense of what the passage talks about, what the author is trying to convey.

### ➤ PASSAGE 1

#### **Physical Science**

A large part of the North Polar Region the Arctic, Alaska and Greenland has lost over two trillion tonnes of ice over the last five years, according to scientists interpreting new data obtained from a NASA satellite. What is alarming is that the melt figure refers to depletion of landlocked ice, and more than half the loss is in Greenland, contributing to half a millimeter of sea level rise annually. The total ice melt from the entire region has led to sea levels rising by one-fifth of an inch in five years. Add to this the Arctic Amplification Effect. The increase in the volume of Arctic waters absorbs more heat in the absence of sunlight-reflecting white ice which warms the oceans even more in summer. In autumn, the heat is released into the air, leading to rise in air temperatures, up to 10 degrees warmer now than recorded in the 1980s.

The Intergovernmental Panel on Climate Change's fourth assessment report warned last year that if the current rate of emissions continues unabated, the world

could reach a tipping point by 2050. Among other dire consequences, this would seriously impact the availability of drinking water, especially in Asia, Africa and Small Island Developing States.

James Hansen, director of NASA's Goddard Institute of Space Studies, says that the IPCC's estimates are conservative and the information outdated. New data reveal a situation that is far worse, calling for a 'Climate Code Red'. In other words, it's a planetary emergency. The December 2008 UN climate change conference in Poznan, Poland, did not reflect this urgency. Neither specifics nor timelines for curbing emissions were agreed upon that would help formulate a global plan of action at the Copenhagen December 2009 summit to firefight climate change.

The year 2008 could be the tenth warmest year on record, according to the UN Meteorological Agency. Tackling the problem together ought to get top priority rather than assignment of blame, since emissions and their effects know no borders. The answer lies in sharing of clean technology and stepping up research and development efforts in alternative and renewable energy options despite cheaper oil. Industrialized countries should release the promised 2 per cent from carbon trade profits to the UN Adaptation Fund to help developing countries cope with the effects of climate change. India is among the hot spots identified by the UN for extreme weather events. Its National Action Plan on Climate Change shows India is taking the problem seriously. But this might be insufficient without a global plan.

#### **Explanation**

The passage begins with the alarming fact that the North Polar Region has lost over two trillion tonnes of ice over the last five years. The melting ice leads to rising sea levels. The increased water volumes absorb more heat and release it into the air, leading to rise in air temperature, which causes global warming. The recent IPCC report says that if the current rate of emissions goes unchecked the world could reach a tipping point by 2050.

James Hansen, director of NASA's Goddard Institute of Space Studies believes that the situation is even bleaker. The answer lies in sharing of clean technology and stepping up research and development efforts in alternative and renewable energy options. Industrialized countries should part with some of their carbon trade profits to help the developing countries cope with the effects of climate change.

### ➤ PASSAGE 2

#### **Politics/Government**

The closing decades of the last century saw substantial offloading of responsibilities by national governments to those below both in the US and Canada. It would appear there is, what Kincaid (2002) calls a "federalist ferment" across the world. The ferment notwithstanding, federalism is facing

### 3.8 ◇◇ Reading Comprehension

challenges from several directions. First of all, the intellectual case for decentralization and federalism has come under some critical reappraisal. Even some of the key assertions regarding the virtues of decentralization and the assumptions underlying them have been challenged. Attention has been drawn to the possibility of decentralization failures and the merits of strong nationhood as a check against centrifugal forces gaining ascendancy and subverting the integrity of nations.

What is more, the very forces that led to the fall of oppressive statism and provided the impetus for decentralization, viz., globalization and the demise of statism, are now posing a threat to the sovereignty of nation states—their life blood—and along with them that of their constituent units with implications that are yet to unfold. Despite the moves towards decentralization and more room for junior governments in established federations, viz., the US, Canada and Australia, the signals are mixed. Federal government still accounts for 60 per cent of government expenditure in the US. Things have not changed much in Canada either.

In Australia, the trend, if any, is towards even more centralization. Some of the decentralized federal countries like Brazil are “recentralizing”. Globalization has generated pressures for reform in the economic and political organisation and thereby intergovernmental relations of all developing countries. There are forces pulling in opposite directions, tending to centralize functions envisaged by second tier governments, like states in India, and decentralize some to tiers further down citing “subsidiarity”.

The choice of the federal form for the US constitution that presaged the emergence of the federal idea across the world was motivated largely by the anxiety to have a central government that can act decisively when required unlike in a confederation, but with effective checks and balances by dividing powers between the federal government and the states.

What accounts for the current federalist ferment despite warnings about its risks and inefficiencies are basically two fold. One is the economic benefits of efficiency in the organisation and functioning of the public sector from decentralization 1—now encapsulated by the principle of “subsidiarity” in the EU’s Maastricht treaty—combined with the gains from the operation of a large common market. The other is commitment to diversity rather than homogeneity. And this is particularly relevant for a diverse country like India. There is also the strength that comes from unity, the ability to face calamities like the tsunami and threats to security like external aggression or terrorism.

#### **Explanation**

Federalism faces difficult challenges in the era of globalization, since the latter has generated pressures for reform in economic and political organizations and thereby in inter-governmental relations of all developing countries as well. There are forces in inter-governmental relations pulling in opposite directions, some tending to centralize functions of second tier governments,

such as of the states in India, and others moving to decentralise to tiers further down, citing “subsidiarity”.

#### **PASSAGE 3**

##### **Philosophy/Religion**

When I was a fairly precocious young man, I became thoroughly impressed with the futility of the hopes and strivings that chase most men restlessly through life. Moreover, I soon discovered the cruelty of that chase, which in those years was much more carefully covered up by hypocrisy and glittering words than is the case today. By the mere existence of his stomach everyone was condemned to participate in that chase. The stomach might well be satisfied by such participation, but not man insofar as he is a thinking and feeling being.

As the first way out there was *religion*, which is implanted into every child by way of the traditional education-machine. Thus I came—though the child of entirely irreligious (Jewish) parents—to a deep religiousness, which, however, reached an abrupt end at the age of twelve. Through the reading of popular scientific books I soon reached the conviction that much in the stories of the Bible could not be true. The consequence was a positively fanatic orgy of freethinking coupled with the impression that youth is intentionally being deceived by the state through lies; it was a crushing impression. Mistrust of every kind of authority grew out of this experience, a skeptical attitude toward the convictions that were alive in any specific social environment—an attitude that has never again left me, even though, later on, it has been tempered by a better insight into the causal connections.

It is quite clear to me that the religious paradise of youth, which was thus lost, was a first attempt to free myself from the chains of the “merely personal,” from an existence dominated by wishes, hopes, and primitive feelings. Out yonder there was this huge world, which exists independently of us human beings and which stands before us like a great, eternal riddle, at least partially accessible to our inspection and thinking. The contemplation of this world beckoned as a liberation, and I soon noticed that many a man whom I had learned to esteem and to admire had found inner freedom and security in its pursuit.

The mental grasp of this extra-personal world within the frame of our capabilities presented itself to my mind, half consciously, half unconsciously, as a supreme goal. Similarly, motivated men of the present and of the past, as well as the insights they had achieved, were the friends who could not be lost. The road to this paradise was not as comfortable and alluring as the road to the religious paradise; but it has shown itself reliable, and I have never regretted having chosen it.

#### **Explanation**

This is a selection from an essay written by the great scientist Albert Einstein. The author says that most people

chase material comforts throughout their lives, but it does not satisfy the thinking and feeling people like him. He believes that the traditional education ‘machine’ is rigid and mechanical. It dumbs down a person and limits one’s freethinking.

The author wants to free himself from the chain of merely personal to something bigger and universal, something which can give inner freedom and security. He sums up his argument by saying that path of religion offers many shortcuts and comfortable solutions but the quest for truth is riddled with many challenges.

## ➤ PASSAGE 4

### Economics

China’s lunar New Year sees the world’s largest migration, as tens of millions of workers flock home. Deserting for a few days the factories that make the goods that fill the world’s shops, they surge back to their native villages. This week, however, as they feasted to the deafening rattle of the firecrackers lit to greet the Year of the Ox, their celebrations had an anxious tinge. Many will not have jobs to go back to.

China’s breakneck growth has stalled. The rest of East Asia, too, which had hoped that it was somehow “decoupled” from the economic trauma of the West, has found itself hit as hard as anywhere in the world—and in some cases harder. The temptation is to see this as a plague visited on the region from outside, which its governments are powerless to resist or cure. In truth, their policy errors have played their part in the downturn, so the remedies are partly in their hands.

The scale and speed of that downturn is breathtaking and broader in scope than in the financial crisis of 1997–98. China’s GDP, which expanded by 13 per cent in 2007, scarcely grew at all in the last quarter of 2008 on a seasonally adjusted basis. In the same quarter, Japan’s GDP is estimated to have fallen at an annualized rate of 10 per cent, Singapore’s at 17 per cent and South Korea’s at 21 per cent. Industrial-production numbers have fallen even more dramatically, plummeting in Taiwan, for example, by 32 per cent in the year to December.

The immediate causes are plain enough: destocking on a huge scale and a collapse in exports. Even in China, exports are spluttering, down by 2.8 per cent in December compared with the previous year. That month Japan’s fell by 35 per cent and Singapore’s by 20 per cent. Falls in imports are often even starker: China’s were down by 21 per cent in December; Vietnam’s by 45 per cent in January. Some had suggested that soaring intra-regional trade would protect Asia against a downturn in the West. But that’s not happening, because trade within Asia is part of a globalized supply chain which is ultimately linked to demand in the rich world.

Some Asians are blaming the West. The Western consensus in favour of globalization lured them, they say, into opening their economies and pursuing export-led growth to satisfy the bottomless pit of Western consumer demand. They have been betrayed. Western financial incompetence has trashed the value of their investments and consumer

demand has dried up. This explanation, which absolves Asian governments of responsibility for economic suffering, has an obvious appeal across the region.

Awkwardly, however, it tells only one part of the story. Most of the slowdown in regional economic growth so far stems not from a fall in net exports but from weaker domestic demand. Even in China, the region’s top exporter, imports are falling faster than exports.

Domestic demand has been weak not just because of the gloomy global outlook, but also because of government policies. After the crisis a decade ago, many countries fixed their broken financial systems, but left their economies skewed towards exports. Savings remained high and domestic consumption was suppressed. Partly out of fright at the balance-of-payments pressures faced then, countries have run large trade surpluses and built up huge foreign-exchange reserves. Thus the savings of poor Asian farmers have financed the habits of spendthrift Westerners.

That’s not at all bad. One consequence is that Asian governments have plenty of scope for boosting domestic demand and thus spurring economic recovery. China, in particular, has the wherewithal to make good on its promises of massive economic stimulus. A big public-works programme is the way to go, because it needs the investment anyway. When Japan spent heavily on infrastructure to boost its economy in the early 1990s, much of the money was wasted, because it was not short of the stuff. China, by contrast, could still do with more and better bridges, roads and railways.

Yet, infrastructure spending alone is not a long-term solution. This sort of stimulus will sooner or later become unaffordable, and growth based on it will run out of steam. To get onto a sustainable long-term growth path—and to help pull the rest of the world out of recession—Asia’s economies need to become less dependent on exports in other ways.

Asian governments must introduce structural reforms that encourage people to spend and reduce the need for them to save. In China, farmers must be given reliable title to their land so that they can borrow money against it or sell it. In many countries, including China, governments need to establish safety-nets that ease worries about the cost of children’s education and of health care. And across Asia, economies need to shift away from increasingly capital-intensive manufacturing towards labour-intensive services, so that a bigger share of national income goes to households.

For Asian governments trying to fix their countries’ problems, the temptation is to reach for familiar tools—mercantilist currency policies to boost exports. But the region’s leaders seem to realise that a round of competitive devaluation will help no one. China has responded to American accusations of currency “manipulation” by denying it has any intention of devaluing the Yuan to boost exports. Structural reforms to boost demand would not only help cushion the blow to Asia’s poor and thus help avert an explosion of social unrest that governments such as China’s fear; they would also help counter the relentless rise in protectionist pressure in the West.

### 3.10 ◇◇ Reading Comprehension

If emerging Asia needs a warning of the dangers of relying on exports, it need look no further than Japan. Japan's decade-long stagnation ended in 2002, thanks to a boom in exports, especially to China. Now, largely because of its failure to tackle the root causes of weak domestic demand, it is taking more of an economic hiding than any other rich country. Japan used to see itself as the lead goose in a regional flight formation, showing the way to export-led prosperity. It is time for the other geese to break ranks.

#### **Explanation**

The article begins with a hint of irony that tens of millions of Chinese workers have been rendered jobless due to the economic recession amidst the backdrop of New Year celebrations. Many people believe that the economic crisis occurred because the Western countries lured the Asian countries into opening their economies and pursuing export-led growth. However, most of the slowdown in regional economic growth so far stems not from a fall in net exports but from weaker domestic demand. The domestic demand has been weak not just because of the gloomy global outlook, but also because of government policies, which left their economies skewed towards exports; The Savings remained high and domestic consumption was suppressed. But there is a silver lining too. There is a scope for boosting domestic demand and spend heavily on infrastructure. Asia's economies need to become less dependent on exports by introducing structural reforms that encourage people to spend and reduce the need for them to save. Moreover, the Asian economies need to shift away from increasingly capital-intensive manufacturing towards labour-intensive services.

#### ➤ **PASSAGE 5**

##### **Literature**

He that hath wife and children hath given hostages to fortune; for they are impediments to great enterprises, either of virtue or mischief. Certainly the best works, and of greatest merit for the public, have proceeded from the unmarried or childless men; which both in affection and means, have married and endowed the public. Yet it were great reason that those that have children, should have greatest care of future times; unto which they know they must transmit their dearest pledges. Some there are, who though they lead a single life, yet their thoughts do end with themselves, and account future times impertinences.

Nay, there are some other, that account wife and children, but as bills of charges. Nay more, there are some foolish rich covetous men that take a pride, in having no children, because they may be thought so much the richer. For perhaps they have heard some talk, Such an one is a great rich man, and another except to it, Yea, but he hath a great charge of children; as if it were an abatement to his riches. But the most ordinary cause of a single life, is

liberty, especially in certain self-pleasing and humorous minds, which are so sensible of every restraint, as they will go near to think their girdles and garters, to be bonds and shackles.

Unmarried men are best friends, best masters, best servants; but not always best subjects; for they are light to run away; and almost all fugitives, are of that condition. A single life doth well with churchmen; for charity will hardly water the ground, where it must first fill a pool. It is indifferent for judges and magistrates; for if they be facile and corrupt, you shall have a servant, five times worse than a wife. For soldiers, I find the generals commonly in their hortatives, put men in mind of their wives and children; and I think the despising of marriage amongst the Turks, maketh the vulgar soldier more base.

Certainly, wife and children are a kind of discipline of humanity; and single men, though they may be many times more charitable, because their means are less exhaust, yet, on the other side, they are more cruel and hardhearted (good to make severe inquisitors), because their tenderness is not so oft called upon. Grave natures, led by custom, and therefore constant, are commonly loving husbands, as was said of Ulysses, *vetulam suam praetulit immortalitati*.

Chaste women are often proud and forward, as presuming upon the merit of their chastity. It is one of the best bonds, both of chastity and obedience, in the wife, if she think her husband wise; which she will never do, if she find him jealous. Wives are young men's mistresses; companions for middle age; and old men's nurses. So as a man may have a quarrel to marry, when he will. But yet he was reputed one of the wise men, that made answer to the question, when a man should marry, A young man not yet, an elder man not at all.

It is often seen that bad husbands, have very good wives; whether it be, that it raiseth the price of their husband's kindness, when it comes; or that the wives take a pride in their patience. But this never fails, if the bad husbands were of their own choosing, against their friends' consent; for then they will be sure to make good their own folly.

#### **Explanation**

This is one of the most famous essays written by Francis Bacon, noted English philosopher, statesman, scientist, lawyer, jurist, and author titled '*Marriage and Single Life*'. In this essay, he uses witty language to compare the merits and demerits of married life with that of single life. It begins on a cynical note that marrying is a hindrance to any great enterprise. The unmarried or childless people have done the greatest things. The essence of single life is liberty, especially for self-pleasing and humorous minds. Marriage makes a person more disciplined and humane. Although single men are quite charitable they are more cruel and hardhearted. It includes one of the most popular quotes of Bacon, 'Wives are young men's mistresses; companions for middle age; and old men's nurses.'

## ➤ UNDERSTANDING THE STYLE AND TONE OF THE PASSAGE

Different writers adopt different ways to present their ideas, and even while using the similar writing techniques the author may reflect a different outlook, his way of looking at things. Therefore, to develop a better understanding of the text that is critical to answering questions in the CAT, it is important to understand the style and tone of the passage.

The style of the passage refers to how the ideas have been presented. It is the technique used by the author to convey his/her ideas. The style of writing depends on a variety of factors like the choice of words, clarity and accuracy of expression, sentence length, variety and structure, lucidity or complexity of language used.

### □ Writing Styles

1. The author could use a *narrative style* in which things move like a story; with a definite beginning, middle and end. It is characterized by a personal touch to the description of events.
2. *Descriptive style* of writing reports the details of a person, place, thing or event. It is more like a news report you see in the front page of a daily newspaper. The writer begins in a general manner, and then offers a detailed description of the subject.
3. *Analytical style* of writing, as the name suggests, involves a detailed treatment of an issue or situation. The author dives deep and tries to follow the chain of reasoning and draw inferences. The author weighs the different points of view in favour of or against his argument before arriving at any conclusion.
4. When the author uses the *argumentative style* of writing, he analyses the topic after taking a stand. He tries to persuade the reader using a chain of reasoning, evidence or suggestions. It is a variant of the analytical style of writing.

### □ Tone of Writing

The word tone generally refers to the quality of sound. But, when we refer to the tone of the passage, it refers to the predominant emotion or absence of it displayed by the author. The tone also reflects the attitude of the author towards a subject or character. Any predominant emotion may, thus become the author's tone.

Broadly, the tones can be classified as subjective or objective in nature. An objective tone is used when the author does not choose any side, and remains a neutral and detached observer. On the contrary a subjective tone reflects the emotion displayed by the author. Some of the common tones used by the authors are listed as follows:

**Critical:** Denotes negative or fault finding attitude of the author. Sometimes, the word critical is also used to denote deep analysis of the issue with a neutral outlook.

**Laudatory/Eulogistic:** To shower high praise on somebody or something.

**Cynical:** A higher degree of pessimism coupled with a sense of scepticism and helplessness.

**Satirical:** To use humour as a tool for healthy criticism.

**Sarcastic:** To use the words opposite to what you mean to taunt or make fun of somebody.

**Didactic:** When the author tries to teach or instruct through his writing.

**Nostalgic:** Conveys a sense of longing for the past.

### □ Example 1

Identify the tone of the passages given below.

## ➤ PASSAGE 1

Plants are not the only organisms that can be cloned naturally. The unfertilized eggs of some animals (small invertebrates, worms, and some species of fish, lizards and frogs) can develop into full-grown adults under certain environmental conditions—usually a chemical stimulus of some kind. This process is called parthenogenesis, and the offspring are clones of the females that laid the eggs.

Another example of natural cloning is identical twins. Although they are genetically different from their parents, identical twins are naturally occurring clones of each other.

Scientists have experimented with animal cloning, but have never been able to stimulate a specialized (differentiated) cell to produce a new organism directly. Instead, they rely on transplanting the genetic information from a specialized cell into an unfertilized egg cell whose genetic information has been destroyed or physically removed.

In the 1970s, a scientist named John Gurdon successfully cloned tadpoles. He transplanted the nucleus from a specialized cell of one frog (B) into an unfertilized egg of another frog (A) in which the nucleus had been destroyed by ultraviolet light. The egg with the transplanted nucleus developed into a tadpole that was genetically identical to frog B.

While Gurdon's tadpoles did not survive to grow into adult frogs, his experiment showed that the process of specialization in animal cells was reversible, and his technique of nuclear transfer paved the way for later cloning successes.

### Explanation

The passage describes the process of cloning in animals. He describes the early experiments of animal cloning objectively; without taking any stand or position. Therefore, the tone of the passage is *Objective* or *Scientific*.

## ➤ PASSAGE 2

Everyone agrees that President George Bush's lobotomy has been a tremendous success.

Dick Cheney, the vice-president, declared that he was fully satisfied with it from his point of view. "Without the lobotomy," Mr Cheney told the American Academy of Neurology, it might have proved difficult to persuade the president to start wars all around the world without any good pretext. But the removal of those parts of the brain associated with understanding the outcome of one's actions has enabled the president to function fully and without hesitation. Even when it is clear that disaster is around the corner, as it is currently in Iraq, the chief executive is able to go on TV and announce that everything is on course and that he has no intention of changing tactics that have already proved disastrous.

"I would like to commend the surgeons, nurses and all involved with the operation," said Mr Cheney. Similarly, Donald Rumsfeld regards the surgery as an unqualified success. He writes in this month's American Medical Association Journal: "The president's prefrontal leucotomy has successfully removed all neural reflexes resistant to war-profiteering. It is a tribute to the medical team who undertook this delicate operation that, no matter how close the connection between those instigating military action and the companies who benefit from it, the president is able to carry on as if he were morally in the right."

Paul Wolfowitz, the deputy secretary of defence, is also delighted at the beneficial effect that medical intervention has had on the president. "Just imagine how the president might have responded to Ariel Sharon's crazy schemes if we had not had the foresight to take out the neural pathways normally connected with perception and understanding," Mr Wolfowitz told a meeting of the Association of Muslim Neurosurgeons For An All-Jewish Israel. "The president is now capable of treating the man responsible for the massacres at Shatila and Sabra as a decent human being, whose advice on how to deal with the problems of Israel is worth not only listening to, but also taking."

With all this acclaim for the US president's lobotomy, it is scarcely surprising that Tony Blair, should have decided to follow suit and undergo similar psychosurgery.

Thanks to the inhibition of specific presynaptic terminals, Mr Blair now appears to feel totally comfortable giving his support to the US massacre in Falluja and to the activities of US snipers who have been so busy in that city shooting women, children and ambulance drivers in revenge for the murder of four mercenaries.

It is also believed that intervention in the motor speech area of his cortex now enables Mr Blair to describe Iraqis who respond negatively to having their houses blown up as "fanatics, extremists and terrorists". Similarly, ablation of the oculomotor nerve means that Mr Blair is now able to see Israeli plans to retain Jewish settlements in the West Bank as a big step forward in the Middle East peace process.

What has come as a complete surprise, however, is the recent revelation that Mr Blair's brain surgery may even

predate President Bush's. For without the removal of large portions of his cerebellum, it is hard to understand how the British prime minister could have turned down Mr Bush's no-strings offer to keep British troops out of combat in Iraq.

Political commentators are thus finding it impossible to say whether it is Mr Bush or Mr Blair who has pioneered the use of executive lobotomies in the war against terrorism.

### **Explanation**

This article is a satire on the former president of the US George W Bush. Satire uses humour as a tool of healthy criticism, especially to point out flaws of the society or system at large. Do not be bogged down by the medical jargon. Just amuse yourself and enjoy. The way the passage begins with 'The president's surgery has been a tremendous success' and then 'without the lobotomy ..... it might have proved difficult to persuade the president to start wars all around the world without any good pretext' has a touch of satire in it, as the author wants to criticize Bush's decision to start the wars around the world, hence, the tone of the passage is *satirical*.

## ➤ PASSAGE 3 (POEM)

I wandered lonely as a cloud  
That floats on high o'er vales and hills,  
When all at once I saw a crowd,  
A host, of golden daffodils;  
Beside the lake, beneath the trees,  
Fluttering and dancing in the breeze.

Continuous as the stars that shine  
And twinkle on the milky way,  
They stretched in never-ending line  
Along the margin of a bay:  
Ten thousand saw I at a glance,  
Tossing their heads in sprightly dance.

The waves beside them danced; but they  
Out-did the sparkling waves in glee:  
A poet could not but be gay,  
In such a jocund company:  
I gazed—and gazed—but little thought  
What wealth the show to me had brought:

For oft, when on my couch I lie  
In vacant or in pensive mood,  
They flash upon that inward eye  
Which is the bliss of solitude;  
And then my heart with pleasure fills,  
And dances with the daffodils.

### **Explanation**

This is a classic poem written by one of the greatest romantic poets William Wordsworth. The poem has a great lyrical element. It is apparent that the poet was not just elated by the sight of the daffodils, but he reached a different plane of

ecstasy. The poet has used vivid imagery. Expressions like ‘sparkling wave of glee; A poet could not but be gay ... in such a jocund company’ give us the impression that the tone of the passage is exalted or *laudatory*.

#### ➤ LOGICAL MAPPING OF THE PASSAGE

The author uses the reading passage as a tool to describe something, present his point of view on a particular subject, or elaborate a concept or idea. The author uses a web of words to convey his ideas and opinion.

The fact is only few words and key ideas are critical to understand the passage quickly and accurately. Rest of the words which form a mass of the passage are nothing but extensions, examples, explanations and facts used by the author to elaborate the theme of passage. Some of the words may also be used to display skillful use of language (Rhetoric).

Like an architect who makes a blueprint of the building, visualizing how the construction work will go in the future, an active reader makes a logical outline of ideas in his mind on the basis of how the author builds his ideas and what he wants to convey to the reader.

Underlining or making a mental note of the **key ideas** of each paragraph as they appear in the passage helps you to understand how the theme of the passage develops.

Since the passages are highly condensed, one is required to read between the lines too, to understand the important elements of the passage which are integral to answering the questions. Do not be misled by illustrations, examples or extensions given by the author but learn to sieve the important details.

Such focused reading also helps you to read faster as you save your time by not getting into extraneous details. It also increases the comprehension as one does not miss out on the main points.

#### ➤ PASSAGE 4

**Read the following passage carefully and underline the key points. Identify the logical flow of the passage.**

*Time Allowed: 8 minutes*

Education is a mess because politicians refuse to discipline teachers who sabotage primary education. Surveys show that government teacher absenteeism ranges from 20 per cent to 57 per cent in different states, yet they earn thrice or more than private sector teachers.

Some teachers run businesses (shops, transport services). Others skip school in the morning but give paid tuitions to richer students in the afternoon.

No wonder half of all students drop out by Class 7. Barely 30-50 per cent can read the alphabet in Class 1, and barely 40-50 per cent can read simply words in Class 2. Millions who complete school emerge functionally illiterate, unable to read simple paragraphs or do simple arithmetic. Yet no political party is willing to discipline teachers or demand performance.

An obvious reason is the power of teacher trade union. These often launch strikes just before school examinations, impelling state governments to surrender rather than jeopardize the future of students. Hence, teachers get ever-higher salaries while escaping accountability for performance. Teachers’ salaries appropriate almost the whole educational budget, leaving hardly anything for other items such as teaching materials and textbooks. Between 1960 and 1980 in Uttar Pradesh, the share of non-salary pending in education fell from 12 per cent to 3 per cent in primary education, and from 28 per cent to 9 per cent in secondary education.

A seasoned politician gave me a big additional reason for teacher power. You see, he said, government teachers preside over polling booths at election time. So we must cosset them, not antagonize them. Otherwise teachers will help rival parties to rig elections, and we cannot afford that at any cost.

A recent book by Geeta Kingdon and Mohammed Muzammil (*The Political Economy of Education in India*) throws new light on teacher power in Uttar Pradesh. Teachers are politically strong because they themselves have become politicians in astonishingly large numbers. Masterji has become netaji.

The Constitution provides a quota for teachers in the Upper Houses of State Legislatures. Only large states have an Upper House, but the bulk of the population is in such states.

Second, while the law prohibits government servants from contesting elections, it makes an exception for teachers. Why should teachers be allowed to contest but not doctors, clerks, sanitary engineers or other officials? The only reason is teacher clout.

Third, teachers are often the best educated in rural areas, and so are natural leaders. Hence, they are elected in large numbers to the lower houses of state legislatures too. Since they have so much spare time—they only teach in the mornings, if at all—many do political work. Some are really politicians pretending to be teachers in order to collect a regular salary and have an institutionalized position of power Fourth, politicized teachers help provide the troops needed for rallies and elections. Teachers help organize students in secondary schools to become political campaigners. This in turn produces a peculiar breed of “student leaders” who see a future in politics but none in education. They agitate for an automatic pass for all students, not high academic standards.

Kingdon and Muzammil give some stunning figures about the teacher-politician nexus in Uttar Pradesh. In the Upper House, 8.5 per cent of seats are reserved for teachers, yet the proportion actually elected to the Upper House varies from 13 per cent to 22 per cent. Clearly, the power of teachers far exceeds their Constitutional quota.

The Lower House has no teacher quota. Yet teachers accounted for 10.8 per cent of all elected MLAs in the 1993 election, and 8.7 per cent in the 1996 election, far above their 0.9 per cent share in the adult population.

Their share of Cabinet posts was even higher. This share has usually been in double digits since 1985, with a

peak of 16.3 per cent in 1991-92. This high share persists regardless of which party is in power—Congress, BJP, Samajwadi, BSP. Mayawati, whose party is tipped to win the next election, is herself an ex-teacher.

This, then, explains why all state governments treat teachers with kid gloves, and in the bargain ignore the mess in education. One obvious way to improve education and teacher accountability is to empower panchayats and parents' associations to discipline absentee teachers. But despite the Constitutional amendment seeking to devolve primary education to panchayats, all efforts at actual devolution have been sabotaged. The Kalyan Singh government in 1992 tried to give managers of aided private schools greater powers over teachers, but this led to a mass strike, and the government backed down. In the late 1990s the UP government tried to devolve some educational powers to panchayats, but once again teachers went on the rampage and the government caved in.

This is why many state governments prefer to let panchayats hire para-teachers—local people without proper teacher qualifications. These have helped improve basic literacy at a cost one-fifth that of regular teachers. That is a short-term gain, but para-teachers cannot provide quality education. Besides, in some states para-teachers are agitating to be recognized as regular teachers. What is the way out? Kingdon and Muzammil offer no panaceas. If villagers and panchayats get sufficiently angry with the mess in education, they could create a countervailing political force. That day still seems far off.

### **Explanation**

The 1st paragraph highlights the main idea of the passage—the sorry state of education in India is primarily because of political unwillingness to reform primary education.

The second and the third paragraph bring facts to support that education is in a state of complete mess like: high drop out rates of students and high absenteeism among teachers because of their personal interests. The author then discusses the real reason behind the teacher power: powerful teacher unions and other political compulsions. The author presents facts from the book by Kingdon and Muzammil to support his main argument explaining the reasons behind teacher power. The author presents some more facts and figures to explain the teacher-politician nexus. The last paragraph talks about one possible solution to this is to empower the local political bodies like village *panchayats* and parents' associations and the challenges in implementing it.

### **➤ DIFFERENT TYPES OF RC QUESTIONS**

RC is a tool which is used by the examiners to test a person's ability to understand and analyse text drawn from different areas. It also tests a person's ability to draw inferences, and if necessary to apply the inference in a new context or framework.

Reading passages do not directly test the general awareness or subject knowledge of any particular field,

although a broad awareness of different areas is helpful in increasing the comfort level, and consequently the confidence level with which a person handles the passages. RC questions may test you on either what is given in the passage or what can be deduced from the passage. The idea is to get as close as possible to the mind of the author—what he wants to convey through the framework of ideas interwoven in the passage. From the examination point of view, the RC questions can be broadly subdivided into six categories. A student should try to master different RC question types to exorcise the fear of RC from his mind forever.

1. Main Idea Question
2. Explicit Detail or Direct Question
3. Inference Question
4. Logical Structure Question
5. Tone or Attitude based Question
6. Extended Application Question

### **□ Main Idea Question**

Main idea of a passage can be defined as the most succinct summary that encompasses the passage.

These questions are very important and test one's ability to understand the overall theme of the passage, mainly 'what the passage is precisely about'. One needs to have a fair understanding of what the passage talks about 'as a whole', and not be confused by the facts, explanations and examples given by the author to support the main idea. Main idea is generally indicated in the first part of the passage. Rarely, it could also come in the concluding part of the article.

Sometimes, the main idea question may be based on supplying a suitable title for the passage. A suitable title is one which captures the major elements of the passage in the shortest logical manner.

### **□ Explicit Detail or Direct Question**

These questions use the phrases like 'According to the passage ....', or 'The author/passage mentions the following except:' These questions are easier to tackle as they test one's ability to find specific information given in the passage. One has to locate the detail in the form of information, Data or Statistics as mentioned in the passage.

These questions provide direct clues like line references which make them easier to crack. Sometimes, these questions can also ask the contextual meaning of an underlined or italicized word as it has been used in the passage. This type of questions may not be frequently asked in the CAT now but appear in SNAP and FMS test.

### **□ Inference Questions**

To infer is to draw or deduce something on the basis of what is given in or implied by the passage. These questions are favorite of the CAT. The students find these questions

challenging, as answering these questions requires a careful reading of the passage, which includes the ability to read between the lines, ability to interconnect the different logical elements given in the passage.

These questions typically use words like infer, imply, arrive at, deduce, surmise, etc. To handle these questions one must refer back to that part of the passage from where the inference has been drawn, correlate the concepts if necessary, and narrow down the answer choices. Both the aspects are important: to read the context given in the passage, and to gradually eliminate the answer choices to arrive at the best solution.

Generally, the students get stuck up between the last two options. One must settle for the answer choice which is more clearly and specific on the basis of the main idea of the passage.

### **■ Logical Structure Question**

These questions ask about why the author introduces a specific point, gives a particular example, or quotes somebody in the passage. Sometimes, these questions also ask about overall development of the passage about ‘WHY’ the author uses a particular example, anecdote, refutation, or counter argument to develop the passage.

These questions mainly focus on ‘WHY’ of the subject matter. Therefore, it becomes important to read the mind of the author. These questions generally give you a line reference from where the example or quote has been taken. If you carefully read two to three lines above or below the line from where the text has been taken and work with the options, you can hit the bull’s eye. Remember the answer can never be within the of line reference, as the question is ‘WHY’ that particular thing has been mentioned.

### **■ Tone/Attitude Based Question**

These questions test your ability to find out the underlying emotion of a particular line, paragraph or passage as a

whole. One has to judge the attitude of the author towards his subject. These questions are not common in the CAT and other B-school entrance tests, however, a fair understanding of tone helps one to understand the passage better and faster. One must develop the ability to understand the different shades of mood displayed by the author. Vocabulary plays an important role in handling these questions as the words like eulogistic or satirical are not used commonly used in colloquial or written English.

Attempt these questions only if you have a fairly clear idea of the emotional underpinning of the sentence or paragraph in question.

### **■ Extended Application Question**

Application based questions take the logic a step further to that involved in inference questions. They test the ability to apply what you have learnt from the passage into a new context or framework, sometimes even unrelated to the passage. These questions are a bit challenging to the students, as they test one’s ability to think creatively and see things in new light.

These questions generally look like: ‘The author would most likely/least likely agree with ....’ ‘Which of the following statements if true would most strongly strengthen/weaken the argument’ ‘the writer/target audience of the passage is most likely .....

To handle these questions one must meticulously narrow down the options keeping an eye on the main idea, scope and tone of the passage. These questions should be touched only when one has developed a clear understanding of the passage.

Another format of the application question is ‘which of the following is likely to be the title of the forthcoming/next article written by the author.’ These questions can be easily cracked if you carefully read the last paragraph and find out where the author leaves the passage, what are the unexplained issues or explanations which leave room for further discussion, analysis or elucidation.

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# 2

# Reading Comprehension A Day

## ➤ PASSAGE 1

**Start Time:**

**End Time:**

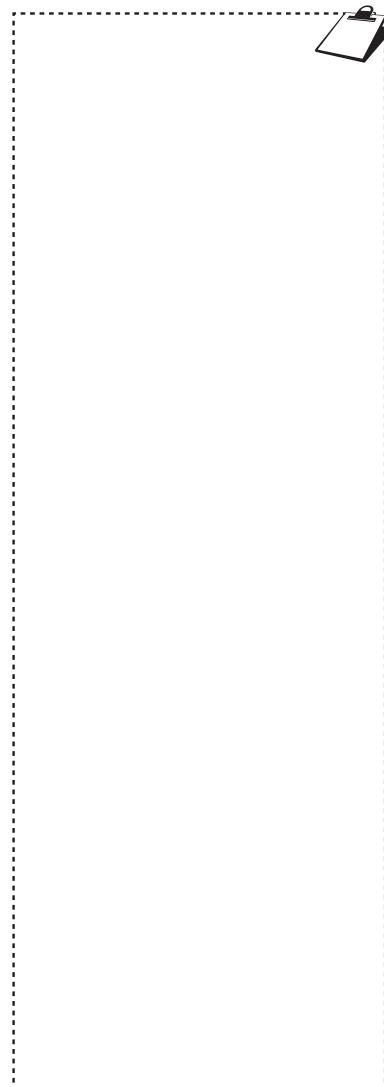
**Direction for questions 1 to 3:** Read the passage given below and solve the questions based on it.

Deborah Mayo is a philosopher of science who has attempted to capture the implications of the new experimentalism in a philosophically rigorous way. Mayo focuses on the detailed way in which claims are validated by experiment, and is concerned with identifying just what claims are borne out and how. A key idea underlying her treatment is that a claim can only be said to be supported by experiment if the various ways in which the claim could be as fault have been investigated and eliminated. A claim can only be said to be borne out by experiment, and a severe test of a claim, as usefully construed by Mayo, must be such that the claim would be unlikely to pass it if it were false.

Her idea can be explained by some simple examples. Suppose Snell's law of refraction of light is tested by some very rough experiments in which very large margins of error are attributed to the measurements of angles of incidence and refraction, and suppose that the results are shown to be compatible with the law within those margins of error. Has the law been supported by experiments that have severely tested it? From Mayo's perspective the answer is "no" because, owing to the roughness of the measurements, the law of refraction would be quite likely to pass this test even if it were false and some other law differing not too much from Snell's law true. An exercise I carried out in my school-teaching days serves to drive this point home. My students had conducted some not very careful experiments to test Snell's law. I then presented them with some alternative laws of refraction that had been suggested in antiquity and mediaeval times, prior to the discovery of Snell's law, and invited the students to test them with the measurements they had used to test Snell's law; because of the wide margins of error they had attributed to their measurements, all of these alternative laws pass the test. This clearly brings out the point that the experiments in question did not constitute a severe test of Snell's law. The law would have passed the test even if it were false and one of the historical alternatives true.

Word Count = 371

Time Taken =



### 3.18 ✦✦ Reading Comprehension



- Q 1. Which of the following conclusion can be drawn from the passage?
- (a) Experimental data might support multiple theoretical explanations at the same time, hence, validity of theories needs to be tested further.
  - (b) Precise measurement is a sufficient condition to ensure validity of conclusions resulting from an experiment.
  - (c) Precise measurement is both a necessary and sufficient condition to ensure validity of conclusions resulting from an experiment.
  - (d) Precise measurement along with experimenter's knowledge of the theory underpinning the experiment is sufficient to ensure the validity of conclusions drawn from experiments.
- Q 2. As per Mayo's perspective, which of the following best defines the phrase "scientific explanation"?
- (a) One which is most detailed in its explanation of natural phenomena.
  - (b) One which has been thoroughly tested by scientific experts.
  - (c) One which survives examinations better than other explanations.
  - (d) One which refutes other explanations convincingly.
- Q 3. The author's use of Snell's law of refraction to illustrate Mayo's perspective can best said to be
- (a) contrived.      (b) premeditated.
  - (c) superfluous.    (d) illustrative.

#### ➤ PASSAGE 2

**Start Time:**

**End Time:**

**Direction for questions 1 to 4:** *Read the passage below and solve the questions based on it.*

Though the last twenty-five years have seen China dazzle the world with its excellent economic performance it has shied away from playing the kind of active role in international affairs that would seem commensurate with its economic weight. This is because traditionally China's politics have been defined by the need for economic development above all else. In the past China's authorities have tended to downplay the country's international clout, choosing to stress instead its developing country status and limited military capabilities. Such modest rhetoric was intended to allay the fears that China's rise was causing across its immediate neighborhood. That Beijing is finally acknowledging its status as a major player in the international system is evidenced by the fact that the President has formally developed a theory of international relations; the concept of harmonious world. The concept, encompassing broad notions of multilateralism, prosperity for all through common development and tolerance for diversity has left world opinion perplexed. These are commendable objectives but the theory is short on specifics regarding the means to achieve them.

China's recent willingness to be a more active player internationally stems from complex factors. The country's economic strength—having acquired the largest foreign exchange reserves in the world—is undeniable and reports favor it to be the largest economy in the next quarter of a century. For sustained double digit economic growth China thus has no choice but to become more active internationally. Moreover as a major proportion of the oil and other natural resources that China needs to feed its growing economy are imported, Beijing has to aggressively woo the countries rich in energy resources, which also represent emerging markets for Chinese products. To ensure a stable security environment within the region and thus facilitate economic growth, China played an active role in facilitating negotiations with North Korea. Destabilization of a potential flashpoint like the Korean peninsula would lead to a flood of refugees crossing the border, interrupting careful plans of economic rejuvenation of China's North-East. China's growing influence has



caused a shift in the geopolitical status quo and its influence is beginning to replace that of the United States and European powers in Africa. China's new diplomacy though has had its share of critics who have expressed their unease at China's military modernization programme and its willingness to deal with regimes widely condemned as corrupt and oppressive. Despite this when the Africa was in need of aid and infrastructure or the US needed help in negotiating with Korea they turned to China. By taking a lead in a variety of international and regional forums, initiating bilateral and military exchanges and dispensing aid and technical assistance in parts of the world where traditional powers are cautious to tread China has signed that its days of sitting on the sidelines, content to let others shape world affairs are emphatically over.

Word Count = 494

Time Taken =

Q 1. Why has China traditionally been a passive spectator in global affairs?

- (a) To safeguard its oil resources.
- (b) To maintain security in its vicinity.
- (c) To conceal its economic predicament.
- (d) To focus on domestic economic growth.

Q 2. Which of the following best describes China's current international status?

- (a) Cause of insecurity among developing nations.
- (b) Largest economy in the world.
- (c) Largest donor of aid to developing countries.
- (d) Pioneer of implementing a "harmonious world" philosophy.

Q 3. What has been the fall out of China's increased participation in world affairs?

- (a) International scrutiny of its economic policies.
- (b) Growth of corruption among its politicians.
- (c) Its influence and prestige have grown substantially.
- (d) Its growth rate has stabilized.

Q 4. Which of the following is TRUE in the context of the passage?

- (a) China's current political standing internationally disproportionate to its financial strength.
- (b) China is a reluctant participant in military dialogues.
- (c) The harmonious world theory is the only utilitarian remedy to the current challenges facing the world.
- (d) US has recognized and acknowledged China's growing international reputation.

### ➤ PASSAGE 3

**Start Time:**

**End Time:**

**Direction for questions 1 to 3:** Read the passage below and solve the questions based on it.

In 1980, the US Supreme Court overturned decades of legal precedents that said that naturally occurring phenomenon, such as bacteria, could not be patented because they were discoveries rather than inventions. Yet that year, the Court decided that a biologist named Chakrabarty could patent a hybridized bacterium because 'his discovery was his handiwork, not that of nature'. A majority of the judges reiterated that 'a new mineral discovered in the earth or a new plant discovered in the wild is not patentable'. Yet they believed that Chakrabarty had concocted something new using his own ingenuity. Even Chakrabarty was surprised. He had simply cultured different strains of bacteria in the belief that they would exchange genetic material in a laboratory soup. The then embryonic industry used the case to argue that patents should be issued on gene, proteins and other materials of commercial value.

### 3.20 ◇◇ Reading Comprehension



By 1980s, the US Patent Office had embarked on a far-reaching change of policy to propel the US industry forward, routinely issuing patents on products of nature including genes, fragments of genes and human proteins. In 1987 for example, Genetics Institute Inc was awarded a patent on erythropoietin, a protein of 165 amino acids that stimulates the production of red blood cells. It did not claim to have invented the protein: it had extracted small amounts of the naturally occurring substance from thousands of gallons of urine. Erythropoietin is now a multi-billion dollar-a-year treatment.

The industry's argument is that innovation prospers only when it is rewarded. Without rewards, innovation will not take place. The barriers to entry into biotechnology are relatively low. Biotechnology companies do not have to build costly factories of high street retail outlets or invest in brand reputations. The basic units of production are bacteria manipulated to deliver therapeutically and commercially valuable substances. Without the protection of a patent, an innovative biotechnology company will find its discoveries quickly copied by later entrants. If the ownership of rights to exploit a genetic discovery were left unclear, there would be less innovation in the economy as a whole and we would all be worse off. The biotechnology industry in USA is larger than anywhere else, in part because innovators there have been allowed to patent their 'inventions'. In 1998, there were almost 1500 patents claiming rights to exploit human gene sequences.

Yet the ownership regime for industries and products spawned by genetics is far from settled. A practical argument is about what should be owned—the gene or the treatment. The cystic fibrosis gene, for example, is patented, and anyone who makes or uses a diagnostic kit that uses knowledge of the gene sequence has to pay royalty to the patent holder. Many would argue that this is too broad a patent, which may be excessively strong and slow down innovation. As we move into the knowledge economy, issues such as the breadth and scope of a patent, the standards of novelty, even the duration, will become more problematical. To put in another way, who should own what and for how long will become more of an issue in a knowledge driven economy. That is because incentives to exploit knowledge need to be set against the value of sharing it. Scientific enquiry proceeds as a result of collaboration, the sharing and testing of ideas. We are lucky that James Watson and his collaborator Francis Crick did not work for Genentech or Glaxo Wellcome because every genetic researcher would now be paying a royalty to use their discovery. Genetics, as most sciences, is built on bedrock of shared knowledge. The more basic the knowledge, the more inappropriate strong property rights and exclusive private ownership becomes. Privatisation of knowledge may make it less likely that know-how will be shared. PerkinElmer will publish its research on the human genome, but only once in three months and the company will reserve at least 300 genes for its own patent programme. Publicly funded researchers share their results more openly and more frequently.

Word Count = 662

Time Taken =

Q 1. The erythropoietin episode shows that

- (a) patenting is the only way to encourage exploration of new ideas.
- (b) patenting accelerates exploitation of new ideas.
- (c) claims to patentability are often false.
- (d) None of these

Q 2. After reading the passage, which of the following statements do you think captures best, the tenor of the piece?

- (a) The author is unequivocal about undesirability of a patenting system.
- (b) The author explores the complexities in patenting.
- (c) The author deliberately obfuscates issues.
- (d) The passage is boring about.

Q 3. Chakrabarty patent issue shows that

- (a) patent authorities are infallible.
- (b) patent systems are *adhoc*.

- (c) patenting rationale is socially embedded and evolutionary.  
 (d) None of these



## ➤ PASSAGE 4

**Start Time:**

**End Time:**

**Direction for questions 1 to 5: Read the passage below and solve the questions based on it.**

Kodak decided that traditional film and prints would continue to dominate through the 1980s and that photo finishers, film retailers, and, of course, Kodak itself could expect to continue to occupy their long-held positions until 1990. Kodak was right and wrong. The quality of digital cameras greatly improved. Prices plunged because the cameras generally followed Moore's Law, the famous prediction by Intel co-founder Gordon Moore in the 1960s that the cost of a unit of computing power would fall by 50 per cent every eighteen to twenty-four months. Cameras began to be equipped with what the industry called removable media – those little cards that hold the pictures – so pictures were easier to print or to move to other devices, such as computers. Printers improved. Their costs dropped, too. The internet caught the popular imagination, and people began e-mailing each other pictures rather than print them. Kodak did little to ready itself for the onslaught of digital technology because it consistently tried to hold on to the profits from its old technology and underestimated the speed with which the new would take hold. Kodak decided it could use digital technology to enhance film, rather than replace it. Instead of preparing for the digital world, Kodak headed off in a direction that cost it dearly. In 1988, Kodak bought sterling drug for \$5.1 billion. Kodak had decided it was really a chemicals business, not a photography company. So, Kodak reasoned, it should move into adjacent chemical markets, such as drugs. Well, chemically treated photo paper really is not that similar to hormonal agents and cardiovascular drugs. The customers are different. The delivery channels are different. Kodak lost its shirt. It sold sterling in pieces in 1994 for about half the original purchase price. George M.C. Fisher was the new CEO of Kodak in 1993. Fisher's solution was to hold on to the film business as long as possible, while adding a technology veneer to it. For instance, he introduced the advantix preview camera, a hybrid of digital and film technology. User took pictures the way they always had, and the images were captured on film. Kodak spent more than \$500 million developing advantix, which flopped.

Fisher also tried to move Kodak's traditional retail photo-processing systems into digital world and in this regard installed tens of thousands of image magic kiosks. These kiosks came just as numerous companies introduced inexpensive, high-quality photo printers that people could use at home, which, in fact, is where customers preferred to view their images and fiddle with them. Fisher also tried to insert Kodak as an intermediary in the process of sharing images electronically. He formed partnerships that let customers receive electronic versions of their photos by e-mail and gave them access to kiosks that let them manipulate and reproduce old photographs. You do not need Kodak to upload photos to your computer and e-mail them. Fisher also formed a partnership with AOL called "You have Got Pictures." Customers would have their film developed and posted online, where friends and family could view them. Customers would pay AOL \$7 for this privilege, on top of the \$9 paid for photo processing. However sites like snapfish were allowing pictures to be posted online free. Fisher promised early on, that Kodak's digital-photography business would be profitable by 1997. It was not. In 1997 Philippe Kahn led the advent of cell phone camera. With the cell phone camera market growth Kodak did not just lose out on more prints. The whole industry lost out on sales of digital cameras, because they became just a feature that was given away free on cell phones. Soon cameras became a free feature on many personal computers, too. What had

### 3.22 ✦✦ Reading Comprehension

been so profitable for Kodak for so long—capturing images and displaying them was going to become essentially free.

In 1999 Fisher resigned and Carp became the new CEO. In 2000, Carp's first year as CEO, profit was about flat, at \$1.41 billion. Carp, too, retired early, at age fifty-seven. Carp had pursued Fisher's basic strategy of "enhancing" the film business to make it last as long as possible, while trying to figure out some way to get recurring revenue from the filmless, digital world. But the temporizing did not work any better for Carp than it had for Fisher. Kodak talked, for instance, about getting customers to digitize and upload to the internet more of the 300 million rolls of film that Kodak processed annually, as of 2000. Instead, customers increasingly skipped the film part. In 2002, sales of digital cameras in the United States passed those of traditional cameras—even though Kodak in the mid-1990s had projected that it would take twenty years for digital technology to eclipse film. The move to digital in the 2000s happened so fast that, in 2004, Kodak introduced a film camera that won a "camera of the year" award, yet was discontinued by the time Kodak collected the award. Kodak staked out a position as one of the major sellers of digital cameras, but being "one of" is a lot different from owning 70 per cent to 80 per cent of a market, as Kodak had with film, chemicals, and processing. In 2002 competition in the digital market was so intense that Kodak lost 75 per cent of its stock-market value over the past decade, falling to a level about half of what it was when the reporter suggested to Carp that he might sell the company. As of 2005, Kodak employed less than a third of the number who worked for it twenty years earlier. To see what might have been, look at Kodak's principal competitors in the film and paper markets. Agfa temporized on digital technology, then sold its film and paper business to private-equity investors in 2004. The business went into bankruptcy proceedings the following year, but that was not Agfa's problem. It had cashed out at a halfway reasonable price.

Word Count = 974

Time Taken =

Q 1. As per the passage which of the following statements truly reflects the real theme of the passage?

- (a) Moore's law predicted that cost per unit of computing power would exhibit a standard deviation of 25% per annum.
- (b) Popularity of removable media and internet lead to high demand for computers.
- (c) Kodak managers were able to predict the flow of digital technology and their critical value drivers.
- (d) Kodak did not have a vision to plough back the profits from old technology to research and development in new technology.

Q 2. Which of the following statements is not true?

- i. Kodak bought Sterling Drug as a strategic choice for a chemical business as it was already in the business of chemically treated photo paper.
  - ii. The chemical business was in sync with the existing business of Kodak running across the customer segment, delivery channels and the regulatory environment.
  - iii. Kodak committed a mistake by selling Sterling in pieces at a loss of 50%.
  - iv. Kodak's diversification attempt with purchase of Sterling to strengthen its core business and shift to digital world was a shift from its strategic focus.
- (a) Only i and ii    (b) Only ii and iii
  - (c) Only iii and iv    (d) Only i, ii, iii

Q 3. Kodak lost a big piece of its market share to its competitors because of the following best explained reason.

- i. When Carp became the CEO the digital technology eclipsed film technology business and further Carp had been with the company for twenty nine years and had no background in technology.





- ii. Carp in 2004 introduced a film camera that won camera of the year award, yet it was discontinued by the time Kodak collected the award.
  - iii. Kodak moved from traditional retail photo processing systems into digital world installing several thousands of image magic kiosks that failed to deliver real benefits to the customers.
  - iv. Phillip Kahn led the advent of cell phone camera and Kodak lost out on the print business and ability to share images became a free feature with no additional charge.
- (a) i and ii      (b) ii and iii  
 (c) i and iv      (d) iii and iv
- Q 4.** Arrange the given statements in the correct sequence as they appear in the passage.
- i. Kodak lost to its competitors a big pie of its market share.
  - ii. Kodak ventured into chemical business to strengthen its digital technology business.
  - iii. Kodak downsized its workforce drastically.
  - iv. Kodak tied up with business firms for photo processing.
- (a) i, ii, iii, iv  
 (b) iii, iv, ii, i  
 (c) ii, iv, i, iii  
 (d) i, iii, ii, iv

**Q 5.** Match the following:

- |           |   |
|-----------|---|
| 1. Intel  | a. Preview cameras that helped users to immediately see the pictures taken. |
| 2. Fisher | b. Photo processing, developing and posting online photos.                  |
| 3. AOL    | c. Lead to insolvency of digital technology business.                       |
| 4. Agfa   | d. Price of technology product reduces to half every year or two.           |
- (a) 1-d, 2-a, 3-b, 4-c  
 (b) 1-a, 2-d, 3-c, 4-b  
 (c) 1-c, 2-b, 3-a, 4-d  
 (d) 1-d, 2-c, 3-a, 4-b

## ➤ PASSAGE 5

**Start Time:**

**End Time:**

**Direction for questions 1 to 6:** *Read the passage below and solve the questions based on it.*

Deliberative democracy demands a reflexive (or reflection driven) reordering of preferences in a non-coercive manner. The authenticity of democracy requires in addition that these reflective preferences, influence collective outcomes and action, and so long as the state is the main (though far from exclusive) locus of collective decisions; it requires discursive mechanisms for transmission of public opinion to the state. A deliberative or more properly a discursive democracy, in order that it can accommodate several competing versions of democracies such as the liberal, the minimal, the difference, etc., must also accommodate rhetoric, narratives, and empathy along with reasoning. A rationality and a reasoning that does not accommodate values is meaningless. However, it is also argued that individual rationality cannot be realised if values are embedded in the decision procedures, in other words, realisation of values could be made possible only when

### 3.24 ◇◇ Reading Comprehension

individuals behave non-rationally. Further if values having been abandoned at the individual level are accorded a place only collectively, the same must lead to either “epistemological inconsistency or abandonment of autonomy of individual evaluations”. A talk or a rhetoric, otherwise, is strategic and is employed with the intention of signaling certain information. Such a talk can be therefore deceptive and coercive. The illocutionary force and the normative trappings of a Foucauldian discourse while allowing identification with a community and differences with the others, do simultaneously pose through coercion a threat to an utterance as such. If democracy cannot ensure utterance as freedom and if the illocutionary forces in a discursive democracy disciplines the thought and the talk, then how such a democracy could indeed be called authentic!

Most human actions and discourses are actuated by a deeper or primordial ante-deliberation Desire (let us use a capital D). Speaking as such is out of such a Desire (one might use volition or passion). Engaging in a deliberation or else in an action is possible only since there has been such a Desire. Desire appears to both the reflection and also to an observer as a mental-state. A discourse can be set only when such mental states are in harmony, or share a common predisposition or attitude. In the absence of such shared mental-states, no discourse and no deliberation can begin. A running underlying and most often unstated theme that remains at the back of the idea of deliberative democracy is competition – a competition with the ‘other’ which introduces strategy. The alternative to competition, a mental-state which is out of a Desire to enjoy the ‘other’ in the light of a memory that this ‘one’ and the ‘other’ were but the same and would again become the same, do not appear in the known Anglo-American literature. Such a mental-state might generate and keep alive possibilities, of cooperation although is never a state of cooperation alone as such.

Word Count = 469

Time Taken =

Q 1. Which of the following follows from the passage above?

- (a) A rhetoric laden talk can generate authentic democratic collective choice.
- (b) Irrational persons alone can have values.
- (c) Authenticity of democracy requires a strong reflection-action interaction.
- (d) A paradigm of competition alone can sustain an authentic democracy.

Q 2. Desire as ante-deliberation driving action refer to

- (a) Irrationality of deliberation.
- (b) Uselessness of deliberation.
- (c) Desire to act without thinking.
- (d) Temporal inconsistency in a position that argues for deliberative action constituting democracy.

Q 3. Which of the following is true from the passage?

- (a) Author argues that democracy is bound to fail.
- (b) Author argues that Desire is primal.
- (c) Author argues for an end to primal desire so that an end to competition can come through.
- (d) None of these

Q 4. A Foucauldian discourse as used in the passage does NOT refer to

- (a) discourse based on power.
- (b) community based discourse.
- (c) strategic discourse.
- (d) None of these

Q 5. Which of the following words is closest to the word ‘primordial’ as used in the passage above?

- (a) Elemental
- (b) Anarchist
- (c) Animalistic
- (d) Nihilistic





- Q 6. Which of the following captures the spirit of the position that the author hints at through the phrase ‘alternative to competition’?
- All the pragmatic world is a stage – a play unfolding.
  - Democracy is an unruly fight among citizens.
  - Socialist planning does away with the chaos of competition.
  - None of these

## ➤ PASSAGE 6

**Start Time:**

**End Time:**

**Direction for questions 1 to 4:** *Read the passage below and solve the questions based on it.*

Democracies everywhere, but perhaps nowhere more so than in India, present a complex scenario of tensions between constraints and liberty, unfreedom and freedom, the imperatives of the modern national security state and the aspirations of a free citizenry. The very fact that India has repeatedly been able to mount general elections since it gained its freedom from British rule in 1947, and on a scale never before witnessed in history, is adduced as evidence of the strength of Indian democracy—an accomplishment that seems all the more remarkable given the precarious state of democracy in most of the world. Indeed, assumptions about the **robustness** of democracy in India always take as their implied referent the contrast that comes to mind with Pakistan and many other states in the global South. Pakistan has been under military rulers for 32 of its sixty years of its existence, and even its civilian rulers have always governed with the apprehension that a coup might summarily remove them from office – as the constant tussle between Benazir Bhutto and Nawaz Sharif, each removed from office more than once to pave the way for the other, amply suggests. In Africa, democratic states have had at least as fragile an existence, and military dictatorships, despotisms, and authoritarian democracies have indisputably been the norm.

Word Count = 215

Time Taken =

- Q 1. What can be said about democracy in India?

- It is the epitome of freedom for all
- It's a mix of polarities
- It's superior to the other democracies
- It promotes tension among the masses

- Q 2. Why does the Indian democracy appear like an accomplishment?

- Other democracies have not fared well
- India is far superior because of its rich culture
- Indians are devoted to their country
- It is inherently strong

- Q 3. What is the meaning of **robustness** used in the passage?

- Status
- Significance
- Success
- Debacle

- Q 4. What should be the title of the passage?

- The achievement of the Indian Democracy
- The best democracy in the world
- Indian democracy – the best in South Asia
- Indian democracy – a relative success

## ➤ PASSAGE 7

**Start Time:****End Time:**

**Direction for questions 1 to 4:** Read the passage given below and solve the questions based on it.

Enunciated by Jung as an integral part of his psychology in 1916 immediately after his unsettling confrontation with the unconscious, the transcendent function was seen by Jung as uniting the opposites, transforming psyche, and central to the individuation process. It also undoubtedly reflects his personal experience in coming to terms with the unconscious. Jung portrayed the transcendent function as operating through symbol and fantasy and mediating between the opposites of consciousness and the unconscious to prompt the emergence of a new, third posture that transcends the two. In exploring the details of the transcendent function and its connection to other Jungian constructs, this work has unearthed significant changes, ambiguities, and inconsistencies in Jung's writings. Further, it has identified two separate images of the transcendent function: (1) the narrow transcendent function, the function or process within Jung's pantheon of psychic structures, generally seen as the uniting of the opposites of consciousness and the unconscious from which a new attitude emerges; and (2) the expansive transcendent function, the root metaphor for psyche or being psychological that subsumes Jung's pantheon and that apprehends the most fundamental psychic activity of interacting with the unknown or other. This book has also posited that the expansive transcendent function, as the root metaphor for exchanges between conscious and the unconscious, is the wellspring from whence, flows other key Jungian structures such as the archetypes and the Self, and is the core of the individuation process. The expansive transcendent function has been explored further by surveying other schools of psychology, with both depth and non-depth orientations, and evaluating the transcendent function alongside structures or processes in those other schools which play similar mediatory and/or transitional roles.

Word Count = 278

Time Taken =

Q 1. The above passage is most likely an excerpt from

- (a) a research note.
- (b) an entry on a psychopathology blog.
- (c) a popular magazine article.
- (d) a scholarly treatise.

Q 2. It can be definitely inferred from the passage above that

- (a) the expansive transcendent function would include elements of both the Consciousness and the Unconscious.
- (b) archetypes emerge from the narrow transcendent function.
- (c) the whole work, from which this excerpt is taken, primarily concerns itself with the inconsistencies in Jung's writings.
- (d) the transcendent is the core of the individuation process.

Q 3. A comparison similar to the distinction between the two images of the transcendent function would be:

- (a) raucous : hilarious
- (b) synchronicity : ontology
- (c) recession : withdrawal
- (d) None of these



- Q 4. As per the passage, the key Jungian structure – other than the Self – that emerges from the expansive transcendent function may NOT be expressed as a(n):
- Stereotype
  - Anomaly
  - Idealized model
  - Original pattern

## ➤ PASSAGE 8

**Start Time:**

**End Time:**

**Direction for questions 1 to 4:** Read the passage below and solve the questions based on it.

Can poor countries afford to be green? That is a question which politicians in the developing world have often asked pointedly. To them, it seems that the obsession of some rich type with preserving forests and saving cuddly animals like pandas or lemurs, while paying less attention to the human beings living nearby, is both cynical and hypocritical. There is of course plenty of evidence that greenery and growth are not polar opposite. After decades of expansion in China and other fast-emerging economies, some of the negative side-effects and their impact on human welfare, above all the death toll caused by foul air and water, are horribly clear. Yet the relationship between growth and the state of environment is far from simple. Some experts feel that poor countries have been quiet right to challenge the sort of green orthodox which rejects the very idea of economic growth. Indeed, the single biggest variable in determining the countries ranking is income per head. But that does not imply that economic growth automatically leads to an improvement in the environment. Growth does offer solutions to the sorts of environmental woes (local air pollution, for example) that directly kill humans. This matters, because about a quarter of all deaths in the world have some link to environmental factors. Most of the victims are poor people who are already vulnerable because of bad living conditions, lack of access to medicine, and malnutrition. Among the killers especially of children, in which the environment plays the role, are diarrhea, respiratory and infections and malaria. These diseases reinforce a vicious circle of poverty and hopelessness by depressing production. According to the world bank the economic burden on society caused by bad environmental health amounts to between 2% and 5% of GDP. As poor countries get richer, they usually invest heavily in environmental improvements, such as cleaning up water supplies and improving sanitation, that boost human health. But the link between growth and environmentally benign outcomes is, much less clear when it comes to the sort of pollution that fouls up nature (such as acid rain, which poisons lakes and forests) as opposed to directly killing human beings. The key to addressing that sort of pollution is not just money but good governance. Hence, the poor Dominican Republic is much healthier than nearby Haiti, Costa Rica is far ahead of Nicaragua, in spite of broadly similar nature and resources, and wealthy Belgium is the sick man of Western Europe, with an environmental record worse than that of many developing countries.

Word Count = 420

Time Taken =

- Q 1. The passage DOES NOT talk about
- the impact of environmental health no economic growth.
  - factors determining good governance.
  - the impact of economic growth on environment health.
  - environmental factors affecting child mortality.

### 3.28 ◇◇ Reading Comprehension



- Q 2. Which one of the following statements CANNOT be inferred from the passage?
- (a) Fast-emerging economies are responsible for polluting their environment.
  - (b) Bad environmental health affects a country's production.
  - (c) Environment can be protected only after economic prosperity has been achieved.
  - (d) The link between the state of the environment and human health is ambiguous.
- Q 3. The MOST APPROPRIATE title for the passage would be:
- (a) How Green is Their Growth?
  - (b) Green Orthodoxy
  - (c) Growth vs Greenery
  - (d) Global Warming
- Q 4. Which one of the following can be MOST APPROPRIATELY inferred from the passage?
- (a) Environmental health should be the single biggest variable in determining a country's ranking.
  - (b) Poor countries cannot afford to save forests or protect cuddly animals.
  - (c) Haiti, Nicargagua and Belgium are the most polluted countries in the world.
  - (d) Economic progress can help to ease environmental woes, as long as the governance is good.

### ➤ PASSAGE 9

**Start Time:**

**End Time:**

**Direction for questions 1 to 4:** Read the passage given below and solve the questions based on it.

The starting point for our discussion is the common view expressed in the saying “Necessity is the mother of invention.” That is, inventions supposedly arise when a society has an unfulfilled need. Would-be inventors, motivated by the prospect of money or fame, perceive the need and try to meet it. Some inventor finally comes up with a solution superior to an existing, unsatisfactory technology. Society adopts the solution if it is compatible with the society’s values and other technologies. Some inventions do conform to this commonsense view of necessity as inventions’ mother. Eli Whitney’s 1794 invention of a cotton gin to replace laborious hand cleaning of cotton, and James Watt’s 1769 invention of steam engine to solve the problem of pumping out water out of British coal mines were some such instances. These familiar examples deceive us into assuming that other major inventions were also responses to perceived needs. In fact, many or most inventions were developed by people driven by curiosity or by a love of tinkering, in the absence of any initial demand for the product they had in mind. Once a device had been invented, the inventor then had to find an application for it. Only after it had been in use for a considerable time did consumers come to feel that they needed it. Still other devices, invented to serve one purpose, eventually found most of their use for other, unanticipated purposes. Some inventions in search of an initial use included most of the major technological breakthroughs of modern times, including the airplane, the automobile, internal combustion engine, electric light bulb, the phonograph and transistor. Thus, invention is often the mother of necessity, rather than vice versa. For example, when Edison built his first phonograph in 1877, he published an article listing ten uses to which his invention might be put. Reproduction of music did not figure high on that list. Only after 20 years, did Edison reluctantly concede that the main use of his phonograph was to play and record music.



Again, when Nikolaus Otto built his first gas engine, in 1866, horses had been supplying people's land transportation needs for nearly 600 years, supplemented increasingly by steam-powered railroads, for several decades. There was no crisis in the availability of horses, no dissatisfaction with railroads. In 1896, Gottfried Daimler built the first truck. In 1905, motor vehicles were still expensive, unreliable toys for the rich. Public contentment with horses and railroads remained high until World War I, when the military concluded that it really did need trucks. Intensive postwar lobbying by truck manufacturers and armies finally convinced the public of its own needs and enabled trucks to begin to supplant horse drawn wagons in industrialized countries. Thus the commonsense view of invention that served as our starting point reverses the role of invention and need, and probably overstates the importance of rare geniuses such as Watt and Edison. That "heroic theory of Invention" is encouraged by patent law, because an applicant for a patent must prove the novelty of the invention submitted. Inventors thereby have a financial incentive to denigrate or ignore previous work. In truth, technology develops cumulatively, and through the inventions and improvements of many predecessors and successors; rather than in isolated heroic acts, and it finds most of its uses after it has been invented, rather than being invented to meet a foreseen need.

Word Count = 562

Time Taken =

Q 1. The MOST APPROPRIATE title for the passage would be:

- (a) Mother of Necessity
- (b) Inventors or Villains
- (c) The Heroic Theory of Invention
- (d) Inventions, not Necessities

Q 2. Which of the following statements is INCORRECT as per the given passage?

- (a) Patent laws facilitate unnecessary inventions.
- (b) Inventions give rise to needs in society.
- (c) Curiosity is the mother of invention.
- (d) The military helped to popularize the use of trucks.

Q 3. According to the passage:

- (a) airplanes and automobiles were invented out of curiosity.
- (b) curiosity and necessity are the main obstacles for invention.
- (c) the applications of an invention are often not apparent immediately.
- (d) society helps to fulfill an inventor's need for money and fame.

Q 4. The last sentence of the passage implies that

- (a) the author does not believe in the concept of "heroic inventions".
- (b) an invention does not always have to be in response to some perceived need.
- (c) isolated heroic acts do not give rise to inventions.
- (d) initial inventors are never recognized.

## ➤ PASSAGE 10

**Start Time:**

**End Time:**

**Direction for questions 1 to 4:** Read the passage given below and solve the questions based on it.

'Beliefs' soften the hardships, even can make them pleasant. In god, man can find very strong consolation and support. Without him, man has to depend upon himself. At testing moments, vanity, if any, evaporates and man cannot dare to defy the general beliefs; if he does, then we must conclude that he has got certain other strengths than mere vanity. This is exactly the situation now. Judgment is already too well known.

### 3.30 ✦✦ Reading Comprehension



Within a week it is to be pronounced. What is the consolation with the exception of the idea that I am going to sacrifice my life for a cause? A God-believing Hindu might be expecting to be reborn as a king, a Muslim or a Christian might dream of the luxuries to be enjoyed in paradise and the reward he is to get for his sufferings and sacrifices. But what am I to expect? I know the moment the rope is fitted round my neck and rafters removed, form under my feet: that will be the final moment, that will be the last moment. I, or to be more precise, my soul, as interpreted in the metaphysical terminology, shall all be finished there. Nothing further.

A short life of struggle with no such magnificent end shall in itself be the reward if I have the courage to take it in that light. That is all. With no selfish motive or desire to be awarded here or hereafter, quite disinterestedly have I devoted my life to the cause of independence, because I could not do otherwise. The day we find a great number of men and women with this psychology who cannot devote themselves to anything else than the service of mankind and emancipation of the suffering humanity-that day shall inaugurate the era of liberty.

Not to become a king nor to gain any other rewards here, or in the next birth or after dearth in paradise, shall they be inspired to challenge the oppressors, exploiters, and tyrants, but to cast off the yoke of serfdom from the neck of humanity and to establish liberty and peace shall they tread this-to their individual selves perilous and to their noble selves the only glorious imaginable path. Is the pride in their noble cause to be misinterpreted as vanity? Who dares to utter such an abominable epithet? To him, I say either he is a fool or a knave. Let us forgive him for he cannot realize the depth, the emotion the sentiment and the noble feelings that surge in that heart. His heart is dead as a mere lump of flesh, his eyes are weak, the evils of other interests having been cast over them. Self-reliance is always liable to be interpreted as vanity. It is sad and miserable but there is no help.

You go and oppose the prevailing faith, you go and criticize a hero, a great man, who is generally believed to be above criticism because he is thought to be infallible, the strength of your argument shall force the multitude to decry you as vainglorious. This is due to the mental stagnation: criticism and independent thinking are the two indispensable qualities of a revolutionary. Because Mahatmaji is great, therefore none should criticize him. Because he has risen above, therefore everything he says-may be in the field of politics or religion, economics or ethics-is right. Whether you are convinced or not you must say, "Yes. That's true". This mentality does not lead towards progress. It is rather too obviously, reactionary.

Word Count = 583

Time Taken =

Q 1. Which one of the following statements can be deduced from the above passage?

- (a) Individuals who neither believe in God nor in the infallibility of great men are arrogant.
- (b) Belief is convenient as it even makes a hard reality at present more bearable because of a promise of a better future.
- (c) Only some individuals are able to attain greatness and by following them uncritically the society can make significant progress.
- (d) If you do not believe in God, then you can never hope to achieve anything great in life.

Q 2. Which of the following statements BEST captures the essence of the passage?

- (a) When we criticize a great man like Mahatmaji, we are motivated by arrogance and a desire to question anything good through meaningless arguments.
- (b) All human beings ought to desist from believing anything in order to be able to achieve something meaningful.
- (c) The author is trying to present his defense for not believing in the existence of God, even though it is probably more convenient to do so, than going against the generally accepted norms of the society.



- (d) It is wrong to believe in God for achieving kingship or for rewards in this world, or for paradise after death, and instead, one should believe in God without expecting anything in return.

Q 3. The word ‘vainglorious’ as used in the passage is EXACTLY OPPOSITE in meaning to:

(a) truthful                  (b) proud  
(c) dishonest                (d) humble

Q 4. Which of the following statements is NOT TRUE as per the passage?

(a) Pride in a noble cause should not be interpreted as vanity.  
(b) Service to mankind is the ultimate path to freedom.  
(c) Criticizing heroes and great men can lead to progress.  
(d) The author is upset because he has nothing to expect in the afterlife.

## ➤ PASSAGE 11

**Start Time:**

## **End Time:**

**Direction for questions 1 to 6:** Read the passage below and solve the questions based on it.

The World Trade Organisation (WTO) was created in the early 1990s as a component of the Uruguay Round negotiation. However, it could have been negotiated as part of the Tokyo Round of the 1970s, since that negotiation was an attempt at a 'constitutional reform' of the General Agreement on Tariffs and Trade (GATT). Or it could have been put off to the future, as the US government wanted. What factors led to the creation of the WTO in the early 1990s?

One factor was the pattern of multilateral bargaining that developed late in the Uruguay Round. Like all complex international agreements, the WTO was a product of a series of trade-offs between principal actors and groups. For the United States, which did not want a new Organisation, the dispute settlement part of the WTO package achieved its longstanding goal of a more effective and more legal dispute settlement system. For the Europeans, who by the 1990s had come to view GATT dispute settlement less in political terms and more as a regime of legal obligations, the WTO package was acceptable as a means to discipline the resort to unilateral measures by the United States. Countries like Canada and other middle and smaller trading partners were attracted by the expansion of a rules based system and by the symbolic value of a trade Organisation, both of which inherently support the weak against the strong. The developing countries were attracted due to the provisions banning unilateral measures. Finally, and perhaps most important, many countries at the Uruguay Round came to put a higher priority on the export gains than on the import losses that the negotiation would produce, and they came to associate the WTO and a rules-based system with those gains. This reasoning—replicated in many countries—was contained in US Ambassador Kantor's defence of the WTO, and it amounted to a recognition that international trade and its benefits cannot be enjoyed unless trading nations accept the discipline of a negotiated rules-based environment.

A second factor in the creation of the WTO was pressure from lawyers and the legal process. The dispute settlement system of the WTO was seen as a victory of legalists over pragmatists but the matter went deeper than that. The GATT, and the WTO, are contract organizations based on rules, and it is inevitable that an organization created to further rules will in turn be influenced by the legal process. Robert Hudec has written of the ‘momentum of legal development’, but what is this precisely? Legal development can be defined as promotion of the The World Trade Organization (WTO) was created in the early 1990s as a component of the Uruguay Round negotiation. However, it could have been negotiated as part of the Tokyo Round of the 1970s, since that negotiation was an attempt at a ‘constitutional reform’

### 3.32 ◇◇ Reading Comprehension



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The momentum of legal development has occurred in other institutions besides the GATT, most notably in the European Union (EU). Over the past two decades the European Court of Justice (ECJ) has consistently rendered decisions that have expanded incrementally the EU's internal market, in which the doctrine of 'mutual recognition' handed down in the case *Cassis de Dijon* in 1979 was a key turning point. The Court is now widely recognised as a major player in European integration, even though arguably such a strong role was not originally envisaged in the Treaty of Rome, which initiated the current European Union. One means the Court used to expand integration was the 'teleological method of interpretation', whereby the actions of member states were evaluated against 'the accomplishment of the most elementary community goals set forth in the Preamble to the [Rome] treaty'. The teleological method represents an effort to keep current policies consistent with stated goals, and it is analogous to the effort in GATT to keep contracting party trade practices consistent with stated rules. In both cases legal concerns and procedures are an independent force for further cooperation.

In large part the WTO was an exercise in consolidation. In the context of a trade negotiation that created a near-revolutionary expansion of international trade



rules, the formation of the WTO was a deeply conservative act needed to ensure that the benefits of the new rules would not be lost. The WTO was all about institutional structure and dispute settlement: these are the concerns of conservatives and not revolutionaries, which is why lawyers and legalists took the lead on these issues. The WTO codified the GATT institutional practice that had developed by custom over three decades, and it incorporated a new dispute settlement system that was necessary to keep both old and new rules from becoming a sham. Both the international structure and the dispute settlement system were necessary to preserve and enhance the integrity of the multilateral trade regime that had been built incrementally from the 1940s to the 1990s.

Word Count = 1211

Time Taken =

**Q 1.** What could be the closest reason why the WTO was not formed in the 1970s?

- (a) The US government did not like it.
- (b) Important players did not find it in their best interest to do so.
- (c) Lawyers did not work for the dispute settlement system.
- (d) The Tokyo Round negotiation was an attempt at constitutional reform.

**Q 2.** The most likely reason for the acceptance of the WTO package by nations was that

- (a) it had the means to prevent the US from taking unilateral measures.
- (b) they recognized the need for a rule-based environment to protect the benefits of increased trade.
- (c) it settles disputes more legally and more effectively.
- (d) its rule-based system leads to export gains.

**Q 3.** According to the passage, WTO promoted the technical legal values partly through

- (a) integrating under one roof the agreements signed under GATT.
- (b) rules that create their own incentive for fulfilment.
- (c) grandfather-rights exceptions and defects in dispute settlement procedures.
- (d) ambiguities about the powers of contracting parties to make certain decisions.

**Q 4.** In the method of interpretation of the European Court of Justice,

- (a) current policies needed to be consistent with stated goals.
- (b) contracting party trade practices needed to be consistent with stated rules.
- (c) enunciation of the most elementary community goals needed to be emphasized.
- (d) actions of member states needed to be evaluated against the stated community goals.

**Q 5.** In the statement “...it amounted to a recognition that international trade and its benefits cannot be enjoyed unless trading nations accept the discipline of a negotiated rules-based environment.”, ‘it’ refers to:

- (a) Ambassador Kantor’s defence of the WTO.
- (b) The higher priority on export gains placed by many countries at the Uruguay Round.
- (c) The export gains many countries came to associate with a rule-based system.
- (d) The provision of a rule-based system by the WTO.

**Q 6.** The importance of Cassis de Dijon is that it

- (a) gave a new impetus to the momentum of legal development at the European Court of Justice.
- (b) resulted in a decision that expanded incrementally the EU’s internal market.
- (c) strengthened the role of the Court more than envisaged in the Treaty of Rome.
- (d) led to a doctrine that was a key turning point in European integration.

## ➤ PASSAGE 12

**Start Time:****End Time:**

**Direction for questions 1 to 4:** Read the passage below and solve the questions based on it.

It is being projected a boon for the agricultural sector. In reality, it will be the beginning of the end for Indian farmers. It has happened in the west. Ever since big retail – dominated by multi-brand retailers has entered the market, farmers have disappeared and poverty has increased. Today, not more than seven lakh farmers remain on the farms in the west. According to a report, ever minute one farmer quits agriculture. Farmers' incomes have come down by more than forty per cent. These days low supermarket prices are being cited as the reason for the **exodus** of dairy farmers too. It is therefore futile to expect the supermarkets rescuing farmers in India.

Despite the destruction of farming globally, administrators in India are gung-ho about allowing foreign direct investment in multi-brand retailing. "The agriculture sector needs well functioning markets to **drive** growth, employment and economic prosperity in rural areas," says a discussion paper.

Since 2006, India has allowed a partial opening up of the retail sector. Have these retail units benefited Indian farmers and the consumers? The answer is number the argument for setting up of big retail chains is that the supermarket chains will squeeze out the middlemen thereby providing higher prices to farmers and at the same time provide large investments for the development of post-harvest infrastructure. All these claims are untrue, and big retail has not helped farmers anywhere in the world.

If the supermarkets were so efficient, why is the west providing a massive subsidy for agriculture? After all, the world's biggest retail giants are based in the west and it should have helped their farmers become economically viable. But it did not happen. Till 1950, a farmer who would receive about seventy per cent of what was spent on food receives no more than, 3 to 4 per cent today. And that is why the farmers there are being supported in the form of direct income support by the government.

A report by the Organization for Economic Cooperation and Development (OECD), a group comprising the richest 30 countries in the world, states explicitly that arm subsidies rose by 22 per cent in 2008. In just 2009, industrialized countries provided a subsidy of Rs 1,260 billion. And it is primarily for this reason that farm incomes are lucrative. Take the Netherlands: the average farm family income in 275 per cent of the average household income. This is because of farm subsidies, not supermarkets India is therefore importing a failed model from the west especially when India is incapable of providing such heavy subsidies to its farmers.

Regarding employment, big tail does not squeeze out middlemen from the food chain. Supermarkets claim that they remove middlemen and therefore are able to provide a higher price to farmers. In reality what happens is the opposite. Supermarkets are themselves the big middlemen. They replace the small fish supermarkets replace the plethora of small middlemen. The muneem clad in a dhoti-kurta is replaced by a smartly dressed up middlemen. So while the farmer **pauperizes** the profit of supermarkets multiple.

Based on biased studies by consultancy firms and some institutes, it is believed that supermarkets will create employment and therefore help in ameliorating poverty. This is a flawed assumption. Lessons need to be drawn from a 2004 study done at Pennsylvanian State University. The authors measured the impact of a retail boom on poverty in various adjoining states. The comprehensive study clearly **brings out** that those American states that had more retail stores in 1987, had higher poverty rates by 1999 than the states where fewer stores were set up.

At stake is the livelihood security of 120 lakh small shopkeepers, 4 crores hawkers and at least 20 crores (of the 60 crores) small farmers. What is needed is



more public sector investment in setting up a chain of mandis across the country. Providing an assured market and reasonable procurement price is what Indian farmers need. This has to be supplemented by a network of food grain banks at panchayat level that assure local production and distribution.

Word Count = 674

Time Taken =

- Q 1. Why does the author disagree with the idea that big retail stores can salvage farmers condition in India?
- The farmers in India still prefer to sell their produce to local middlemen and mandis than to the big retail stores.
  - There have been examples throughout the world that the big retail chains further deteriorate the condition of the farmers.
  - Big retail chains buy the farmers produce at a much lower cost as compared to the present middlemen.
  - The government subsidies to the farmers selling their produce directly to big retail stores is far lesser than the ones who sell their produce to the government itself.
- Q 2. Which of the following is **true** in context of the passage?
- Noticing the state of farmers in the west owing to the advent of retail giants, Indian administrators are not too keen to allow multigrain retailing in India.
  - Supermarket chains have provided large investments for the development of post harvest infrastructure.
  - Supermarkets have indeed helped in making farming a lucrative business.
  - The retail chains have failed to benefit the farmers thus forcing the government to come to their rescue.
- Q 3. Which of the following have been the arguments for setting up big retail stores in India?
- The retail chains would sell the farmers produce at a comparatively higher price than the smaller shops so as to improve the farmer's profit.
  - The retail chains would drive the middlemen out of the system, thus improving farmer's profit margin.
  - Big retail chains in the west have been taking strides of growth and have been benefiting the farmers.
  - The big retail chains would provide an organized market which would bring about growth in the rural areas.
- Only A and C
  - Only C and D
  - Only A, C and D
  - Only B and D
- Q 4. Which of the following would be the most appropriate title for the given passage?
- Multi brand retailing – making farming more lucrative.
  - Supermarkets – towards employment and growth in rural areas.
  - Supermarket – a super risk for farmers.
  - Allowing Supermarkets in India – why are administrators unwilling?

### ➤ PASSAGE 13

**Start Time:**

**End Time:**

**Direction for questions 1 to 5:** Read the passage below and solve the questions based on it.

The modern world requires us to repose trust in many anonymous institutions. We strap ourselves in a flying tin can with two hundred other people not because we



know the pilot but because we believe that airline travel is safe. Our trust in these institutions depends on two factors: skill and ethics. We expect that the people who run these institutions know what they are doing. That they build and operate machines that work as they are supposed to and that they are looking out for our welfare even though we are strangers.

When one of these factors is weak or absent, trust breaks down and we either pay a high price in safety-as in the Bhopal tragedy-or a large welfare premium such as the elaborate security measures at airports. Trust-deficient environments work in the favour of the rich and powerful, who can command **premium** treatment and afford welfare premiums. Poor people can command neither; which is why air travel is safer than train travel, which in turn is safer than train travel, which in turn is safer than walking by the road side.

Every modern society depends on the trust in the skills and ethics of a variety of institutions such as schools and colleges, hospital and markets. If we stopped believing in the **expertise** of our teachers, doctors and engineers, we will stop being a modern society.

As the Institution among institutions, it is the duty of the state to ensure that all other institutions meet their ethical **obligations**. The Indian state has failed in its regulatory role schools to turn out good graduates, we out well trained engineers and we cannot guarantee that our engineers will turn out to be good products.

Last year, I was invited to speak at an undergraduate research conference. Most of the participants in this conference were students at the best engineering colleges in the State. One student who was driving me back and forth **recounted** a story about the previous year's final examination. One of his papers had a question from a leading text book to which the textbook's answer was wrong. The student was in a dilemma: should he write the (wrong) answer as given in the textbook or should he write the right answer using his own analytical skills. He decided to do the latter and received a zero on that question. Clearly, as the student had suspected, the examiners were looking at the textbook answer while correcting the examination papers instead of verifying its correctness.

The behaviour of these examiners is a breakdown of institutional morals, with consequences for the skills acquired by students. I say institutional morals, for the failure of these examiners is not a personal failure. At the same conference I met a whole range of college teachers, all of whom were drafted as examiners at some time or the other. Without exception, they were dedicated individuals who cared about the education and welfare of their students. However, when put in the institutional role of evaluating an anonymous individual, they fail in fulfilling their responsibilities. When some of our best colleges are run in this fashion, is it any wonder that we turn out **unskilled** engineers and scientists? It, as we are led to expect, there is a vast increase in education at all levels and the regulatory regime is as weak as it is currently is not it likely that the trust deficit is only going to increase?

We are all aware of the consequences of ignoring corruption at all jewels of society. While institutional failures in governance are obvious, I think the real problem lies deeper, in the failure of every day institutions that are quite apart from institutions that impinge on our lives only on rare occasions. It is true that our lives are made more **miserable** by government officials demanding bribes for all sorts of things, but what about the everyday lying and cheating and breaking of rules with people who are strangers?

Let me give you an example that many of us have experienced. I prefer buying my fruits and vegetables from roadside vendors rather than chain stores. To the vendor, I am probably an ideal customer, since I do not bargain and I do not take hours choosing the best pieces, instead, letting the vendor do the selecting. The market near my house is quite busy: as a result, most vendors are selling their wares to strangers. It takes a while before a particular vendor realizes that I am a **repeat** customer, in such a situation trust is crucial. I have a simple rule: if a vendor **palm**s off a bad piece whose defects are obvious, I never go back to that person again it is amazing how often that happens.



In my opinion, the failure of institutional ethics is as much about these little abuses of trust as anything else. Everyday thievery is like roadside trash: if you let it accumulate the whole neighbourhood stinks.

Word Count = 833

Time Taken =

Q 1. What is the meaning of the phrase **palms off** as used in the passage?

- (a) Steals from      (b) Hides away from
- (c) Buys quickly    (d) Passes on by deception

Q 2. Why according to the author do people repose trust in Institutions they do not know?

- (a) The marketing strategies adopted by these institutions make them trustworthy in the eyes of the public.
- (b) Many other people before them have done the same thing thus they feel safe.
- (c) People learn from the experiences of their richer counterparts who have availed of the services of these institutions.
- (d) They believe that these institutions have the requisite knowledge and will act only in favour of the general public.

Q 3. Which of the following is possibly the most appropriate title for the passage?

- (a) Modifications in Institutional Ethics.
- (b) Little Deceptions Add to Larger Trust-Deficit.
- (c) India-A Country Without Ethics.
- (d) Failure of the Government.

Q 4. What according to the author happens when there is a breakdown of trust?

- A. Less affluent people have to compromise on quality.
- B. Our wellbeing is compromised.
- C. We pay a higher prices for services.
- (a) Only A
- (b) Only A and C
- (c) Only B and C
- (d) All A, B and C

Q 5. Why according to the author, do institutional failures in governance not matter on a larger scale?

- (a) The general public does not care about the failures of these institutions as they do not feature in their lives at all.
- (b) Such institutional failures are almost non-existent and do not occur often to matter to the public.
- (c) These intrude in our lives only under exceptional circumstances whereas he everyday lies contribute to much more.
- (d) These are a part of every country's problems and are taken with a pinch of salt by the public.

## ➤ PASSAGE 14

**Start Time:**

**End Time:**

**Direction for questions 1 to 4:** Read the passage below and solve the questions based on it.

A pioneering new book, **Gender and Green Governance**. Explores a central question: if women had adequate representation in forestry institutions, would it make a difference to them, their communities, and forests as a national resource? Interview with the author.



### Why has access to forests been such a conflict-ridden issue?

This is not surprising. Forests constitute not just community and national wealth, but global wealth. But for millions, forests are also critical for livelihoods and their daily lives.

### Your first book, cold hearths and Barren Slopes (1986), was about forests. Is there an evolution of argument here?

Yes indeed: in cold Hearts and Barren Slopes. I had argued that social forestry, with its top down implementation and focus on commercial species, was neither social nor forestry, and would protect neither forests nor village livelihoods. The answer I argued, lay in allowing forests communities to manage local forests. Finally in 1990. India launched the joint forest management programme and Nepal also started community forestry. So I decided to see for myself how community forestry was actually doing.

Between 1995 and 1999, I traveled extensively across India and Nepal and found **paradox**: Forests were indeed becoming greener but women's problem of firewood shortages persisted and in many cases had become more **acute**. Also, despite their high stakes in forests, women continued to agree. I coined the term "participatory exclusions" to describe this. How women's exclusion. I ask: what if women were present in forest governance? What difference would that make?

### But has this question not been raised before?

Economists researching environmental collective action have paid little attention to gender. Scholars from other disciplines focusing on gender and governance have been concerned mainly with women's near absence from governance institutions. The presumption is that once women are present all good things will follow. But can we assume this? Not Rural women's relationship with forests is complex.

On the one hand, their everyday dependence on forests for firewood fodders. Etc, creates a strong stake in dependence can compel them to extract heavily from forests. As one landless woman told me: of course it hurts me to cut a **green** branch but what do I do if my children are hungry? Taking an agnostic position I decided to test varied propositions, **controlling** for other factors.

### What did you find?

First, women's greater presence enhances their effective voice in decision-making. And there is a critical mass effect: if forests management groups have 25–33 per cent female members in their executive committees it significantly increases the likelihood of women attending meetings, speaking up and holding office. However, the inclusion of landless women makes a particular difference. When present in sufficient numbers they are more likely to attend meetings and voice their concerns than landed women. So what matters is not just including more women, but more poor women.

Second, and unexpectedly, groups with more women typically make stricter forest use rules. Why is this case? Mainly because they receive poorer forests from the forest department. To regenerate these they have to sacrifice their immediate needs. Women from households with some land have some fallback. But remarkably even in groups with more landless women, although extraction is higher, they still balance self-interest with conservation goals, when placed in decision-making positions.

Third, groups with more women outperform other groups in improving forest conditions, despite getting poorer forests. Involving women substantially improves protection and conflict resolution. Helps the use of their knowledge of local biodiversity, and raises children's awareness about conservation.

Word Count = 581

Time Taken =



- Q 1. Which of the following is one of the reasons of forests being a conflict-ridden issue?
- Some countries have larger forest cover.
  - There is less awareness about global warming.
  - High dependence of many on forests.
  - Less representation of women.
- Q 2. In the second question, the interviewer asked – ‘Is there an evolution of argument here? Which of the following best describes that?
- From Barren to Greener slopes.
  - From local groups to local groups with more women.
  - A fine balance between conservation and commercial forestry.
  - Top-down approach to community forestry.
- Q 3. Why does author say, ‘Rural women’s relationship with forests is complex’?
- Dependence forces them to extract and also have concern for conservation.
  - If they protect forests, their livelihood is severely affected.
  - Poor women have been excluded from forest management.
  - They cannot be asked to restore forests which are critical for them.
- Q 4. Landless women, when in decision making role:
- Extract much more from forest.
  - Improve their own financial status.
  - Do not care for forest.
  - Are able to meet conservation objectives as well as their own interest.

## ➤ PASSAGE 15

**Start Time:**

**End Time:**

**Direction for questions 1 to 3:** *Read the passage below and solve the questions based on it.*

In the annals of investing, Warren Buffett stands alone. Starting from scratch, simply by picking stocks and companies for investment, Buffett amassed one of the epochal fortunes of the twentieth century. Over a period of four decades more than enough to iron out the effects of fortuitous rolls of the dice, Buffett outperformed the stock market, by a stunning margin and without taking undue risks or suffering a single losing year. Buffett did this in markets bullish and bearish and through economies fat and lean, from the Eisenhower years to Bill Clinton, from the 1950s to the 1990s, from saddle shoes and Vietnam to junk bonds and the information age. Over the broad sweep of post war America, as the major stock averages advanced by 11 per cent or so a year, Buffett racked up a compounded annual gain of 29.2 per cent. The uniqueness of this achievement is more significant in that it was the fruit of old-fashioned, long-term investing. Wall Street’s modern financiers got rich by exploiting their control of the public’s money: their essential trick was to take in and sell out the public at opportune moments. Buffett shunned this game, as well as the more venal excesses for which wall Street is deservedly famous. In effect, he rediscovered the art of pure capitalism, a cold-blooded sport, but a fair one. Buffett began his career, working out his study in Omaha in 1956. His grasp of simple verities gave rise to a drama that would recur throughout his life. Long before those pilgrimages to Omaha, long before Buffett had a record, he would stand in a corner at college parties, baby-faced and bright-eyed, holding forth on the universe as a dozen or two of his older, drunken fraternity brothers crowded around. A few years later, when these friends had metamorphosed into young associates starting out on Wall Street, the ritual was the same. Buffett, the youngest of the group, would plop himself in

### 3.40 ◇◇ Reading Comprehension

a big, broad club chair and expound on finance while the others sat at his feet. On Wall Street, his homespun manner made him a cult figure. Where finance was so forbiddingly complex, Buffett could explain it like a general-store clerk discussing the weather. He never forgot that underneath each stock and bond, no matter how arcane, there lay a tangible, ordinary business. Beneath the jargon of Wall Street, he seemed to unearth a street form small-town America. In such a complex age, what was stunning about Buffett was his applicability. Most of what Buffett did was imitable by the average person (this is why the multitudes flocked to Omaha). It is curious irony that as more Americans acquired an interest in investing, Wall Street became more complex and more forbidding than ever. Buffett was born in the midst of depression. The depression cast a long shadow on Americans, but the post war prosperity eclipsed it-Unlike the modern portfolio manager, whose mindset is that of a trader, Buffett risked his capital on the long term growth of a few select businesses. In this, he resembled the magnates of a previous age, such as J P Morgan Sr.

As Jack Newfield wrote of Robert Kennedy, Buffett was not a hero, only a hope; not a myth, only a man. Despite his broad wit, he was strangely stunted. When he went to Paris, his only reaction was that he had no interest in sight-seeing and that the food was better in Omaha. His talent sprang from his unrivaled independence of mind and ability to focus on his work and shut out the world, yet those same qualities exacted a toll. Once, when Buffett was visiting the publisher Katharine Graham on Martha's Vineyard, a friend remarked on the beauty of the sunset. Buffett replied that he had not focused on it, as though it were necessary for him to exert a deliberate act of concentration to "focus" on a sunset. Even at his California beachfront vacation home, Buffett would work every day for weeks and not go near the water. Like other prodigies, he paid a price. Having been raised in a home with more than its share of demons, he lived within an emotional fortress. The few people who shared his office had no knowledge of the inner man, even after decades. Even his children could scarcely recall a time when he broke through his surface calm and showed some feeling. Though part of him is a showman or preacher, he is essentially a private person. Peter Lynch, the mutual-fund wizard, visited Buffett in the 1980s and was struck by the tranquility in his inner sanctum. His archives, neatly alphabetized in metal filing cabinets, looked as files had in another era. He had no armies of traders, no rows of electronic screens, as Lynch did. Buffett had no price charts, no computer – only a newspaper clipping from 1929 and an antique ticker under a glass dome. The two of them paced the floor, recounting their storied histories, what they had bought, what they had sold. Where Lynch had kicked out his losers every few weeks, Buffett had owned mostly the same few stocks for years and years. Lynch felt a pang, as though he had traveled back in time. Buffett's one concession to modernity is a private jet. Otherwise, he derives little pleasure from spending his fabulous wealth. He has no art collection or snazzy car, and he has never lost his taste for hamburgers. He lives in a commonplace house on a tree-lined block, on the same street where he works. His consuming passion – and pleasure – is his work,

Word Count = 933

Time Taken =

Q 1. "Saddle shoes and Vietnam", as expressed in the passage, refers to:

- I. Denier cri and Vietnam war
  - II. Growth of leather footwear industry and Vietnam shoe controversy
  - III. Modern U.S. population and traditional expatriates
  - IV. Industrial revolution and Vietnam Olympics
  - V. Fashion and Politics
- (a) I and V      (b) II and IV  
(c) III and V      (d) II and III

Q 2. Identify the correct sequence:

- I. Depression → Eisenhower → Microsoft
- II. California → New York → Omaha





- III. J. P. Morgan → Buffett → Bill Gates  
 IV. Mutual funds → Hedge funds → Brokers  
 (a) I and II                   (b) I and III  
 (c) II and IV               (d) III and IV
- Q 3. Choose the most appropriate answer: according to the author, Warren Buffett was  
 I. Simple and outmoded  
 II. Against planned economy and technology  
 III. Deadpan  
 IV. Spiritually raw  
 (a) I and IV                   (b) II and IV  
 (c) III and IV               (d) I and III

## ➤ PASSAGE 16

**Start Time:**

**End Time:**

**Direction for questions 1 to 6:** *Read the passage given below and solve the questions based on it.*

There are a seemingly endless variety of laws, restrictions, customs and traditions that affect the practice of abortion around the world. Globally, abortion is probably the single most controversial issue in the whole area of women's rights and family matters. It is an issue that inflames women's right groups, religious institutions, and the self-proclaimed "guardians" of public morality. The growing worldwide belief is that the right to control one's fertility is a basic human right. This has resulted in a worldwide trend towards liberalization of abortion laws. Forty per cent of the world's population live in countries where induced abortion is permitted on request. An additional 25 per cent live in countries where it is allowed if the women's life would be endangered if she went to full term with her pregnancy. The estimate is that between 26 and 31 million legal abortions were performed in 1987. However, there were also between 10 and 22 million illegal abortions performed in that year.

Feminists have viewed the patriarchal control of women's bodies as one of the prime issues facing the contemporary women's movement. They observe that the definition and control of women's reproductive freedom have always been the province of men. Patriarchal religion, as manifest in Islamic fundamentalism "traditionalist Hindu practice, orthodox Judaism, and Roman Catholicism, has been an important historical contributory factor for this and continues to be an important presence in contemporary societies. In recent times, governments, usually controlled by men, have "given" women the right to contraceptive use and abortion access when their countries were perceived to have an overpopulation problem. When these countries are perceived to be underpopulated, that right has been absent. Until the nineteenth century, a woman's rights to an abortion followed English common law; it could only be legally challenged if there was a "quickening", when the first movements of the foetus could be felt. In 1800, drugs to induce abortions were widely advertised in local newspapers. By 1900, abortion was banned in every state except to save the life of the mother. The change was strongly influenced by the medical profession, which focussed its campaign ostensibly on health and safety issues for pregnant women and the sanctity of life. Its position was also a means of control of nonlicensed medical practitioners such as midwives and women healers who practiced abortion.

The anti-abortion campaign was also influenced by political considerations. The large influx of eastern and southern European immigrants with their large families was seen as a threat to the population balance of the future United States. Middle and Upper class Protestants were advocates of abortion as a form of birth control. By supporting abortion prohibitions the hope was that these Americans

### 3.42 ◇◇ Reading Comprehension



would have more children and thus prevent the tide of immigrant babies from overwhelming the demographic characteristics of Protestant America.

The anti-abortion legislative position remained in effect in the United States through the first sixty-five years of the twentieth century. In the early 1960s, even when it was widely known that the drug thalidomide taken during pregnancy to alleviate anxiety was shown to contribute to the formation of deformed “flipper-like” hands or legs of children, abortion was illegal in the United States. A second health tragedy was the severe outbreak of rubella during the same time period, which also resulted in major birth defects. These tragedies combined with a change of attitude towards a woman’s right to privacy lead a number of states to pass abortion-permitting legislation.

On one side of the controversy are those who call themselves “pro-life”. They view the foetus as a human life rather than as an unformed complex of cells; therefore, they hold to the belief that abortion is essentially murder of an unborn child. These groups cite both legal and religious reasons for their opposition to abortion. Pro-lifers point to the rise in legalized abortion figures and see this as morally intolerable. On the other side of the issue are those who call themselves “pro-choice”. They believe that women, not legislators or judges, should have the right to decide whether and under what circumstances they will bear children. Pro-choicers are of the opinion that laws will not prevent women from having abortions and cite the horror stories of the past when many women died at the hands of “backroom” abortionists and in desperate attempts to self-abort. They also observe that legalized abortion is especially important for rape victims and incest victims who became pregnant. They stress physical and mental health reasons why women should not have unwanted children.

To get a better understanding of the current abortion controversy, let us examine a very important work by Kristin Luker titled *Abortion and the Politics of Motherhood*. Luker argues that female pro-choice and pro-life activists hold different world views regarding gender, sex, and the meaning of parenthood. Moral positions on abortions are seen to be tied intimately to views on sexual behaviour, the care of children, family life, technology, and the importance of the individual. Luker identifies “pro-choice” women as educated, affluent, and liberal. Their contrasting counterparts, “pro-life” women, support traditional concepts of women as wives and mothers. It would be instructive to sketch out the differences in the world views of these two sets of women. Luker examines California, with its liberalized abortion law, as a case history. Public documents and newspaper accounts over a twenty-year period were analyzed and over 200 interviews were held with both pro-life and pro-choice activists.

Luker found that pro-life and pro-choice activists have intrinsically different views with respect to gender. Prolife women have a notion of public and private life. The proper place for men is in the public sphere of work; for women, it is the private sphere of the home. Men benefit through the nurturance of women; women benefit through the protection of men. Children are seen to be the ultimate beneficiaries of this arrangement by having the mother as a full-time loving parent and by having clear role models. Pro-choice advocates reject the view of separate spheres. They object to the notion of the home being the “women’s sphere”. Women’s reproductive and family roles are seen as potential barriers to full equality. Motherhood is seen as a voluntary, not a mandatory or “natural” role.

In summarizing her findings, Luker believes that women become activists in either of the two movements as the end result of lives that center around different conceptualizations of motherhood. Their beliefs and values are rooted to the concrete circumstances of their lives, their educations, incomes, occupations, and the different marital and family choices that they have made. They represent two different world views of women’s roles in contemporary society and as such the abortion issues represents the battleground for the justification of their respective views.

Word Count = 1121

Time Taken =



- Q 1. According to your understanding of the author's arguments which countries are more likely to allow abortion?
- India and China
  - Australia and Mongolia
  - Cannot be inferred from the passage
  - Both (a) and (b)
- Q 2. Which amongst these was **not** a reason for banning of abortions by 1900?
- Medical professionals stressing the health and safety of women.
  - Influx of eastern and southern European immigrants.
  - Control of unlicensed medical practitioners.
  - A tradition of matriarchal control.
- Q 3. A pro-life woman would advocate abortion if
- the mother of an unborn child is suicidal.
  - bearing a child conflicts with a woman's career prospects.
  - the mother becomes pregnant accidentally.
  - None of these
- Q 4. Pro-choice women object to the notion of the home being the "women's sphere" because they believe
- that the home is a "joint sphere" shared between men and women.
  - that reproduction is a matter of choice for women.
  - that men and women are equal.
  - Both (b) and (c)
- Q 5. Two health tragedies affecting U.S. society in the 1960s led to
- a change in attitude to women's right to privacy.
  - retaining the anti-abortion laws with some exceptions.
  - scrapping of anti-abortion laws.
  - strengthening of the pro-life lobby.
- Q 6. Historically, the pro-choice movement has got support from, among others:
- major patriarchal religions.
  - countries with low population density.
  - medical profession.
  - None of these

## ➤ PASSAGE 17

**Start Time:**

**End Time:**

**Direction for questions 1 to 6:** *Read the passage below and solve the questions based on it.*

Every conscious mental state has a qualitative character that we refer to as mood. We are always in a mood that is pleasurable or unpleasurable to some degree. It may be that bad moods relate to their being too positive reinforcement in a person's current life and too many punishments. In any case, moods are distinguished from emotions proper by not being tied to any specific object. But, this distinction is not watertight, in that emotions need not be directed at objects that are completely specific (we can be angry just at people generally) while there is always a sense of a mood having a general objective like the state of the world at large. Moods manifest themselves in positive or negative feelings that are tied to health, personality, or perceived quality of life. Moods can also relate to emotions proper, as in the aftermath of an emotional incident such as the failure to secure a loan. A mood on this basis is the mind's judgment on the recent past. For Goldie, emotion can bubble up and down within a mood, while an emotion can involve characteristics that are non-object specific. What is important for marketing is that moods colour outlook and bias judgements. Hence, the importance of consumer confidence surveys, as

### 3.44 ◇◇ Reading Comprehension



consumer confidence typically reflects national mood. There is mood – congruence when thoughts and actions fall inline with mood. As Goleman says, there is a “constant stream of feeling” that runs “in perfect to our steam of thought”. Mood congruence occurs because a positive mood evokes pleasant associations that lighten subsequent appraisals (thoughts) and actions, while a negative arouses pessimistic associations that influence future judgment and behaviour. When consumers are in a good mood, they are more optimistic about buying more confident in buying, and much more willing to tolerate things like waiting in line. On the other hand, being in a mood makes buying behaviour in the “right mood” by the use of music and friendly staff or, say, opens bakeries in shopping malls that delight the passer-by with the smell of fresh bread. Thayer views moods as a mixture of biological and psychological influences and, as such, a sort of clinical thermometer, reflecting all the internal and external events that influence us. For Thayer, the key components of mood are energy and tension in different combinations. A specific mixture of energy and tension, together with the thoughts they influence, produces moods.

He discusses four mood states:

- Calm-energy: he regards this as the optimal mood of feeling good.
- Calm-tiredness: he regards this as feeling a little tired without any stress, which can be pleasant.
- Tense-energy: involves a low level of anxiety suited to a fight-or-flight disposition.
- Tense-tiredness: is a mixture of fatigue and anxiety, which underlies the unpleasant feeling of depression. People generally can “feel down” or “feel good” as a result of happenings in the world around them. This represents the national mood. People feel elated when the national soccer team wins an international match or depressed when their team has lost. An elated mood of calm – energy is an optimistic mood, which is good for business. Consumers, as socially involved individuals, are deeply influenced by the prevailing social climate. Marketers recognize the phenomenon and talk about the national mood being, say for or against conspicuous consumption. Moods do change, though. Writing early in the nineteenth century, Toqueville describes an American elite embarrassed by the ostentation of material display; in the “Gilded Age”, sixty years later, many were only too eager to embrace a materialistic vulgarity. The problem lies in anticipating changes in national mood, since a change in mood affects everything from buying of equities to the buying of houses and washing machines. Thayer would argue that we should be interested in national events that are likely to produce a move toward a tense-tiredness state or toward a calm-energy state, since these are the polar extremes and are more likely to influence behaviour. Artists sensitive to national moods express the long-term changes. An example is the long-term emotional journey from Charles Dickens’s depiction of the death of little Nell to Oscar Wilde’s cruel flippancy about it. “One would have to have a heart of stone not to laugh at the death of little Nell”, which reflects the mood change from high Victorian sentimentality to the acerbic cynicism of the end of the century, as shown in writers like Thomas Hardy and artists like Aubrey Beardsley. Whenever the mind is not fully absorbed, consciousness is no longer focused and ordered. Under such conditions the mind falls into dwelling on the unpleasant, with a negative mood developing. Csikszentmihalyi argues that humans need to keep consciousness fully active is what influences a good deal of consumer behaviour. Sometimes it does not matter what we are shopping for – the point is to shop for anything, regardless, as consuming is one way to respond to the void in consciousness when there is nothing else to do.

Word Count = 834

Time Taken =



- Q 1. Which one of the following statements best summarizes the above passage?
- The passage highlights how moods affect nations.
  - The passage highlights the importance of moods and emotions in marketing.
  - The passage draws distinction between moods and emotions.
  - Some writers influenced national moods through their writings.
- Q 2. Which of the following is the closest to “conspicuous consumption” in the passage?
- Audible consumption.
  - Consumption driven by moods and emotions.
  - Socially responsible consumption.
  - Consumption of material items for impressing others.
- Q 3. What is “moods congruence”?
- When moods and emotions are synchronized.
  - When moods are synchronous with thoughts and actions.
  - When emotions are synchronous with actions and thoughts.
  - When moods are synchronous with thoughts but not with action.
- Q 4. Implication and Proposition are defined as follows:
- Implication:* a statement which follows from the given text. *Proposition:* a statement which forms a part of the given text. Consider the two statements below and decide whether they are implications or propositions.
- The marketers should understand and make use of moods and emotions in designing and selling products and services.
  - Consuming is nothing but way of filling the void in consciousness.
- Both statements are implications.
  - First is implication, second is proposition.
  - Both are propositions.
  - First is proposition, second is implication.
- Q 5. Which statements from the ones given below are correct?
- In general, emotions are object specific.
  - In general, moods are not object specific.
  - Moods and emotions are same.
  - As per Thayer, moods are a mix of biological and psychological influences.
- 1, 2, 3
  - 2, 3, 4
  - 2, 4, 3
  - 1, 2, 4
- Q 6. The statement “Moods provide energy for human actions” is \_\_\_\_\_.
- always right
  - always wrong
  - sometimes right
  - not derived from the passage

## ➤ PASSAGE 18

**Start Time:**

**End Time:**

**Direction for questions 1 to 3:** Read the passage below and solve the questions based on it.

Deborah Mayo is a philosopher of science who has attempted to capture the implications of the new experimentalism in a philosophically rigorous way. Mayo focuses on the detailed way in which claims are validated by experiment, and is concerned with identifying just what claims are borne out and how. A key idea underlying her treatment is that a claim can only be said to be supported by experiment if the various ways in which the claim could be as fault have been investigated and

### 3.46 ◇◇ Reading Comprehension

eliminated. A claim can only be said to be borne out by experiment, and a severe test of a claim, as usefully construed by Mayo, must be such that the claim would be unlikely to pass it if it were false. Her idea can be explained by some simple examples. Suppose Snell's law of refraction of light is tested by some very rough experiments in which very large margins of error are attributed to the measurements of angles of incidence and refraction, and suppose that the results are shown to be compatible with the law within those margins of error. Has the law been supported by experiments that have severely tested it? From Mayo's perspective the answer is "no" because, owing to the roughness of the measurements, the law of refraction would be quite likely to pass this test even if it were false and some other law differing not too much from Snell's law true. An exercise I carried out in my school-teaching days serves to drive this point home. My students had conducted some not very careful experiments to test Snell's law. I then presented them with some alternative laws of refraction that had been suggested in antiquity and mediaeval times, prior to the discovery of Snell's law, and invited the students to test them with the measurements they had used to test Snell's law; because of the wide margins of error they had attributed to their measurements, all of these alternative laws pass the test. This clearly brings out the point that the experiments in question did not constitute a severe test of Snell's law. The law would have passed the test even if it were false and one of the historical alternatives true.

Word Count = 371

Time Taken =

Q 1. Which of the following conclusion can be drawn from the passage?

- (a) Experimental data might support multiple theoretical explanations at the same time, hence, validity of theories needs to be tested further.
- (b) Precise measurement is a sufficient condition to ensure validity of conclusions resulting from an experiment.
- (c) Precise measurement is both a necessary and sufficient condition to ensure validity of conclusions resulting from an experiment.
- (d) Precise measurement along with experimenter's knowledge of the theory underpinning the experiment is sufficient to ensure the validity of conclusions drawn from experiments.

Q 2. As per Mayo's perspective, which of the following best defines the phrase "scientific explanation"?

- (a) One which is most detailed in its explanation of natural phenomena.
- (b) One which has been thoroughly tested by scientific experts.
- (c) One which survives examinations better than other explanations.
- (d) One which refutes other explanations convincingly.

Q 3. The author's use of Snell's law of refraction to illustrate Mayo's perspective can best said to be

- (a) contrived.      (b) premeditated.
- (c) superfluous.    (d) illustrative.

#### ➤ PASSAGE 19

**Start Time:**

**End Time:**

**Direction for questions 1 to 4:** Read the passage below and solve the questions based on it.

A recent World Bank research project assembled and analyzed 35 rounds of the National Sample Survey Organization household survey, covering a period from 1951 to 1993-94. These national household surveys are suitable for tracking the poor's living conditions since the consumption data that have been collected in these surveys are reasonably comparable.



The most recent (1993-94) household survey conducted by the National Sample Survey Organization and based on the poverty lines calculated by the World Bank, reveals that 36.7 per cent of India's rural population and 30.5 per cent of its city-dwellers lived in poverty—a national average of 35.0 per cent. What is important is that as average Indian living standards rose during the 40 years since 1951 and particularly after the mid-1970s, the poor did not get poorer.

The magnitude of decline in poverty of the last two decades is significant but not **dramatic**. While the decline of poverty since the early 1970s has been sizable (from an incidence of 56 per cent to 35 per cent in 1993-94), India's progress in fighting poverty has been modest when compared with some of its Asian neighbors. Between 1970 and 1993, for example, the proportion of Indonesia's population living in poverty dropped from 58 to 8 per cent, an annual decline of nearly 10 per cent.

As of 1993-94, India's poverty continues to be predominantly rural although rural poverty declined faster than urban poverty over 1951-88. Moreover, the decline in national poverty seems to have been driven mostly by the decline in rural poverty — not surprising given that 74 per cent of India's population lives in rural areas. Many studies suggest that the poor perceive themselves to be better off now than in previous decades. However, these studies also point to pockets of increasing impoverishment.

Word Count = 287

Time Taken =

- Q 1. Why did the World Bank research project use the data of National Sample Survey Organization?
- It was quite accurate
  - It was reliable
  - It was supported by the government
  - It was reasonably comparable
- Q 2. What can be deduced about the poverty scenario in India before 1950?
- The poor were getting poorer
  - The rich were getting richer
  - The rich became richer at the expense of the poor
  - The income gap was unbridgeable
- Q 3. What is the meaning of **dramatic** used in the second last paragraph?
- Unreasonably high
  - Abysmally low
  - Very high
  - Statistically insignificant
- Q 4. How does India's anti poverty campaign fare against some of its neighbors?
- It is a big failure
  - It is moderately successful
  - It is unprecedented
  - It is a grand success

## ➤ PASSAGE 20

**Start Time:**

**End Time:**

**Direction for questions 1 to 7:** Read the passage below and solve the questions based on it.

India is renowned for its diversity. Dissimilitude abounds in every sphere – from the physical elements of its land and people to the intangible workings of its beliefs and practices. Indeed, given this variety, India itself appears to be not a single entity but an amalgamation, a “constructs” arising from the conjoining of innumerable,

### 3.48 ◇◇ Reading Comprehension



discrete parts. Modern scholarship has, quite properly, tended to explore these elements in isolation. (In part, this trend represents the conscious reversal of the stance taken by an earlier generation of scholars whose work reified India into a monolithic entity – a critical element in the much maligned “Orientalist” enterprise.) Nonetheless, the representation of India as a singular “Whole” is not an entirely capricious enterprise; for India is an identifiable entity, united by – if not born out of – certain deep and pervasive structures. Thus, for example, the Hindu tradition has long maintained a body of mythology that weaves the disparate temples, gods, even geographic landscapes that exist throughout the subcontinent into a unified, albeit syncretic, whole. In the realm of thought, there is no more pervasive, unifying structure than *karma*. It is the “doctrine” or “law” that ties actions to results and creates a determinant link between an individual’s status in this life and his or her fate in future lives. Following what is considered to be its appearances in the Upanishads, the doctrine reaches into nearly every corner of Hindu thought. Indeed, its dominance is such in the Hindu world view that *karma* encompasses, at the same time, life-affirming and life-negating functions; for just as it defines the world in terms of the “positive” function of delineating a doctrine of rewards and punishments, so too it defines the world through its “negative” representation of action as an all but inescapable trap, an unremitting cycle of death and rebirth. Despite – or perhaps because of – *karma*’s ubiquity, the doctrine is not easily defined. Wendy Doniger O’Flaherty reports of a scholarly conference devoted to the study of *karma* that although the participants admitted to a general sense of the doctrine’s parameters, considerable time was in a “lively but ultimately vain attempt to define ... karma and rebirth”. The base meaning of the term “*karma*” (or, more precisely, in its Sanskrit stem form, *karman* a neuter substantive) is “action”. As a doctrine, *karma* encompasses a number of quasi-independent concepts: rebirth (*punarjanam*), consequence (*phala*, literally “fruit,” a term that suggests the “ripening” of actions into consequences), and the valuation or “ethic-ization” of acts, qualifying them as either “good” (*punya* or *sukarman*) or “bad” (*papam* or *duskarman*). In a general way, however, for at least the past two thousand years, the following (from the well known text, the *Bhagavata Parana*) has held true as representing the principal elements of the *karma* doctrine: “The same person enjoys the fruit of the same sinful or a meritorious act in the next world in the same manner and to the same extent according to the manner and extent, to which that (sinful or meritorious) act has been done by him in this world.” Nevertheless, depending on the doctrine’s context, which itself ranges from its appearance in a vast number of literary sources to its usage on the popular level, not all these elements may be present (though in a general way they may be implicit).

Word Count = 553

Time Taken =

Q 1. The orientalist perspective, according to the author:

- (a) Viewed India as a country of diversity.
- (b) Viewed India as if it was a single and unitary entity devoid of diversity.
- (c) Viewed India both as single and diverse entity.
- (d) Viewed India as land of karma.

Q 2. “Reify” in the passage means:

- (a) To make real out of abstract
- (b) Reversal of stance
- (c) Unitary whole
- (d) Diversity

Q 3. “Ethic-ization” in the passage means:

- (a) Process of making something ethical
- (b) Converting unethical persons into ethical
- (c) Judging and evaluation
- (d) Teaching ethics



Q 4. Consider the following statements:

1. Meaning of karma is contextual.
2. Meaning of karma is not unanimous.
3. Meaning of karma includes many other quasi-independent concepts.
4. Karma also means actions and their rewards.

Which of the statements are true?

- (a) 1, 2, 3      (b) 2, 3, 4  
 (c) 1, 3, 4      (d) All the four are true

Q 5. The base meaning of karma is

- (a) reward and punishment.  
 (b) only those actions which yield a “phala”.  
 (c) any action.  
 (d) ripening of actions into consequences.

Q 6. As per the author, which of the following statements is wrong?

- (a) India is a diverse country.  
 (b) Doctrine of karma runs across divergent Hindu thoughts.  
 (c) Doctrine of karma has a rich scholarly discourse.  
 (d) Scholars could not resolve the meaning of karma.

Q 7. Which of the following, if true, would be required for the concept of karma – as defined in Bhagavata Purana – to be made equally valid across different space-time combinations?

- (a) Karma is judged based on the observers’ perception, and hence, the observer is a necessary condition for its validity.  
 (b) Karma is an orientalist concept limited to oriental countries.  
 (c) Each epoch will have its own understanding of karma and therefore there cannot be uniform validity of the concept of karma.  
 (d) The information of the past actions and the righteousness of each action would be embodied in the individual.

## ➤ PASSAGE 21

**Start Time:**

**End Time:**

**Direction for questions 1 to 4:** *Read the passage below and solve the questions based on it.*

The University Grants Commission’s directive to college and university lecturers to spend a minimum of 22 hours a week in direct teaching is the product of budgetary cutbacks rather than pedagogic wisdom. It may seem odd, at first blush, that teachers should protest about teaching a mere 22 hours. However, if one considers the amount of time academics require to prepare lectures of good quality as well as the time they need to spend doing research, it is clear that most conscientious teachers work more than 40 hours a week. In university systems around the world, lecturers rarely spend more than 12 to 15 hours in direct teaching activities a week. The average college lecturer in India does not have any office space. If computers are available, internet connectivity is unlikely. Libraries are poorly stocked. Now the UGC says universities must implement a complete **freeze** on all permanent recruitment, abolish all posts which have been vacant for more than a year, and cut staff strength by 10 per cent. And it is in order to ensure that these cutbacks do not affect the quantum of teaching that existing lecturers are being asked to work longer. Obviously, the quality of teaching and academic work in general will decline. While it is true that some college teachers do not take their classes regularly, the UGC and the Institutions concerned must find a proper way to hold them accountable. An absentee teacher will continue to play truant even if the number of hours he is required to teach goes up.

### 3.50 ✦✦ Reading Comprehension

All of us are well aware of the unsound state that the Indian higher education system is in today. Thanks to years of **sustained** financial neglect, most Indian universities and colleges do no research worth the name. Even as the number of students entering colleges has increased dramatically, public investment in higher education has actually declined in relative terms. Between 1985 and 1997, when public expenditure on higher education as a percentage of outlays on all levels of education grew by more than 60 per cent in Malaysia and 20 per cent in Thailand, India showed a decline of more than 10 per cent. Throughout the world, the number of teachers in higher education per million populations grew by more than 10 per cent. In the same period in India it fell by one per cent. Instead of transferring the burden of government apathy on to the backs of the teachers, the UGC should insist that the needs of the country's university system are adequately catered for.

Word Count = 424

Time Taken =

- Q 1. Which of the following is the reason for the sorry state of affairs of the Indian Universities as mentioned in the passage?
- (a) The poor quality of teachers
  - (b) Involvement of teachers in extracurricular activities
  - (c) Politics within and outside the departments
  - (d) Not getting enough financial assistance
- Q 2. Which of the following statements/is/are **TRUE** in the context of the passage?
- A. Most colleges do not carry out research worth the name.
  - B. UGC wants lecturers to spend minimum 22 hours a week in direct teaching.
  - C. Indian higher education system is in unsound state.
- (a) Only A and C
  - (b) All A, B and C
  - (c) Only C
  - (d) Only B
- Q 3. Besides direct teaching, University teachers spend considerable time in/on .....
- (a) administrative activities such as admissions.
  - (b) supervising examinations and correction of answer papers.
  - (c) carrying out research in the area of their interest.
  - (d) maintaining research equipment and libraries.
- Q 4. What is the UGC directive to the universities?
- (a) Improve the quality of teaching.
  - (b) Spend time on research activities.
  - (c) Do not appoint any permanent teacher.
  - (d) Provide computer and internet facilities.



#### ➤ PASSAGE 22

**Start Time:**

**End Time:**

**Direction for questions 1 to 4:** Read the passage below and solve the questions based on it.

At one time it would have been impossible to imagine the integration of different religious thoughts, ideas and ideals. That is because of the closed society, the lack of any communication or interdependence on other nations. People were happy and content amongst themselves; they did not need any more. The physical distance and cultural barriers prevented any exchange of thought and beliefs. But such is not the case today. Today, the world has become a much smaller place, thanks to the adventures and miracles of science. Foreign nations have become our next-door



neighbours. Mingling of population is bringing about an interchange of thought. We are slowly realizing that the world is a single cooperative group. Other religions have become forces with which we have to reckon and we are seeking for ways and means by which we can live together in peace and harmony. We cannot have religious unity and peace so long as we assert that we are in possession of the light and all others are groping in the darkness. That very assertion is a challenge to a fight. The political ideal of the world is not so much a single empire with a homogeneous, civilization and single communal will a brotherhood of free nations differing **profoundly** in life and mind, habits and institutions, existing side by side in peace and order, harmony and cooperation and each contributing to the world its own unique and specific best, which is irreducible to the terms of the others.

The cosmopolitanism of the eighteenth century and the nationalism of the nineteenth are combined in our ideal of a world commonwealth, which allows every branch of the human family to find freedom, security and self-realisation in the larger life of making. I see no hope for the religious future of the world, if this ideal is not extended to the religious sphere also. When two or three different systems claim that they contain the revelation of the very core and center of truth and the acceptance of it is the exclusive pathway to heaven, conflicts are inevitable. In such conflicts one religion will not allow others to steal a march over it and no one can gain ascendancy until the world is reduced to dust and ashes. To obliterate every other religion than one's is a sort of Bolshevism in religion which we must try to prevent. We can do so only if we accept something like the Indian solution, which seeks the unity of religion not in a common creed but in a common quest. Let us believe in a unity of spirit and not of organization, a unity which secures ample liberty not only for every individual but for every type of organized life which has proved itself effective.

For almost all historical forms of life and thought can claim the sanction of experience and so the authority of God. The world would be a much poorer thing if one creed absorbed the rest. God wills a rich harmony and not a colourless uniformity. The comprehensive and synthetic spirit of Indianism had made it a mighty forest with a thousand waving arms each fulfilling its function and all directed by the spirit of God. Each thing in its place and all associated in the divine concert making with their various voices and even dissonance, as Heraclites would say, the most exquisite harmony should be our ideal.

Word Count = 566

Time Taken =

- Q 1. According to the passage, religious unity and peace can be obtained if  
(a) we believe that the world is a single co-operative group.  
(b) we do not assert that we alone are in possession of the real knowledge.  
(c) we believe in a unity of spirit and not of organization.  
(d) we believe that truth does matter and will prevail.

Q 2. Which of the following according to the passage is the Indian solution?  
(a) Belief                   (b) Organization  
(c) Creed                   (d) Search

Q 3. According to the passage, the political ideal of the contemporary world is to  
(a) create a single empire with a homogeneous civilization.  
(b) foster the unity of all the religions of the world.  
(c) create a world common wealth preserving religious diversity of all the nations.  
(d) None of these

Q 4. According to the passage, the world would be a much poorer thing if  
(a) one religion swallows all other religions.  
(b) one religion accepts the supremacy of other religions.  
(c) religions adopt toleration as a principle of spiritual life.  
(d) we do not achieve the ideal of brotherhood of free nations.

## ➤ PASSAGE 23



Start Time:

End Time:

**Direction for questions 1 to 5: Read the passage below and solve the questions based on it.**

The debt swap scheme is one among the various market-based debt restructuring measures available to provide debt relief without hampering the interest of the creditor. The basic notion of debt swap/conversion is relatively simple. The principle is that instead of continuing to make interest payments on outstanding loans contracted in past at a very high rate, the debtor is able to find some other means of settling the debt which is satisfactory to both the debtor and creditor. The debt swap can be of various types, the most prominent being the debt-equity swaps, or debt-to-debt swaps. Debt-equity swaps are exchange of bonds or bank loans for ownership right to equity. Such debt-equity swaps have formed part of private corporations restructuring process for some time.

The debt swap whether internal or external has an **array** of macroeconomic **effects**. It is to be noted that in any debt swap scheme, the debtor must surrender an asset in return for having a liability extinguished. For example, in case of debt-equity swap, debt is exchanged by a claim on capital stock owned by the debtor. In the case of external debt, if the government **retires** external debt by issuing domestic bonds, in a balanced budget there are no real effects beyond those created by the initial wealth effect: the economy will display a current account surplus, accompanied by an initial appreciation of parallel exchange rate and a high real interest rate. These effects are independent of the discounts received by the government.

The practice of debt-equity swap or debt-to-debt swap particularly in the context of external debt has given rise to active controversy. The debate covers wide-ranging issues such as welfare characteristics of such swaps, their potential for reducing net capital flows, and the degree to which swap can reduce the negative incentive effects of debt overhang. Attention has also been paid on the effect of debt swap on the secondary market prices of debt. In the case of external debt, Mexico and Brazil suspended the debt conversion programme, because they can be inflationary as they put **excessive** pressure on the free market for foreign exchange or because swapping of foreign debt with domestic debt can be expensive.

If the debt is swapped through money financing, it leads to an expansion of money supply. If the government can run **sustained** deficits, the fiscal side provides a key link through which swaps can create macroeconomic disequilibrium. In a deficit situation, if the supply of bond is increased to swap the debt, and if the discounts obtained by the government due to interest rate differential are not large enough to cover the deficit, government will have to issue fresh bonds, which in turn may push up the interest rate. Finally, if the government continues to run a fiscal deficit and to avoid inflationary effects if it relies mostly on debt for bonds swapped and if this in turn leads to an accumulation of domestic debt, which the public expects will eventually be monetized, the domestic rate of inflation will immediately begin to rise.

In the case of the debt swap scheme between central and state governments in India, states can restructure their debt by pre-payment of high cost central debt with additional market borrowing at a lower rate of interest. Essentially, this should result in the reduction in the average cost of debt of the State Government. However, that would largely depend on the volume of savings in the interest cost in relation to the outstanding debt stock available for swapping. Despite the savings in interest cost due to debt swap, if a large gap is to be filled by additional borrowing, there is a possibility that swap-induced additional market borrowing may put pressure on the interest rate. Also, in an extreme case, continuous financing of swappable debt through bond financing may fuel inflation if the **holder** of the bond expects that debt will eventually be monetized. It is evident from this



discussion that aggressive debt restructuring proposed to reap the benefit of low interest rate regime at times may itself become the cause of hardening of future interest rates.

Word Count = 684

Time Taken =

- Q 1. Which of the following measures had been adopted by private Corporations in restructuring process?
- Exchange of bonds for ownership rights with share holders.
  - Providing debt relief to bond holders without raising the interest rate.
  - Settling the debt in exchange of reserves.
  - Borrowing from banks by mortgaging equity shares.
- Q 2. Which of the following is the recommendation of the author to stabilize the interest rates?
- State Government should stop borrowing from Central Government.
  - The debt restructuring should be done at bare minimum level.
  - The foreign debts should be swapped immediately
  - The debt-equality swap should be banned.
- Q 3. Which factors complied Latin American countries to keep in abeyance the debt swap programme?
- The welfare characteristics of the programme were unfavorable.
  - The conversion with foreign debts was perceived to be expensive.
  - Net capital flow started increasing.
  - Positive incentive effects of debt started decreasing.
- Q 4. What will happen if government decides to issue fresh bonds in a deficit situation?
- The microeconomic equilibrium will shift to negative side.
  - The price of initial bonds will decrease.
  - This step will mess up the economy completely.
  - The interest rates will start increasing.
- Q 5. Which factors may raise the inflation rate on domestic side?
- If accumulated internal debts start getting monetized.
  - If interest rates start reducing for public borrowings.
  - If debt swap is done through his sue of bonds in a deficit situation.
- Only A
  - Only B
  - Only A and B
  - Either A and C

## ➤ PASSAGE 24

**Start Time:**

**End Time:**

**Direction for questions 1 to 4:** Read the passage below and solve the questions based on it.

For more than three years, Anna Feng did not tell her husband that she had sunk nearly half of their savings into the Shanghai stock market. While he thought all their money was safely sitting in a bank, the value of the stocks **plunged** by almost 75%. But over the past couple of months, the Shanghai market has shown signs of life, and Feng, a 56-year old retiree, has recouped half her losses. She is quietly hopeful that maybe she will make it quietly hopeful that maybe she will make it all back. "Everyone seems to be so optimistic about the markets now," she says.

Around the world, stocks have been on a tear. In Asia, for example, the Tokyo TOPIX stock index hit a 14-year high last week as a bull run in once-dormant Japan gathered momentum; Mumbai's main equity index hit an all-time high in trading early Friday amid India's continuing economic boom; and Hong Kong shares reached a five year high while indices in Singapore, Jakarta and Sydney set new records. And

### 3.54 ◇◇ Reading Comprehension



though stock in Asia, in particular, are on fire, they are not alone. From Germany to Venezuela to South Africa, equity markets in both mature and emerging markets have moved up sharply this year and show little sign of slowing.

The underpinning of stocks strong performance, global bulls say, is straight forward. Economic growth continues to be strong in places where it has been buoyant for several years (the U.S., China and India) and is finally picking up in places where it had been notably absent-Japan and parts of “old” Europe. Moreover, earning and corporate balance sheets around the world as healthy as they have been in years. In Japan, corporate profits have climbed for four straight years and consumer spending is rising briskly on the back of declining unemployment. Economists say that Japan is now in a golden cycle. So, for now, is much of the world. “it comes down to very simple macroeconomics.” Says Subir Gokam, an economist at CRISIL, India’s largest credit rating firm, “the global economy is growing without much inflationary pressure.”

Is anything wrong with this picture?

One very big thing. Warn the **skeptics**. Interest rates are rising nearly everywhere, and if there is one simple adage that many investment advisers live by, it's this “when rates are high, stocks will die.” Indeed, one of the most impressive—or scariest-aspects of the current global bull run is that it has come in the teeth of central-bank tightening. Most importantly by the U.S. Federal Reserve, which could slow growth in the world’s key economic locomotives. The Fed has increased key short-term interest rate the so-called Fed funds rate-15 times dating back to June 2004, and is widely expected to raise it once or twice more over the next few months. A brief recession and the Sept. 11 terrorist attacks in 2001 **spurred** a prolonged period of very low interest rates. That **boosted** U.S. consumption-in particular the rate-sensitive housing market-and kept the global economy humming. But long-term rates are now beginning to tick upward: last week the U.S 30-year treasury bond reached 5.04% – it’s highest level since late 2004, and the housing market is cooling off-potentially triggering an economic slow-down as homeowners cut their spending.

Word Count = 540

Time Taken =

Q 1. According to the passage, what makes people hopeful about the markets?

- (a) The descent in the value of stocks
- (b) The trend of substantial increase in value of stocks
- (c) Safety provided by banks to their deposits
- (d) Optimism of the stock market players

Q 2. Which of the following is TRUE about the comparison between market indices of Mumbai and Hong Kong on the one hand and Singapore, Jakarta and Sydney on the other?

- (a) The indices in the former case are increasing while those in the latter are decreasing.
- (b) There is no remarkable trend visible between the two sets of indices.
- (c) Indices in both the groups of exercises are stable over a period of last five years.
- (d) The markets in both the groups of countries have shown upward trend.

Q 3. In what way did the terrorist attack in the US influence the markets?

- (a) It led to a brief recession
- (b) It increased long term need for housing
- (c) It helped increase the interest rates on housing
- (d) It prolonged the low interest rate regime

Q 4. Which of the following is/are the reason(s) for the statement that ‘Japan is now in golden cycle’?

- A. It is an economic growth without much inflationary pressure.
- B. Japan witnessed a substantial increase in corporate profits for the last four years.






➤ **PASSAGE 25**

**Start Time:**

## **End Time:**

**Direction for questions 1 to 3:** Read the passage below and solve the questions based on it.

**Political ploys** initially hailed as master-strokes often end up as flops. The Rs 60,000 crores farm loan waiver announced in the budget writes off 100% of overdues of small and marginal farmers holding up to two hectares, and 25% of overdues of larger farmers. While India has enjoyed 8%-9% GDP growth for the past few years, the boom has bypassed many rural areas and farmer distress and suicides have made newspaper headlines. Various attempts to provide relief (employment guarantee scheme, Public distribution system) have made little impact, thanks to huge leakages from the government's lousy delivery systems. So, many economists think the loan waiver is a worthwhile alternative to provide relief.

However, the poorest rural folk are landless labourers, who get neither farm loans nor waivers. Half of the small and marginal farmers get no loans from banks and depend entirely on moneylenders and will not benefit. Besides, rural India is full of the family holdings rather than individual holdings and family holding will typically be much larger than two hectares even for dirt-poor farmers, who will, therefore, be denied the 100% waiver. It will, thus, fail in both economic and political objectives. IRDP loans to the rural poor in the 1980s demonstrated that crooked bank officials demand bribes amounting to one-third the intended benefits. Very few of the intended beneficiaries who **merited** relief received it. After the last farm loan waiver will similarly, slow down fresh loans to deserving farmers. While overdues to co-operatives may be higher, economist Surjit Bhalla says less than 5% of farmer loans to banks are overdue, i.e., overdues exist for only 2.25 million out of 90 million farmers. If so, then the 95% who have repaid loans will not benefit. They will be angry at being penalized for honesty.

The budget thus grossly overestimates the number of beneficiaries. It also underestimates the negative effects of the waiver-encouraging wilful default in the future and discouraging fresh bank lending for some years. Instead of trying to reach the needy, through a **plethora** of leaky schemes we should transfer cash directly to the needy using new technology like biometric smart cards, which are now being used in many countries and mobile phones bank accounts. Then benefits can go directly to phone accounts operable only by those with biometric cards, ending the massive leakages of current schemes.

The political benefits of the loan waiver have also been exaggerated since if only and many of these have to pay bribes to get the actual benefit, will the waiver really be a massive vote-winner? Members of joint families will feel **aggrieved** that, despite having less than one hectare per head, their family holding is too large to qualify for the 100% waiver. All finance ministers, of central or State Governments give away freebies in their last budgets hoping to win electoral regards. Yet, four-fifth of all **incumbent** governments is voted out. This shows that beneficiaries of favours are not notably grateful, while those not so favored may feel aggrieved and vote for the opposition. That seems to be why election budgets constantly fail to win elections in India and the loan waiver will not change that pattern.

Word Count = 528

Time Taken =

### 3.56 ✦✦ Reading Comprehension



- Q 1. What message will the loan waiver send to farmers who have repaid loans?
- (a) The Government will readily provide them with loans in the future.
  - (b) As opposed to money lenders banks are a safer and more reliable source of credit.
  - (c) Honesty is the best policy.
  - (d) They will be angry at being penalized for honesty.
- Q 2. What are the terms of the loan waiver?
- A. One-fourth of the overdue loans of landless labourers will be written off.
  - B. The Rs 60,000 crores loan waiver has been sanctioned for 2.25 million marginal farmers.
  - C. Any farmer with between 26 per cent to 100 per cent of their loan repayments overdue will be penalized.
- (a) Only A
  - (b) Only B
  - (c) Both B and C
  - (d) All A, B and C
- Q 3. What is the author's view of the loan waiver?
- (a) It will have an adverse psychological impact on those who cannot avail the waiver.
  - (b) It is a justified measure in view of the high suicide rate among landless labourers.
  - (c) It makes sound economic and political sense in the existing scenario.
  - (d) It will ensure that the benefits of India's high GDP are felt by the rural poor.

#### ➤ PASSAGE 26

**Start Time:**

**End Time:**

**Direction for questions 1 to 5:** Read the passage below and solve the questions based on it.

Giving loans to impoverished women to make ceramics or to farmers to buy milk cows were not seen as great business. Microfinance was an industry championed by antipoverty activists. Today it is on the **verge** of a revolution, with billions of dollars from big banks, private-equity shops and pension funds pouring in, driving growth of 30% to 40% this year alone. In 1998, a non-profit microfinance organization in Peru, converted into bank (called Mibanco). This demonstrated that the poor are good risks who repay loans on time and getting them together, not only chips away at poverty but also turns a profit. The success of Mibanco has **piqued** the interest of commercial banks, which has previously shunned the country's poor. Now big banks are going after Mibanco's clients with low-rate loans and realizing it takes special know – how to work with the unbanked – are hiring away Mibanco's staff.

But with the emergence of players who are only out for profit, microfinance schemes cold end up milking the poor. This could happen in countries where lenders do not have to disclose interest rates. When a Mexican microfinancier went public, revealing its loans had rates of about 86% annually; the Consultative Group to Assist the Poor (CGAP) criticized it for putting shareholders ahead of clients. The pressure of turn a profit also forces microfinance's to change their business models in ways that **depart** from the industry's core mission: to help poor people lead better lives. Such shifts have caused the average loan size to triple. Moreover smaller loans being costlier to service, a lower percentage of loans go to women because, according to CGAP, with the flood of new large entities there is the risk that a large percentage of crossborder funds go to Latin America and Eastern Europe, the world's most developed microfinance markets. "The poorest of the world's poor who



are predominantly in Asia and Africa get left out," says the CEO of the nonprofit Grameen Foundation, which helps develop microfinance institutions.

Segmenting the industry, might be worthwhile if it allows more of the poor to get access to credit. Multinational corporations could take the top microfinance institutions to the next level and the remainder could be the responsibility of development groups and regional banks. Yet making loans to poor people is hardly a poverty cure. Property rights and the rule of law matter too. One cannot over idealize what microfinance alone can do. Most nonprofits started with lending simply because local laws prohibited nonbank from offering deposit accounts. With an increase in competition and marketing efforts, poverty alleviation experts are concerned that people will be talked into loans they would not otherwise want, for example organizations like Mibanco are providing consumer loans. There is nothing wrong with buying TVs and microwaves on credit, but certain markets, like Mexico, have been flooded with loans that have nothing to do with providing capital to **aspiring** entrepreneurs – just increasing household debt.

Word Count = 487

Time Taken =

- Q 1. What does the transformation of Peru's non-profit organization into bank illustrate?

  - A. To compete with commercial banks, microfinance institutions should convert into banks and offer a wide variety of services.
  - B. Microfinance institutions turn higher profits as banks since interest rates on loans are at their discretion.
  - C. The poor prefer to go to large banks rather than NGOs to obtain loans.
    - (a) None
    - (b) Both A and B
    - (c) All A, B and C
    - (d) Only A

Q 2. Why did most microfinance institutions initially provide only credit services?

  - (a) They were unable to compete with the interest rates offered on deposits by commercial banks.
  - (b) They have to operate purely on a non-profit basis.
  - (c) Government restrictions prevented them from offering additional services.
  - (d) To ensure the poor have access to modern necessities like microwaves.

Q 3. What is CGAP's fear with respect to new entities providing microfinance?

  - (a) NGO will be unable to survive in an environment of cut throat competition.
  - (b) The poor will hesitate to take advantage of credit facilities because of the formalities involved.
  - (c) The poor in the developed world will be overlooked.
  - (d) The interests of the most deserving among the poor will be neglected.

Q 4. What is the author's opinion about the competition for customers among microfinanciers?

  - (a) It benefits the poor by providing them with loans they would have otherwise not had access to.
  - (b) It is futile since the poor have to pay high rates of interest in case of property loans.
  - (c) It is not beneficial since firms waste their profits on marketing rather than helping the poor.
  - (d) None of these

Q 5. Which of the following is/are consequence/s of microfinanciers altering their business models?

  - A. Larger loan amounts get sanctioned.
  - B. Debt among the poor has fallen in some countries.
  - C. Drop in the loans awarded to women.
    - (a) Both A and B
    - (b) Both A and C
    - (c) Only C
    - (d) All A, B and C

## ➤ PASSAGE 27

**Start Time:****End Time:**

**Direction for questions 1 to 4:** Read the passage below and solve the questions based on it.

It is difficult to compare countries because various factors such as size, Culture, History, Geography, natural **endowments**, geopolitics and internal polity comes into play. There are some goals which can be achieved by smaller countries; but sometimes smaller countries find it difficult to embark upon certain big technological plans even if they have the funds, because the size of the domestic market is too small. If we consider the bigger countries, the closest comparison to India is China, though there are many **crucial** differences.

The Chinese vision is to prepare the country for entry into the ranks of mid-level developed nations by the middle of the twenty-first century. Acceleration of his nation's economic growth and social development by relying on advances in science and technology is **pivotal** in this.

Documents describing the Chinese vision state that science and technology constitute premier productive forces and represent a great revolutionary power that can propel economic and social development. It is interesting to note that the main lessons the Chinese have drawn from their past performance is their failure to promote science and technology as strategic tools for empowerment. They also point to the absence of mechanisms and motivations in their economic activity to promote dependences on science and technology. Similarly, they hold that their scientific and technological efforts were not **oriented**. They conclude that a large number of achievements were not converted into productive forces as they were too far removed from China's immediate economic and social needs. The Chinese vision is therefore aimed at exploiting state-of-art science and technology to enhance the nation's overall power and strength, to improve the people's living standards, to focus on resolving problems encountered in large-scale industrial and agricultural production and to effectively control and alleviate pressures brought on by population resources and the environment. By the year 2000, China had aimed at bringing the main industrial sectors up to the technological levels achieved by the developed countries in the 1970s or 80s and by 2020 to the level they would have attained by the early twenty-first century. The aim is to bridge an overall gap with the advanced world. There is a special emphasis on research and development of high technologies that would find defense applications. Some of these technologies are critical for improving the features of key **conventional** weapons. Some technologies are meant for enhancing future military capabilities. Other efforts are aimed at maintaining the momentum to develop capabilities for cutting-edge defense technologies. They call for defense technologies. They call for unremitting efforts in this regard with the aim of maintaining effective self defense and nuclear deterrent capabilities and to enable **parity** in defense, science and technology with the advanced world.

Word Count = 446

Time Taken =

- Q 1. Comparison between two countries becomes difficult because
- the countries differ in their internal political systems.
  - each country has its own culture and natural resources which differ from those of others.
  - the countries with homogeneous backgrounds are many in number.
- (a) Only A  
 (b) Only B  
 (c) Only A and B  
 (d) All the three A, B and C



- Q 2. Which of the following have the Chinese identified as their pitfall(s) from their past?
- Lack of orientation of Science and Technology towards economic growth.
  - Lack of mechanisms in their economic activities to promote use of Science and Technology.
  - Neglect of Science and Technology as a strategic measure for empowerment.
- Only A and B
  - Only B and C
  - Only A and C
  - All the three A, B and C
- Q 3. Which of the following is/are the expected result/s of China's new visions?
- To augment peoples' standard of living.
  - To tackle pressure effectively brought on by the population.
  - To utilize modern technology for bringing the latent power under control.
- Only A and B
  - Only B and C
  - Only A and C
  - All the three A, B and C
- Q 4. Which of the following is the essence of the contents of the passage?
- Enormous population of the country can be positively utilized for developments.
  - Scientific and Technological principles may not necessarily be instrumental in economic growth.
  - Harmonious development of a country can take place even in the absence of technology upgradation.
  - Economic growth needs to be driven by science and technology.

## ➤ PASSAGE 28

**Start Time:**

**End Time:**

**Direction for questions 1 to 4:** Read the passage below and solve the questions based on it.

We have witnessed several disasters in recent times, some natural others man made. The **frequency** of such calamities has injured us and deadened our collective sensitivity, but that does not reduce the enormity of the personal tragedy of each victim's family and community. The economic loss is only secondary to the human suffering, but is also substantial. The Government whether State or Central has standardized its response. This consists of reacting late, blaming others, visits by VIPs announcing a relief package including compensation for those affected and then forgetting all about it. There seems to be little attempt at drawing lessons from each disaster, storing the knowledge for future use, long term planning for possible **preemptive** action. Preparedness for disasters thus falls short of what is possible using today's technologies.

Floods in many parts of India like the states of Bihar and Assam are a yearly phenomenon. Yet the government seems to be caught by surprise year after year. It is obvious that tarpaulins, vaccines, medicines, clothes, satellite phones, large numbers of doctors and paramedical staff, etc., will be needed as will boats and buses for evacuation. This is known to all those who have combated emergencies yet the non-availability of these essential services and commodities occur. Worse the organizational structure and mechanisms for dealing with disasters are **lethargic** and ill defined. The National Disaster Management Agency, set up a short time ago being a central government agency has limitations relating to **infringing** the

### 3.60 ✦✦ Reading Comprehension

jurisdiction of states. It could have aggregated and disseminated experiences and knowledge, stocked many of the essential items required in an emergency or worked with agencies to ensure sufficient stocks, but has not

While the reaction to major disasters is **dismal**, the response to emergencies like accident is equally sad. Victims lie unattended since passers by are wary of getting caught in a labyrinthine of police and legal systems. The resulting delay in treatment converts injuries into deaths. Of late, unique and free service to provide assistance in emergency cases is operational. Emergency Management and Research Institute (EMRI) is a professionally managed operation initiated by the vision and grant from Ramalinga Raju. The service which is a successful example of public private partnership likely to become operational in a few states in the near future. Given the sad failure of conventional government organizations in handling disasters, it is time we looked at the PPP model as an alternative without the government seeking in any way to abdicate its responsibility. While the state provides the funding, private organizations will provide the drive, professionalism, competent management and output linked efficiency of a good corporate organization. Combining the sensitivity and purpose of an NGO with private entrepreneurial drive to handle disasters together is thus a worthwhile challenge for both corporate and the government.

Word Count = 463

Time Taken =

Q 1. Which of the following is NOT true in the context of the passage?

- (a) Manmade disasters occur more frequently than natural disasters.
- (b) The Public Private Participation model has been successful in handling emergencies.
- (c) Floods occur every year in some Indian states.
- (d) Analysis of previous disasters will help us cope with future ones.

Q 2. What is the author's view on the government's current reaction to natural disasters?

- (a) The government has not been able to handle disaster and should seek foreign aid.
- (b) A Central Government agency should be set to speed-up coordination in rescue efforts.
- (c) It has failed to utilize donations effectively to provide relief.
- (d) The government is apathetic and has not managed to handle disasters effectively.

Q 3. What does the author consider "a worthwhile challenge for both corporate and the government"?

- (a) Governments should gradually transfer disaster management to corporates.
- (b) Their working together to manage disasters completely keeping public interests in mind.
- (c) Reducing the incidence of manmade disasters.
- (d) Mitigating the financial losses sustained during natural disasters.

Q 4. Which of the following has/have been the impact/s of consistently occurring natural disasters?

- A. The Government has initiated a long term planning process of handle them.
- B. Use of technology in combating disasters has increased in India.
- C. The Government is not caught unawares when such disasters occur.
- (a) None of these
- (b) Only B
- (c) Both A and C
- (d) Both A and B



## ➤ PASSAGE 29

**Start Time:**

**End Time:**



**Direction for questions 1 to 4:** Read the passage below and solve the questions based on it.

John Maynard Keynes, the trendiest dead economist of this **apocalyptic** moment, was the godfather of government stimulus. Keynes had the radical idea that throwing money at recessions through aggressive deficit spending would **resuscitate** flatinged economies and he was not too particular about where the money was thrown. In the depths of the Depressing, he suggested that the Treasury could “fill old bottles with banknotes, bury them at suitable depths in disused coal mines” then sit back and watch a money-mining boom create jobs and prosperity. “It would, indeed, be more sensible to build houses and the like,” he wrote, but above would be better than nothing.

As President-elect Barack Obama prepares to throw money at the current down urn a stimulus package starting at about \$350 billion chunk of the financial bailout-we all really do seem to be Keynesians now. Just about every expect agrees that pumping \$1 trillion into a **moribund** economy will rev up the ethereal goods-and services engine that Keynes called “aggregate demand” and stimulate at least some short-term activity, even if it is all wasted on money pits. But Keynes was also right that there would be more sensible ways to spend it. A trillion dollars’ worth of bad ideas sprawl-inducing highways and bridges to nowhere, ethanol plants and pipelines that accelerate global warming, tax breaks for overleveraged Mac mansion builders and burdensome new long-term federal entitlements-would be worse than mere waste. It would be smarter to buy every American an iPod, a set of Ginsu knives and 600 Subway foot-longs.

It would be smarter still to throw all that money at things we need to do anyway which is the goal of Obama’s upcoming American Recovery and Reinvestment Plan. It will include a mix of tax cuts, aid to beleaguered state and local governments, and spending to address needed ranging from food stamps to computerized health records to bridge repairs to broadband networks to energy-efficiency retrofits, all designed to save or create 3 million to 4 million jobs by the end of 2010. Obama has said speed is his top priority because the faster Washington injects cash into the financial bloodstream, the better it stands to help avert a multiyear slump with double-digit unemployment and deflation. But he also wants to use the stimulus to advance his long-term priorities: reducing energy use and carbon emissions, cutting middle-class taxes, upgrading neglected infrastructure, reining in health-care costs and eventually reducing the budget deficits that exploded under Gerorge W. Bush. Obama’s goal is to exploit this crisis in the best sense of the word, to start pursuing his vision of a greener, fairer, more competitive, more sustainable economy.

Unfortunately, while 21st century Washington has demonstrated an impressive ability to spend money quickly, it has yet to prove that it can spend money wisely. And the chum of a 1 with 12 zeros is already creating a feeding frenzy for the ages. Lobbyists for shoe companies, zoos, catfish farmers. Mall owners, airlines, public broadcasters, car dealers and everyone else who can afford their retainers are lining up for a piece of the stimulus. States that embarked on **raucous** spending and tax-cutting sprees when they were flush are begging for bailouts now that they’re broke. And politicians are dusting off their unfunded mobster museums, waterslides and other pet projects for regrinding as shovel ready in frastructure investments. As Obama’s aides scramble to assemble something effectives and transformative as well as politically achievable, they acknowledge the tension between his desires for speed and reform.

Word Count = 597

Time Taken =

### 3.62 ♦♦ Reading Comprehension



- Q 1. John M. Keynes was advocate of which of the following suggestions?
- (a) Spending money recklessly during recessions is suicidal.
  - (b) Exorbitant spending during recessions is likely to boost economy.
  - (c) Aggressive deficit spending is likely to be fatal for economic meltdown.
  - (d) Government stimulus to economy may not help because of red-tapism.
- Q 2. The author of the passage calls Barack Obama and his team as “Keynesians” because
- (a) Barack Obama has been reluctant to follow Keynes’ philosophy.
  - (b) his team is advising Barrack to refrain from Keynes’ philosophy.
  - (c) Barak Obama and his team have decided to fill old bottles with banknotes.
  - (d) None of these
- Q 3. Obama’s upcoming American Recovery and Reinvestment Plan focuses on which of the following?
- A. Recovery of all debts from the debtors in a phased manner.
  - B. Pumping money very liberally in projects that are mandatory.
  - C. Investing money recklessly in any project regardless of its utility.
  - (a) A only
  - (b) B only
  - (c) C only
  - (d) B and C only
- Q 4. Which of the following is/are corrective measure(s) as part of the long term priorities of Obama that was an outcome of his predecessor’s regime?
- A. Countering recession through immediate rescue operations.
  - B. Reducing the budget deficit.
  - C. Creating a more sustainable economy.
  - (a) A and B only
  - (b) B and C only
  - (c) A and C only
  - (d) B only

#### ➤ PASSAGE 30

**Start Time:**

**End Time:**

**Direction for questions 1 to 4:** Read the passage below and solve the questions based on it.

Goldman Sachs predicted that crude oil price would hit \$200 and just as it appeared that alternative renewable energy had a chance of becoming an economically viable option, the international price of oil fell by over 70%. After hitting the all-time high of \$147 a barrel, a month ago, crude fell to less than \$40 a barrel. What explains this sharp decline in the international price of oil? There has not been any major new discovery of a hitherto unknown source of oil or gas. The short answer is that the demand does not have to fall by a very sizeable quantity for the price of crude to respond as it did. In the short run, the price elasticity of demand for crude oil is very low. **Conversely**, in the short run, even a relatively big change in the price of oil does not immediately lower consumption. It takes months, or years, of high oil price to inculcate habits of energy conservation. World crude oil price had remained at over \$60 a barrel for most of 2005-2007 without making any major dent in demand.

The long answer is more complex. The economic slowdown in the US, Europe and Asia along with dollar depreciation and commodity speculation have all had some role in the downward descent in the international price of oil. In



recent years, the supply of oil has been rising but not enough to catch up with the rising demand, resulting in an almost vertical escalation in its price. The number of crude oil futures and options contracts have also increased manifold which has led to significant speculation in the oil market. In comparison, the role of the Organization of Petroleum Exporting Countries (OPEC) in fixing crude price has considerably weakened. OPEC is often accused of operating as a cartel restricting output thus keeping prices artificially high. It did succeed in setting the price of crude during the 1970s and the first half of the '80s. But, with increased futures trading and contracts, the control of crude pricing has moved from OPEC to banks and markets that deal with futures trading and contracts. It is true that most oil exporting regions of the world have remained politically unstable **fuelling** speculation over the price of crude. But there is little evidence that the geopolitical uncertainties in west Asia have improved to weaken the price of oil. Threatened by the downward slide of oil price, OPEC ahs, in fact, announced its decision to curtail output.

However most oil importers will heave a sigh of relief as they find their oil bought options to import oil at prices higher than market prices. Exporting nations, on the other hand, will see their economic prosperity slip. Relatively low price of crude is also bad news for investments in alternative renewable energy that cannot compete with cheaper and none-renewable sources of energy.

Word Count = 479

Time Taken =

- Q 1. What does the phrase “the price elasticity of demand for crude oil is very low” imply?
- When the price rises the demand for crude oil fails immediately.
  - A small change in demand will result in a sharp change in the price of crude.
  - Within a short span of time the price of crude oil has fluctuated sharply.
  - A small change in price does not affect much the consumption of crude oil.
- Q 2. Which of the following factors is responsible for rise in speculation in crude oil markets?
- OPEC has not been able to restrict the oil output and control prices.
  - The supply of oil has been rising to match demand.
  - Existence of large number of oil futures and oil contracts.
- Only A
  - Both A and B
  - Only C
  - All A, B and C
- Q 3. What does the author want to convey by citing the Statistics of 2005-2007?
- The prices of crude were rising gradually so people were not alarmed.
  - The dollar was a strong currency during that period.
  - Many people turned to alternative renewable energy sources because of high oil prices.
  - If the price of oil is high for a short time it does not necessarily result in a drop in consumption.
- Q 4. What led to alternative energy sources being considered economically feasible?
- The price of oil rose by 70 per cent while renewable energy sources are cheap.
  - Exorbitant crude oil prices made alternative energy sources an attractive option.
  - Expert predictions that the price of oil would alternately escalate and plunge sharply.
  - Evidence that no new sources of oil and gas are available.

## ➤ PASSAGE 31

**Start Time:****End Time:**

**Direction for questions 1 to 4:** *Read the passage below and solve the questions based on it.*

Indeed the western recession is really the beginning of good news for India! But to understand that we will have to move away for a while from the topic of western recession ... to the Japanese recession! For years the Japanese style of management has been admired. However over the last decade or so, one **key** question has sprung up ‘if Japanese management style is as wonderful as described then why has Japan been in a recession for more than a decade?’

The answer to this question is very simple. Culture plays a very important part in shaping up economies. What succeeds in one culture fails in another. Japanese are basically non materialistic. And however rich they become unlike others, they cannot just keep throwing and buying endlessly. And once they have everything they need there is a saturation point. It was only when companies like Toyota realized that they cannot keep selling cars endlessly to their home market that they went really **aggressive** in the western markets and the rest is history. Japanese companies grew bigger by **catering** to the world markets when their home markets shrunk.

And the markets have to shrink finally after attaining a level of affluence! And that’s great for the world because earth needs sustainable development. It does not need monstrous consumers who keep consuming at the cost of the environment and the earth. There should be limits to growth so that consumers are not converted into material dustbins for the profit of a handful of corporations.

Owing to the materialistic culture elsewhere it was possible to keep selling newer products to the consumers despite having existing ones which served equally well. They were lured techniques of destabilization’ of the customer: and then finally once they became ready customers, they were given loans and credits to help them buy more and more. When all the creditworthy people were given loans to a logical limit, they ceased to be a part of the market. Even this would have been understandable if it could work as an eye opener. Instead of taking the Right Step’ as Toyota did, they preferred to take a ‘shortcut’. Now banks went to the non creditworthy people and gave them loans. The people expectedly defaulted and the entire system collapsed.

Now like Toyota, western companies will learn to find new markets. They will now lean towards India because of its common man! The billion plus population in the next 25 years will become a **consuming** middleclass. Finally the world’s attention will shift to the developing world. Finally there will be a real **surge** in income of these people and in the next fifty odd years, one can really hope to see an equal world in terms of material plenty, with poverty being almost nonexistent! And this will happen not by selling more cars to Americans and Europeans. It will happen by creating markets in India, China, Latin America and Africa by giving their people purchasing power and by making products for them.

The recession has made us realize that it is not because of worse management techniques, but because of limits to growth. And they will realize that it is great for planet earth. After all, how many cars and houses must the rich own before calling it enough? It’s time for them to look at others as well. Many years back, to increase his own profits, Henry Ford had started paying his workers more, so that they could buy his cars. In similar fashion, now the developed world will pay the developing world people so that they can buy their cars and washing machines.

The recession will kick-start the process of making the entire world more **prosperous**, and lay the foundation of limits to growth in the west and the foundation of real globalization in the world or the globalization of prosperity. And one of its first beneficiaries will be India.

Word Count = 660

Time Taken =



- Q 1. What does the author mean by the “Right Step” in the passage?
- Giving loans to creditworthy people only.
  - Considering market growth along with environment protection.
  - Restricting people to buy only such products which are needed by them.
  - To start looking at newer avenues and markets.
- Q 2. Although admired since years, why did the skepticism over the Japanese management style start since the last decade?
- Japanese companies have been moving out of their home markets since the last decade.
  - Japanese banks have provided loans indiscriminately to the creditworthy as well as non creditworthy people.
  - Both (a) and (b)
  - Only (b)
- Q 3. Why does the author foresee the markets being created in the developing countries instead of America and Europe?
- All developing countries have materialistic culture.
  - Developed countries are willing to make an effort to achieve globalization.
  - American and European markets have had a large number of credit defaulters.
  - None of these
- Q 4. How does the author foresee the future globalization as an analogy to Henry Ford’s example?
- Car companies would start selling cars in developing countries as well.
  - By paying the developing world the developed world would increase its own profit in turn bringing affluence to developing world as well.
  - To earn profit, the companies in developing countries would move to foreign land.
- Only A
  - Only B
  - Only C
  - Only A and C

## ➤ PASSAGE 32

**Start Time:**

**End Time:**

**Direction for questions 1 to 4:** Read the passage below and solve the questions based on it.

Capitalism is a great slave, but a pathetic master. This truth unfortunately gets lost in our chase for the **elusive** dream. It's the dream of being independent masters of our lives or making big bucks and of being happy—even if that happiness is being bought by money which all of them chase out there. No doubt, the West, on its part, has been fairly successful in creating material comforts a plenty. It has improved the living standard of its average citizen. However it has been achieved as a result of more than 200 years of **unbridled** growth and exploitation. And that is what has made the rest of the world mindlessly **chase** Westernism not necessarily happiness or an ideal form of society. All because the shop window looks very impressive and it has been marketed very well.

But a deep look inside the shop tells a different tale. A different world lies behind; a world that is not quite visible to the starry eyed millions – for whom the Western way of life seems to be the ultimate dream.

Thus, we have Indians dreaming to become or to get married to an NRI and Indian middle class fathers dreaming of their sons reaching the Bay area and landing tech jobs, unmindful of the second class life they end up leading in the West. What

### 3.66 ♦♦ Reading Comprehension

goes unseen and almost unheard is that the West also happens to be the land that is right amongst the top in terms of the number of divorces per thousand, the number of single parent families per thousand, the number of old people in old age homes, the number of suicides, homicides, and of course, the number of college/school shootouts.

And why not! After all, such societies are constantly driven towards higher profits and materialism. Expectedly, this materialism comes at a cost that the world is paying today. This is the reason why we have millions dying of curable diseases in Africa and other underdeveloped countries, while the rich grow richer. Their growth will be reduced, if they were to start thinking of the poor so what do they do to justify their greed for more? They most **shrewdly** propagate and market a ridiculously primitive law of the jungle for our 21st century civilian, the Law of Survival of the Fittest!

The interesting thing about material things is that they only give an illusion of happiness; however such happiness is always **momentary** in nature Ergo, at this juncture, you feel you are buying your new car or flat screen TV, and just a few days later, these are the very possessions that cease to make you happy. While you chase the bigger car and spend that extra bit of the wealth, you intercept someone's share of the daily bread and also sacrifice those who have the maximum power to make you happy-family, emotions and love. Prolonged abstinence in feeling emotions finally destroys bliss; and you do not even realize when you have become a dry-eyed cripple ... and then you land up in a sermon workshop to find out the real meaning of life – or whatever these workshops are capable of explaining. The truth is that such workshops are also driven by merchants who cash in on the **dejected** state of the people, a state created by their own fictional dreams. But by then it's really too late.

By then, you have made profits out of arms, and engineered wars to keep that industry alive. You have sold guns across counters at supermarkets and made more profits. You have lobbied that guns should be made accessible to the common man, and all for the sake of profits. This makes you realize one day that they are your own children who are in the line of fire against the school goer who opens fire at his schoolmates.

This is the society that finally creates an emotionless monster, who gets satisfaction in killing innocent adults and children alike for no cause no reason and for none, for himself. It is the utter destruction of spiritualism and the total focus on endless self-gratification. Where so many single parent families and divorces exist, it is impossible to bring up children or influence the killers, any better.

Word Count = 701

Time Taken =

Q 1. Who does the author hold responsible for the shooting spree in schools and colleges?

- A. Lack of love and emotion in the society in general.
  - B. Increased focus on self-gratification even when it comes at the cost of innocent lives.
  - C. Deteriorating social structure leading to break up of families resulting in lack of families resulting in lack of moral development in children.
- (a) Only A
  - (b) Only C
  - (c) Only B and C
  - (d) All of these

Q 2. According to the passage, which of the following is a reason for poverty and hunger in underdeveloped countries?

- A. Mindlessly chasing the Western way of living.
- B. They have fallen prey to the idea of happiness through material comforts rather than love and emotional bond.
- C. They do not have marketing techniques as good as the western countries.





- (a) Only B
- (b) Only C
- (c) Only A
- (d) Non mentioned in the passage

- Q 3. What does the author mean by ‘intercepting someone’s share of daily bread’?
- (a) Hindering the process of marketing in underdeveloped countries by the developed countries.
  - (b) Denying material comfort to the Western world.
  - (c) Affecting the social life of those working towards material comforts only.
  - (d) Excess of wealth in western world while people in poorer nations struggle for survival.

- Q 4. The author’s main objective in writing the passage is
- (a) to explain that consumerist societies have their own drawbacks which are over blinded by its material glare.
  - (b) to explain how too many material comforts have improved the living standard of common man in the west.
  - (c) that young children should not given access to guns and other ammunitions.
  - (d) all NRIs are leading unmindful, second class lives abroad.

### ➤ PASSAGE 33

**Start Time:**

**End Time:**

**Direction for questions 1 to 4:** Read the passage given below and solve the questions based on it.

The conceptions of life and the world which we call ‘philosophical’ are a product of two factors: one, inherited religious and ethical conceptions; the other, the sort of investigation which may be called ‘scientific’, using this word in its broadest sense. Individual philosophers have differed widely in regard to the proportions in which these two factors entered into their systems, but it is the presence of both, in some degree, that characterizes philosophy.

‘Philosophy’ is a word which has been used in many ways, some wider, some narrower. I propose to use it in a very wide sense, which I will now try to explain.

Philosophy, as I shall understand the word, is something intermediate between theology and science. Like theology, it consists of speculations on matters as to which definite knowledge has, so far, been unascertainable; but like science, it appeals to human reason rather than to authority, whether that of tradition or that of revelation. All definite knowledge, so I should contend, belongs to science; all dogma as to what surpasses definite knowledge belongs to theology. But between theology and science there is a ‘No man’s Land’, exposed to attack from both sides; this ‘No Man’s Land’ is philosophy. Almost all the questions of most interest to speculative minds are such as science cannot answer, and the confident answers of theologians no longer seem so convincing as they did in former centuries. Is the world divided into mind and matter, and if so, what is mind and what is matter? Is mind subject to matter, or is it possessed of independent powers? Has the universe any unity or purpose? Is it evolving towards some goal? Are there really laws of nature, or do we believe in them only because of our innate love of order? Is man what he seems to the astronomer, a tiny lump of carbon and water impotently crawling on a small and unimportant planet? Or is he what he appears to Hamlet? Is he perhaps both at once? Is there a way of living that is noble and another that is base, or are all ways of living merely futile? If there is a way of living that is

### 3.68 ◇◇ Reading Comprehension

noble, in what does it consist, and how shall we achieve it? Must the good be eternal in order to deserve to be valued, or is it worth seeking even if the universe is inexorably moving towards death? Is there such a thing as wisdom, or is what seems such merely the ultimate refinement of folly? To such questions no answer can be found in the laboratory. Theologies have professed to give answers, all too definite; but their definiteness causes modem minds to view them with suspicion. The studying of these questions, if not the answering of them, is the business of philosophy.

Why, then, you may ask, waste time on such insoluble problems? To this one may answer as a historian, or as an individual facing the terror of cosmic loneliness.

The answer of the historian, in so far as I am capable of giving it, will appear in the course of this work. Ever since men became capable of free speculation, their actions in innumerable important respects, have depended upon their theories as to the world and human life, as to what is good and what is evil. This is as true in the present day as at any former time. To understand an age or a nation, we must understand its philosophy, and to understand its philosophy we must ourselves be in some degree philosophers. There is here a reciprocal causation: the circumstances of men's lives do much to determine their philosophy, but, conversely, their philosophy does much to determine their circumstances.

There is also, however, a more personal answer. Science tells us what we can know, but what we can know is little, and if we forget how much we cannot know we may become insensitive to many things of very great importance. Theology, on the other hand, induces a dogmatic belief that we have knowledge, where in fact we have ignorance, and by doing so generates a kind of impudent insolence towards the universe. Uncertainty, in the presence of vivid hopes and fears, is painful, but must be endured if we wish to live without the support of comforting fairy tales. It is not good either to forget the questions that philosophy asks, or to persuade ourselves that we have found indubitable answers to them. To teach how to live without certainty, and yet without being paralyzed by hesitation, is perhaps the chief thing that philosophy, in our age, can still do for those who study it.

Word Count = 775

Time Taken =

- Q 1. The purpose of philosophy is to:
- (a) reduce uncertainty and chaos.
  - (b) help us to cope with uncertainty and ambiguity.
  - (c) help us to find explanations for uncertainty.
  - (d) reduce the terror of cosmic loneliness.
- Q 2. Based on this passage what can be concluded about the relation between philosophy and science?
- (a) The two are antagonistic.
  - (b) The two are complementary.
  - (c) There is no relation between the two.
  - (d) Philosophy derives from science.
- Q 3. From reading the passage, what can be concluded about the profession of the author? He is most likely **not** to be a:
- (a) Historian
  - (b) Philosopher
  - (c) Scientist
  - (d) Theologian
- Q 4. According to the author, which of the following statements about the nature of the universe must be definitely true?
- (a) The universe has unity.
  - (b) The universe has a purpose.
  - (c) The universe is evolving towards a goal.
  - (d) None of these



## ➤ PASSAGE 34

**Start Time:**

**End Time:**



**Direction for questions 1 to 5:** Read the passage below and solve the questions based on it.

"We have always known that heedless self-interest was bad morals. We now know that it is bad economics said American President Franklin D. Roosevelt in 1937 in the midst of the Great Depression. And the world has learnt that **enlightened** self-interest is good economics all over again after the Great Recession of 2009. Americans are entering a period of social change as they are recalibrating their sense of what it means to be a citizen, not just through voting or volunteering but also through commerce. There is a new dimension to civic duty that is growing among Americans the idea that they can serve not only by spending time in communities and classrooms but by spending more responsibly. In short, Americans are beginning to put their money where their **ideals** are.

In a recent poll most said they had consciously supported local or small neighborhood businesses and 40 per cent said that they had purchased a product because they liked the social or political values of the company that produced it. People were alarmed about 'blood diamonds' mined in war zones and used to finance conflict in Africa. They were also willing to pay \$2000 more for a car that gets 35 miles per gallon than for one that gives less, though the former is more expensive but environment friendly. Of course consumers have done their own doing-well-by doing-good calculation – a more expensive car that gives; better mileage will save them money in the long run and makes them feel good about protecting the environment. Moreover since 1995, the number of Socially Responsible Investment (SRI) mutual funds, which generally avoid buying shares of companies that profit from tobacco, oil or child labour has grown from 55 to 260. SRI funds now manage approximately 11 per cent of all the money invested in the US financial markets – an estimating mindset in a nation whose most iconic economist Milton Friedman wrote in 1970 that a corporation's only moral responsibility was to increase shareholder profits.

At first the corporate stance was defensive: companies were punished by consumers for unethical behavior such as discriminatory labour practices. The nexus of activist groups, consumers and government regulation could not merely tarnish a company but put it out of business. But corporate America quickly discerned that social responsibility **attracts** investment capital as well as customer loyalty, creating a virtuous circle. Some companies quickly **embraced** the new ethos that consumers boycotted products they considered unethical and others purchase products in part because their manufacturers were responsible. With global warming on the minds of many consumers lots of **companies are racing to 'out green' each other**. The most progressive companies are talking about a triple bottom line-profit, planet and people that focuses on how to run a business while trying to improve environmental and worker conditions.

This is a time when the only thing that has sunk lower than the American public's opinion of Congress is its opinion of business. One burning question is how many of these Corporate Social Responsibility (CSR) initiatives are just shrewd marketing to give companies a halo effect? After all only 8 per cent of the large American corporations go through the trouble of verifying their CSR reports, which many consumers do not bother to read. And while social responsibility is one way for companies to get back their reputations consumers too need to make ethical choices.

Word Count = 552

Time Taken =

### 3.70 ✦✦ Reading Comprehension



- Q 1. Which of the following represents the change/s that has/have occurred in the American outlook?
- A. The perception that the government needs to invest resources in business rather than in education.
  - B. Loss of faith in American corporations as they do not disburse their profits equitably among shareholders.
  - C. Americans have cut down on their expenditure drastically to invest only in socially responsible mutual funds.
  - (a) None                   (b) Only C
  - (c) Only A and B       (d) Only A and C
- Q 2. Which of the following is/are TRUE in the context of the passage?
- A. The voter turnout during the 2009 American elections was high.
  - B. African diamonds are highly valued by the American public.
  - C. American firms have to spend vast amounts on advertising because activists cast aspersions on their images.
  - (a) None                   (b) Only A
  - (c) Only B and C       (d) Only C
- Q 3. Which of the following is the central idea of the passage?
- (a) It is beneficial to invest in American companies as they are socially responsible and profitable.
  - (b) Large corporations should be penalised by the American government for their greed.
  - (c) Ethical consumerism is profitable for organizations as well as society as a whole.
  - (d) Companies should be required by law to account for their impact on the environment in their balance sheet.
- Q 4. Which of the following best describes the widespread view among Americans about big corporations?
- (a) They have been lax in fulfilling their moral responsibility of increasing profits and benefiting shareholders.
  - (b) They are being too severely penalised by activities and the government for their role in the economic crisis.
  - (c) Their innovations have brought commercial success and benefited America tremendously.
  - (d) They need to be held accountable for their unethical business practices.
- Q 5. What is the author trying to convey through the phrase '**companies are racing to outgreen each other**'?
- (a) The competition among companies to boost their bottom line profit, planet and people – is very stiff.
  - (b) The conflict facing businesses of whether to benefit their shareholders or the environment.
  - (c) Corporations are vying with each other to solicit investment.
  - (d) Companies are striving to find the necessary funds to finance their environment friendly initiatives.

#### ➤ PASSAGE 35

**Start Time:**

**End Time:**

**Direction for questions 1 to 6: Read the passage below and solve the questions based on it.**

The great fear in Asia a short while ago was that the region would suffer through the wealth destruction already taking place in the U.S. as a result of the financial



crisis. Stock markets turn bled as exports plunged and economic growth deteriorated. Lofty property prices in China and elsewhere looked set to bust as credit tightened and buyers **evaporated**. But with surprising speed, fear in Asia swung back to greed as the region shows signs of recovery and property and stock prices are soaring in many parts of Asia.

Why should this sharp Asian turnaround be greeted with skepticism? Higher assets prices mean households feel wealthier and better able to spend, which could further fuel the region's nascent rebound. But just as easily, Asia could soon find itself saddled with overheated markets similar to the U.S. housing market. In short **the world has not changed, it has just moved places.**

The incipient bubble is being created by government policy. In response to the global credit crunch of 2008, policy makers in Asia slashed interest rates and **flooded** financial sectors with cash in frantic attempts to keep loans flowing and economies growing. These steps were logical for central bankers striving to reverse a deepening economic crisis. But there's evidence that there is too much easy money around it's winding up in stocks and real estate, pushing prices up too far and too fast for the underlying economic fundamentals. Much of the concern is focused on China, where government stimulus efforts have been large and effective. Money in China has been especially easy to find. Aggregate new bank lending surged 201% in the first half of 2009 from the same period a year earlier, to nearly \$1.1 trillion. Exuberance over a quick recovery which was given a boost by China's surprisingly strong 7.9% GDP growth in the second quarter has **bayed** investor sentiment not just for stocks but also for real estate.

Former U.S. Federal Reserve Chairman Alan Greenspan argued that bubble could only be recognized in hindsight. But investors who have been well schooled in the dangers of bubbles over the past decade are increasingly wary that prices have risen too far, and that the slightest bit of negative economic news could knock markets for a loop. These fears are compounded by the possibility that Asia's central bankers will begin taking steps to shut off the money. Rumours that Beijing was on the verge of tightening credit led to Shanghai stocks plunging 5%. Yet many economists believe that "there is close to a zero possibility that the Chinese government will do anything this year that constitutes tightening." And without a major shift in thinking, the easy money conditions will stay in place. In a global economy that has produced more dramatic ups and downs than anyone thought possible over the past two years, Asia may be heading for another disheartening plunge.

Word Count = 482

Time Taken =

- Q 1. To which of the following has the author attributed the 2008 Asian financial crisis?
- Reluctance of Asian governments to taper off the economic stimulus.
  - Greed of Asian investors causing them to trade stocks of American companies at high prices.
  - Inflated real estate prices in Asian countries.
- None
  - Only A
  - Only C
  - Only A and B
- Q 2. What is the author's main objective in writing the passage?
- Illustrating that Asian economies are financially more sound than those of developed countries.
  - Disputing financial theories about how recessions can be predicted and avoided.
  - Warning Asian countries about the dangers of favouring fast growth and profits over sound economic principles.
  - Extolling China's incredible growth and urging other countries to emulate it.

### 3.72 ✦✦ Reading Comprehension

- Q 3. What does the author want to convey through the phrase “The world has not changed it has just moved place”?
- (a) At present countries are more dependent on Asian economies than on the US economy.
  - (b) Economies have become interlinked on account of globalization.
  - (c) Asian governments are implementing the same economic reforms as developed countries.
  - (d) All economies are susceptible to recession because of the state of the US economy.
- Q 4. According to the passage, which of the following factor(s) has/have had a negative impact on the Asian stock markets?
- A. Abrupt drop in exports by Asian countries
  - B. Extravagant disbursement of housing loans in 2009
  - C. Raising of interest rates by the Central Bank
  - (a) None                   (b) Only A and B
  - (c) Only A               (d) Only A and C
- Q 5. Which of the following can be inferred from the passage?
- A. All Asian economies are recovering at the same pace.
  - B. Experts are apprehensive about the state of Asian economies despite their recovery.
  - C. Developed countries should implement the same economic reforms as Asian ones.
  - (a) Only A               (b) Only B and C
  - (c) Only A and B       (d) Only B
- Q 6. What do the Statistics about loans given by Chinese banks in 2009 indicate?
- (a) There was hardly any demand for loans in 2008.
  - (b) The Chinese government has borrowed funds from the U.S.
  - (c) China will take longer than the US to recover from the economic crisis.
  - (d) None of these



### ➤ PASSAGE 36

**Start Time:**

**End Time:**

**Direction for questions 1 to 3:** *Read the passage below and solve the questions based on it.*

There are various sectors in India that are to be assessed for their strengths, weaknesses, opportunities and threats.

The total population is over 1 billion which will increase to 1.46 billion populations will result in higher unemployment and deterioration of quality. Literacy in India is yet another factor to be discussed. According to 1991 census, 64.8% of the population was illiterate. The major downturn of education is due to child labour which has spread all over India and this should be totally eradicated by way of **surveillance** and a good educational system implemented properly by the Government.

Pollution is one more threat to the environment and for the country's **prospects**. This has been experienced more in urban areas mainly in metropolitan cities. The water pollution by the sewage seepage into the ground water and improper maintenance will lead to various diseases which in turn will affect the next generation. In most of the cities there is no proper sewage disposal. The Government has to take effective steps to control population which, in turn, will minimize the pollution.

Poverty questions the entire strength of India's political view and minimizes the energetic way of approach. The shortfall of rains, enormous floods, unexpected



famine, drought, earthquake and the recent tsunami hit the country in a negative way. The proactive approach through effective research and analytical study helps us to determine the effects in advance. Proper allocation of funds is a **prerequisite**. In developed countries like U.S., Japan precautionary methods are adopted to overcome this, but it has to be improved a lot in our systems.

Increased population is one of the major reasons for poverty and the Government is unable to allocate funds for basic needs to the society. India has nearly 400 million people living below the poverty line and 90% of active population is in informal economy. The children are forced to work due to their poverty and **differential caste system**. They work in match industry for daily wages, as servants, mechanics, stone breaker, agricultural workers, etc., to prevent child labour, existing laws which favour the Anti Child Labour Act should be implemented by the Government **vigorously**.

More population results in cheap cost by virtue of the demand supply concept. Most of the foreign countries try to utilize this factor by outsourcing their business in India with a very low capital. According to U.S., India is a “Knowledge pool” with cheap labour. The major advantage is our communication and technical skill which is adaptable to any environment. The cutting edge skill in IT of our professionals helps the outsourcing companies to **commensurate** with the needs of the consumers in a short span. The major competitors for India are China and Philippines and by the way of technical ability, Indians are ahead of the race. The major Metropolitan states are targeting the outsourcing field vigorously by giving various amenities to the outsourcing companies like tax concession, allotting land, etc., to start their businesses in its cities without any hurdles. Thereby most of the MNCs prefer India as their destinations and capitalize the resources to maximize their assets. Infrastructure is another key factor for an outsourcing company to start a business in a particular city. It includes road, rail, ports, power and water. The increased input in infrastructure in India is very **limited** where China’s record is excellent.

India in earlier days gave more importance to the development of industry and less importance to other departments. But the scenario has quite changed now-a-days by allocating a special budget of funds for security. This is because of the frightening increase in terrorism all around the world especially emerging after the 9/11 terror attack in U.S. in the last ten years, budget towards the development of military forces is higher when compared to others. It shows when compared to others. It shows that the threat from our neighbouring countries is escalating. India has to concentrate more on this security factor to wipe out the problem in the way of cross border terrorism.

Making India, a developed country in 2020 is not an easy task. India has to keep in check a variety of factors in order to progress rapidly. To quote China as an example is that they demolished an old building to construct a very big port to meet future things to happen. The profits gained by India through various sectors are welfare of the country. India’s vision for a brighter path will come true not only by mere words or speech. But extra effort needed at all levels to overcome the pitfalls.

Word Count = 760

Time Taken =

- Q 1. Which of the following, according to the author, is/area result(s) of increased population in India?
- Pollution
  - Poverty
  - Unemployment
- (a) Only A            (b) Only A and B  
 (c) Only B            (d) All A, B and C
- Q 2. Why according to the author has the Indian Government allotted more funds to strengthen the military forces?
- To improve security in order to counter increasing terrorism.
  - As the security in India over the past ten years was grossly inadequate.

### 3.74 ✦✦ Reading Comprehension



- (c) As the U.S. too has strengthened its military forces after the 9/11 attack.
- (d) As the industry is developed enough and is not in need of any more funds.

- Q 3. What is the author's main objective in writing this passage?
- (a) To exhort the Government to garner support from its neighbouring countries.
  - (b) To suggest to the Government to follow China's example blindly thereby bringing about rapid development.
  - (c) To highlight the plight of the poor.
  - (d) To bring forth the problems associated with the India's development and to suggest measures to counter them.

#### ➤ PASSAGE 37

Start Time:	End Time:
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**Direction for questions 1 to 5: Read the passage below and solve the questions based on it.**

Thinking of what education might look like in the next decade, one quickly realizes that the trends in technology are leaving a large number of our students behind. Today is an age of exponential change. New and ever improving technologies are popping up every day and in every corner of society.

Educating the best and the brightest in this brave new world will take a new and improved educational **paradigm**. Allowing our educational tools to age in the corner of the classroom will be the mistake that may cost us our future. Throwing away masses of children to **inequitable** access will ensure that we **languish** at the bottom of the global pool of employable workers for decades to come.

Technology will shape the way we educate students in the next decade. A user is not simply a person who uses. For the student, being a user should involve using the latest technology in a free and **autonomous** manner. This new-found freedom will allow the student to become an active participant in his/her education instead of a passive passenger. In our current technological society, being a user also means being tracked. Tracking a student means having the ability to target education towards weaknesses and strengths. The ability to accurately customize curricula to the individual has been the holy grail of educational philosophy for many years. This golden age of technological development may soon enable this dream to become a reality.

Current educational curricula and individual assessment is **arbitrary** at best. Accurately assessing a student can only be achieved by using modern tracking and database technologies. Imagine a world where every child has a tablet computer with ready access to the internet. Further, imagine that every student can access all the knowledge of humankind freely at any moment in time. Continue to imagine a world where a misspelled word brings up a spelling challenge application instead of an auto correction. Try to contemplate what it would mean for a teacher to have a database of every misspelled word, every misunderstood concept or every missed equation for each of their students. Try to envision a teacher with the ability to customize the experience of the individual "user" with minimal effort. Imagine the curriculum being automatically targeted to the user through an intuitive educational platform that knows all strengths and each unique weakness. In the last few hundred years, most individuals would consider an education as something you receive. You often hear the question asked, "Where did you receive your education?" as we proceed through the next decade, education will slowly move away from reception and toward being custom designed for the individual user. New technology will not only allow us to receive an education, but also develop an education. The question



we might ask in ten years, “How did you develop your education?” the question of where will still be important, but the how of the matter will be the focus that defines the individual.

To make this a reality we will need a standardized platform from which to develop a student’s unique education. This standardized platform will allow to tailor a custom curriculum that will be matched to talents, interests and life goals. For the educator, a standardized platform will create a way to assist the student in discovering a true purpose in life through a unique educational experience. The basics of reading, writing and arithmetic will not be taught as much as they will be discovered and used. Learning will become a **reciprocal** experience between the teachers the student and the machine.

Under a standardized platform, each of these three participants will have a role to play. The teacher will be the facilitator assisting the development of the curriculum and inspiring the direction the student takes. The student will be the user, gathering resources, skills and knowledge in an efficient and measured sequence. The machine will do the work of data gathering and analysis, which will assist the teacher and student in refining the curriculum. This data gathering work of the machine will also free the teacher from the burden of record-keeping and tedious tasks that currently distract from the real job of teaching and learning.

Under a standardized system, grade level will be far less important. Achievement and progression will be measured by accomplishment and intelligence as a benchmark for success. The question of failure or success will be irrelevant and replaced with a standard and consistent measurement of potential and overall intelligence. Information will no longer be missed but continually rehearsed and monitored for retention by the machine. Tasks such as data tracking reporting and record keeping are currently accomplished manually. These tasks could easily be **delegated** to an intuitive database. Developing a standard to follow would eliminate these tasks and free the teacher to do their main job of teaching students.

The next decade may mark the moment in history when all are granted equal access to technology. Access to quality education will only be gained through investment and universal standardization of this technology. If we continue to divert wealth towards fruitless goals and corporate greed, this opportunity will be lost or hopelessly delayed.

Word Count = 855

Time Taken =

**Q 1.** According to the author, which of the following will be the benefit(s) of introducing a standardized technological platform?

- A. Potential of a child will take precedence over the grades he/she scores.
- B. Improving the educational syllabus would become easier.
- C. Teachers would be able to devote more time to teaching.
- (a) Only C      (b) All A, B and C
- (c) Only B and C      (d) Only A and B

**Q 2.** Which of the following is/are **true** in the context of the passage?

- A. In the presence of technology each student would require constant monitoring by other individuals to maximize learning.
- B. Educational philosophy is based on the belief of tailoring educational syllabus to individual student capability.
- C. The author visualizes that each student will have access to technology in the future.
- (a) Only A and B      (b) Only B
- (c) Only C      (d) Only B and C

**Q 3.** What does the author mean by the term “tracking a student”?

- (a) Analyzing the strengths and weaknesses of a student and designing an educational syllabus accordingly.
- (b) Assessing whether a student is paying due attention to the existing curriculum offered by an institute of learning’s.

### 3.76 ♦♦ Reading Comprehension

- (c) Analyzing the positives and negatives of an educational institute of modifying it suitably to cater to industrial requirements.  
(d) Following a student to the educational institute that he visits frequently in order to estimate the time he spends there.
- Q 4. According to the author, why is the current education provided not satisfactory?  
(a) The teachers providing education are not qualified enough to emphasize on quality.  
(b) Quality of education provided is not uniform across the globe and individual assessment is subjective.  
(c) The education sector is fraught with corrupt practices and thus does not produce the desired.  
(d) The education system is not guided by technology and hence, the pace of learning is slow.
- Q 5. What is the author's vision regarding the integration of technology with education?  
A. A substantial database consisting of each student's learning curve would be readily available.  
B. An error would activate software which would encourage learning rather than auto-correcting.  
C. Experimentation in academics would be encouraged.  
(a) Only C  
(b) Only A and B  
(c) All A, B and C  
(d) Only A and C



#### ➤ PASSAGE 38

**Start Time:**

**End Time:**

**Direction for questions 1 to 4:** *Read the passage below and solve the questions based on it.*

A few weeks ago, a newspaper article quoted a well known scientist saying, "IT has destroyed Indian science". One can **speculate** about the various ways in which the growth of the IT sector and other similar knowledge industries such as biotechnology has led to a decline in basic scientific research in India.

The most obvious reason is money; pay scales in IT and BT are much higher than one can aspire to in academia. The argument goes; why should a **bright** B. Tech. or M. Sc. Student enroll in a Ph. D. programme when she can make a lot more money writing code? Not only does a **fresh** IT employee make a lot more than a fresh M. Tech. student, his/her pay will rise much faster in IT than in academia. A professor/s pay at a government run university, even after the Sixth Pay Commission, tops out at far less than a senior executive's salary in a major industry.

Second, the social status of IT and BT jobs equal or even exceed the social status of corresponding academic positions, since they are seen as knowledge industries, which plays to the best and worst instincts of the societal order. As **quintessential** white collar professions, neither do they compel a successful entrepreneur to resort to violence and corruption, nor do they demand any physical labour. Unlike real estate or road construction, it is felt that IT workers can become rich while staying honest and sweat-free.

Assuming that the labour pool for academia and IT is roughly the same, the difference in our collective preferences biases the labour market towards IT and away from academia. Further, when the imbalance between IT and academia continues for years and even decades, a destructive loop, from academia's point of view, is created. When our best and brightest take IT jobs over academic ones for a decade



or more, faculty positions in our universities and research centers are no longer filled by the best candidates.

As faculty quality goes down, so does the **capacity** to train top-class graduate students who, after all, are teachers in training. In response to decreasing faculty quality, even those students who otherwise choose an academic profession, decide to join industry or go abroad for their studies. These foreign trained graduates prefer to come back to corporate India—if at all they do come back—and the downward cycle replicates itself in each generation. In other words, academia is trapped within a perfect storm created by a combination of social and economic factors.

In this social-economic calculus, the members of our societal classes should prefer an IT job to an academic one. Or, to put it another way, the knowledge economy, i.e., the creation of knowledge for profit, trumps the knowledge society, i.e., the creation of knowledge for its own sake or the sake of the greater good. As is said. “Knowledge is power, but money is even more power.” Perhaps the scientist was **alluding** to this victory of capitalism over the pursuit of pure knowledge when he accused IT of having a negative influence on Indian science.

Surely, knowledge has become a commodity like any other and as a result, knowledge workers are like any other labourers, who will sell their wares to the highest bidder. One solution is to accept and even encourage the commoditization of knowledge; if so, Indian universities and research centers should copy their western counterparts by becoming more and more like corporations. These centers of learning should convert themselves into engines of growth. In this logic, if we increase academic salaries and research grants to match IT pay cheques we will attract good people into academia, where, in any case, it is rumored that a certain **elusive** feeling called ‘the quality of life’ is better.

Word Count = 626

Time Taken =

- Q 1. According to the passage what did the scientist actually mean when he said, “IT has destroyed Indian Science?”
- The centres meant for scientific research are being utilized by IT industries.
  - The IT industry does not employ people pursuing higher studies.
  - As information is readily available on the internet because of IT. There is no need to seek further information.
  - The desire for money has overshadowed the search for knowledge.
- Q 2. Which of the following is possibly the most appropriate title for the passage?
- Is the future of IT Bright?
  - The IT industry and the World Economy
  - Research and Academics Losing the Battle against IT
  - Scientific Research and the Need for Well Trained Faculty
- Q 3. What, according to the author, is a destructive loop?
- Many people quit their existing jobs to work in the IT industry which in turn leads to the downfall of the other industries.
  - The fact that the best minds do not want to become teachers and this in turn leads to good students seeking knowledge elsewhere.
  - The fact that people working in the IT industry do not pursue higher studies which in turn leads to the deterioration in quality of employees.
  - The unending use of resources by the IT industry leading to a dearth of resources in the country.
- Q 4. Which of the following mentioned below is/are the author’s suggestion/s to promote interest in Indian academia?
- Research centers should adopt the corporate culture as is done in the West.
  - Lessening the number of research grants given.
  - Making academic salaries equivalent to those paid in IT industries.
- Only C
  - Only A
  - Only B and C
  - Only A and C

## ➤ PASSAGE 39

**Start Time:****End Time:**

**Direction for questions 1 to 4:** Read the passage below and solve the questions based on it.

At the time when the unfortunate incident of the ‘accidental’ exposure to radiation that affected workers and waste collectors in Delhi as they handled radioactive material. Took place, the issue of waste disposal, particularly hazardous waste, made the headlines. The lives of those who live off collecting and sorting waste came into our line of vision. But then the issue disappeared.

Long term policies that ensure that the safety and health of those who do such an essential job—a community of silent environmentalists someone called them are not such a high priority any more. One reason is that the people affected are virtually invisible.

Waste collectors around India work silently. Often late into the night, sorting out mountains of waste, **foraging** for anything that can be sold. If you walk down some streets of central Mumbai after 11 at night. You will see an army of waste collectors. Men women, children are all hard at work. They work through the night and finally manage to get some sleep on the doorsteps of the shops on those streets. By daylight they become invisible, having stowed their belongings in boxes behind the signs of the shops on whose doorsteps they sleep. These are the people of the night, not noticed by those who **inhabit** the areas in the day.

What is often not entirely appreciated is that a substantial percentage of waste collectors is women. According to a study. 85 per cent of waste collectors in the city are women, five per cent are children and 10 per cent are men. The majority of them are poor and landless people who came to the city because of drought in their villages. The age group ranges from 7 to 70 years and 98 per cent of them are illiterate. A survey of 60.000 waste collectors found a similar proportion. 60 per cent women, 20 per cent men and 20 per cent children. Studies have revealed that 90 per cent of the women waste pickers are primary bread-winners, often widowed or deserted. It is interesting how the gender division of labour plays out even in the business of waste. While women, and children, do the more **hazardous** job of sorting and separating the waste, the men deal with the wholesalers and factories. As a result it is the women who are exposed to hazardous waste none of them wear any kind of protective gear and also face the physical problems of constantly bending and carrying head loads of the waste. Look at any group of waste collectors and you will spot the bent old women who have been performing this function for decades.

In the slum-city of Mumbai, waste collectors experience the most acute degree of homelessness. While poor people in other kinds of jobs somehow manage to find some shelter in a slum, irrespective of whether it is legal or illegal, waste collectors sleep next to the garbage they have sorted. This is their wealth something they have to protect after they have collected and sorted it until they can **monetize** it. Hence, near many garbage dumps, even in the better off localities of cities like Mumbai, you see families of waste pickers asleep in the morning. And most often you see only women and children.

Why bring up waste collectors at a time when the main environmental issues being debated are the larger issues of global warming. Or environmental disasters such as the oil spill in the Gulf of Mexico? This is because one cannot speak of the environment without **considering** its impact on the lives of people. We have hundreds of small scale and continuing environmental disasters taking place all around us. But we overlook them so long as they do not impact our lives or our lifestyles. Millions of waste pacers in India. Who play a crucial, role in dealing with the perennial environmental crisis of waste. Risk their lives and their health every single day. This is an ongoing environmental issue that requires as much



attention from ordinary people, the media and policy makers as the larger macro issues.

Word Count = 679

Time Taken =

- Q 1. Why are long term policies favouring waste collectors not high priority?
- The government is currently contemplating over the effects of the oil spill in the Gulf of Mexico and does not have time for other issues.
  - The plight of these people is not evident as they work late into the night and are not seen much during the day.
  - The Government is unable to see these people at all and thus is not aware of their existence.
  - These waste collectors themselves are not in favour of being brought into the organized sector because of the numerous complications involved.
- Q 2. Which of the following is **true** about waste collectors as given in the passage?
- Majority of waste collectors are people who have migrated from their village because of some natural calamity.
  - Waste collectors prefer to sleep next to the garbage they have sorted.
  - Most waste collectors are not literate.
- Only B
  - Only A and B
  - Only C
  - All A, B and C
- Q 3. Which of the following is possibly the most appropriate title for the passage?
- The General Public's Apathetic Ways
  - The Unorganized Sector
  - The Invisible Waste
  - Waste Collectors – The World Over
- Q 4. Why according to the author, is the issue of waste collectors as important as the issue of global warming?
- As most waste collectors in big cities are children who are ultimately the future of our nation.
  - As without the waste collectors sorting waste the phenomenon of global warming would increase exponentially.
  - As Waste collectors deal with wastage which impacts the people's everyday lives and is also environmentally significant.
- Only B and C
  - Only A
  - Only A and B
  - Only C

## ➤ PASSAGE 40

**Start Time:**

**End Time:**

**Direction for questions 1 to 4:** Read the passage below and solve the questions based on it.

Indians are known for their obsessive and compulsive fascination for gold. India is the largest importer and largest consumer of the yellow metal as Indians buy about 25 per cent of the world's gold. In 2008, India imported around 400 tons of it. About 80 per cent of the world's extracted gold is **fashioned** as jewellery. However, most of us do not know or do not think about the environmental cost of the metal. For instance, extracting enough gold to **forge** a solitary, no-frills wedding band ultimately translates into roughly 20-30 tons of waste. At some mines in Nevada (USA), 100 tones or more of earth have been excavated for a single ounce of gold.

The waste is of two forms: redundant rock, which is typically piled as flat heaps in locations near the mining site and the effluent or tailings which are a



result of chemical processing of the mined ore. Sulphides in the redundant rock react with oxygen heavy metals like cyanide, cadmium lead and mercury harmful to people even at minuscule concentrations. The tailings component is typically a thick slurry laced with cyanide, aluminum, copper, lead, and mercury: enough to **decimate** fish populations of water environments it is disposed of into. Disposal of wet tailings into water bodies has been effectively banned in developed countries but it continues to be practiced in most developing nations. There is also a very real danger of surface water and groundwater table contamination on account of these heavy metals.

In fact, gold mining generates more waste per ounce than any other metal and the effects are startling. Mining for gold has left huge gouges on the face of the earth. So **massive** that they can be seen from space.

According to a study, respiratory ailments, soil and water contamination, thick blankets of dust. Withering of coconut trees and changes in land pattern use are some of the common features of the urban area around a particular gold mine in Karnataka. Many areas are reported to have become infertile because of soil contamination. They contain a percentage of heavy metals enough to retard plant growth.

Similarly, according to another report in 2008, nearly seven years after the closure of these mines, the people of this region continue to face serious environment and health problems, particularly in July and August, due to winds in these months that carry with them cyanide particles from the dust piles in the abandoned mines. When the mines were operational, a layer of red soil used to be put over these dust piles before these crucial months to prevent the cyanide particles from being carried away by the heavy winds. Now that the mines have been closed, the imitative measures have **ceased** as well.

People from socially and economically marginalized communities turn to mining to escape acute poverty, unemployment, and landlessness. In some cases, their homes and farms may be acquired for large scale gold mining. While compensation is promised to them, it may take a year or two to kick in. Till then forced to eke out a bare livelihood mostly in a kind of lottery system, they resort to crude methods to separate any flecks of gold that may be there in the discarded waste rock using mercury. In the process, destroy themselves slowly as well as their environment. The shanty towns which **inevitably** come up around the large-scale mining sites only serve to add to the problem. Given their illegal and therefore unrecognized nature, they lack basic amenities like garbage disposal and water supply and sanitation, becoming another unsightly blot on the landscape.

According to the World Gold Council, while estimates of numbers engaged in artisanal mining vary widely. They range between 13 and 20 million men, women and children from over 50 developing countries. Indeed, it is believed that as much as a quarter of the world's gold is supplied by artisanal miners. Their efforts to earn themselves a daily wage have resulted in huge habitual loss and destruction. For example, huge patches of land, once home to lush trees in the island of Borneo in Indonesia, are being swiftly rendered treeless and lifeless pits of waste. Incidentally, the island is highly famed for its rich biodiversity. Combined with heavy pressures from the logging lobby and need for cheap power through hydroelectricity and relentless mining activity. It is hard to imagine if Borneo will manage to retain its crown.

Why should these facts about gold mining bother us? After all, we just import the metal: we do not mine it here to the extent other countries do. That is about to change though. New Delhi has big plans to **fuel** growth in the mining sector and is looking to open investment in gold mining in the country – and in a big way.

However, India's environmental track record in mining has been anything but stellar. And this is something that requires close attention in light of the planned increased forays into gold mining. Even with the comparatively minuscule amounts of gold mining done so far, we have tripped up on environmental considerations.



Geologically, India's terrain is very similar to those in other parts of the world where there have been huge gold finds. What we need to do is to learn from the mistakes committed by certain developed countries in their own backyard. We have a whole series of examples of where things have gone wrong from other developing countries. We need to use these insights to our advantage and quickly.

Word Count = 913

Time Taken =

- Q 1. According to the author, how are gold mines detrimental to the environment as well as public health even after their closure?
- (a) The layer of red soil used to cover dust piles in these mines seeps into the ground water thereby making it unfit for consumption.
  - (b) The mines weaken land mass and increase the chances of occurrence of earthquakes especially after there is no one looking after them.
  - (c) The imitative measures adopted after the closure of these mines are not supervised adequately hence, are highly damaging.
  - (d) Winds in specific months carry harmful heavy metal particles from the dust heaps accumulated in these mines.
- Q 2. Which of the following is/are ill effects of gold mining as mentioned in the passage?
- A. Waste generated while mining for gold is harmful even in small quantities.
  - B. Groundwater gets polluted due to the release of heavy metals generated from the mining of gold.
  - C. Gold mining activities cause respiratory illnesses in people.
- (a) Only A
  - (b) All A, B and C
  - (c) Only B and C
  - (d) Only B
- Q 3. What is the author's intention behind writing this passage?
- (a) To discourage the Indian Government from investing in gold mining.
  - (b) To bring forward the problems associated with gold mining for India's benefit.
  - (c) To discourage Indians from buying gold based on its repercussions.
  - (d) To advocate the import of gold instead of mining of it.
- Q 4. Why according to the author, is the environmental cost of gold very high?
- (a) As gold is the only metal which generates harmful waste on its excavation.
  - (b) As excavation of gold releases the highest amount of pollutants into the air as compared to any other metal.
  - (c) As gold excavation is a very tedious process and requires usage of a number of environmentally destructive resources.
  - (d) As the amount of gold recovered in proportion to the land excavated is negligible.

# ANSWERS


**► PASSAGE 1**

Q. No.	Answer	Q. No.	Answer	Q. No.	Answer
1	(a)	2	(d)	3	(d)

**► PASSAGE 2**

Q. No.	Answer						
1	(d)	2	(d)	3	(c)	4	(d)

**► PASSAGE 3**

Q. No.	Answer	Q. No.	Answer	Q. No.	Answer
1	(b)	2	(b)	3	(b)

**► PASSAGE 4**

Q. No.	Answer						
1	(d)	2	(b)	3	(d)	4	(c)
5	(a)						

**► PASSAGE 5**

Q. No.	Answer						
1	(c)	2	(d)	3	(d)	4	(c)
5	(a)	6	(d)				

**► PASSAGE 6**

Q. No.	Answer						
1	(b)	2	(a)	3	(c)	4	(d)

**► PASSAGE 7**

Q. No.	Answer						
1	(d)	2	(d)	3	(d)	4	(b)

**► PASSAGE 8**

Q. No.	Answer						
1	(c)	2	(d)	3	(b)	4	(a)

**PASSAGE 9**

Q. No.	Answer						
1	(a)	2	(d)	3	(c)	4	(b)

**PASSAGE 10**

Q. No.	Answer						
1	(c)	2	(b)	3	(c)	4	(b)

**PASSAGE 11**

Q. No.	Answer						
1	(b)	2	(b)	3	(a)	4	(d)
5	(c)	6	(d)				

**PASSAGE 12**

Q. No.	Answer						
1	(b)	2	(d)	3	(d)	4	(c)

**PASSAGE 13**

Q. No.	Answer						
1	(d)	2	(d)	3	(b)	4	(d)
5	(c)						

**PASSAGE 14**

Q. No.	Answer						
1	(c)	2	(d)	3	(a)	4	(d)

**PASSAGE 15**

Q. No.	Answer	Q. No.	Answer	Q. No.	Answer
1	(a)	2	(b)	3	(d)

**PASSAGE 16**

Q. No.	Answer						
1	(a)	2	(d)	3	(d)	4	(d)
5	(b)	6	(d)				

**PASSAGE 17**

Q. No.	Answer						
1	(b)	2	(d)	3	(b)	4	(b)
5	(d)	6	(c)				

**PASSAGE 18**

Q. No.	Answer	Q. No.	Answer	Q. No.	Answer
1	(a)	2	(d)	3	(d)

**PASSAGE 19**

Q. No.	Answer						
1	(d)	2	(a)	3	(c)	4	(b)

**PASSAGE 20**

Q. No.	Answer						
1	(b)	2	(a)	3	(c)	4	(d)
5	(c)	6	(b)	7	(d)		

**PASSAGE 21**

Q. No.	Answer						
1	(d)	2	(b)	3	(c)	4	(c)

**PASSAGE 22**

Q. No.	Answer						
1	(c)	2	(d)	3	(d)	4	(a)

**PASSAGE 23**

Q. No.	Answer						
1	(d)	2	(d)	3	(d)	4	(d)
5	(c)						

**PASSAGE 24**

Q. No.	Answer						
1	(b)	2	(d)	3	(d)	4	(c)

**PASSAGE 25**

Q. No.	Answer	Q. No.	Answer	Q. No.	Answer
1	(d)	2	(b)	3	(a)

**PASSAGE 26**

Q. No.	Answer						
1	(d)	2	(b)	3	(d)	4	(d)
5	(c)						

**PASSAGE 27**

Q. No.	Answer						
1	(c)	2	(d)	3	(d)	4	(d)

**PASSAGE 28**

Q. No.	Answer						
1	(a)	2	(d)	3	(b)	4	(a)

**PASSAGE 29**

Q. No.	Answer						
1	(b)	2	(d)	3	(b)	4	(b)

**PASSAGE 30**

Q. No.	Answer						
1	(d)	2	(c)	3	(d)	4	(c)

**PASSAGE 31**

Q. No.	Answer						
1	(d)	2	(c)	3	(d)	4	(b)

**PASSAGE 32**

Q. No.	Answer						
1	(d)	2	(d)	3	(d)	4	(a)

**PASSAGE 33**

Q. No.	Answer						
1	(b)	2	(b)	3	(d)	4	(d)

**PASSAGE 34**

Q. No.	Answer						
1	(a)	2	(a)	3	(c)	4	(d)
5	(a)						

**PASSAGE 35**

Q. No.	Answer						
1	(a)	2	(b)	3	(d)	4	(c)
5	(d)	6	(d)				

**PASSAGE 36**

Q. No.	Answer	Q. No.	Answer	Q. No.	Answer
1	(d)	2	(a)	3	(d)

**PASSAGE 37**

Q. No.	Answer						
1	(b)	2	(d)	3	(a)	4	(d)
5	(c)						

**PASSAGE 38**

Q. No.	Answer						
1	(d)	2	(c)	3	(b)	4	(d)

**PASSAGE 39**

Q. No.	Answer						
1	(b)	2	(d)	3	(c)	4	(a)

**PASSAGE 40**

Q. No.	Answer						
1	(d)	2	(b)	3	(b)	4	(b)

## HINTS AND EXPLANATIONS



### PASSAGE 3



1. (b) Patent resulted in a commercial treatment we can say that patenting gives a boost to new ideas.
2. (b) Passage mentions both the advantages and disadvantages of patenting, hence, option (b) is the answer.
3. (b) Look at the first paragraph – it is stated that the court went against its own guidelines, hence, it can be said that the system is ad hoc.

### PASSAGE 5



1. (c) Refer to the second line: “The authenticity of democracy requires in addition that these reflective preferences influence collective outcomes and action...”
2. (d) It can be inferred from the beginning lines of the second paragraph.
3. (d) Author argues for cooperation in the last line but also says that it is never a state of cooperation alone as such.
4. (c) Refer to the second last line of the first paragraph “...trappings of a Foucauldian discourse ... do simultaneously pose through coercion a threat to an utterance as such. If democracy cannot ensure utterance as freedom and if the illocutionary forces in a discursive democracy disciplines...” This implies that it is not a strategic discourse.
5. (a) Primordial = existing from the beginning.
6. (d) “The alternative to competition, a mental-state which is out of a Desire to enjoy the ‘other’ ...” None of the given choices matches this description.

### PASSAGE 6



1. (b) Option (a) is not supported by the passage. Option (b) is mentioned in the 1st two lines. Hence, option (b) is the answer. Option (c) and option (d) are not mentioned in the passage.
2. (a) Look at the statement “...given the precarious state of democracy in most of the world.” Hence, option (a) is the answer. Option (c) is beyond the scope of the passage and option (d) is not mentioned as the reason by the author.
3. (c) Option (d) contradicts the meaning and essence, hence, cannot be the answer. We need a positive connotation word, and option (c) fits the context best out of the remaining three options. Hence, option (c) is the answer.
4. (d) Option (a) cannot be the answer as the passage highlights the other extremes as well. Option (b) cannot be the answer as passage analyses; it does not pass a judgment. Option (c) is not the answer as the scope of the passage is not restricted. Option (d) fits as it talks about the relative success of India’s democratic setup. Hence, option (d) is the answer.

### PASSAGE 19



1. (d) (a) Not given in the passage  
 (b) No data to support  
 (c) Not mentioned in the passage  
 (d) It is mentioned in the passage. Hence, option (d) is the answer.

**3.88 ◊◊ Reading Comprehension**

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2. (a) Passage says the trend got reversed later. Hence, option (a) is the answer.  
(b) Cannot be deduced.  
(c) Not mentioned in the passage  
(d) Not related to the content
3. (c) (a) It is high but not unreasonable.  
(b) It is not correct.  
(c) Fits into the context, Hence, option (c) is the answer.  
(d) Does not fit into the context.
4. (b) (a) The passage contradicts this statement, hence, it cannot be the answer.  
(b) It is indicated in the second and third paragraph.  
(c) It was partly successful, hence, this option cannot be the answer.  
(d) It was not a big success, hence, this option cannot be the answer.



# PART

# 4

## LOGICAL REASONING

- 
- **MODULE 1**  
Understanding Logical Reasoning
  - **MODULE 2**  
Practising Logical Reasoning
  - **MODULE 3**  
Logical Reasoning A Day
- 

# **MODULE**

**1**

# **UNDERSTANDING LOGICAL REASONING**



- Introduction to Logical Reasoning
- Developing the Skills
- Logical Links
- Sequencing and Arrangement
- Team Selection
- Miscellaneous

# 1

# Introduction to Logical Reasoning



## LEARNING Objectives

1. Logic as tool for inference
2. The strength of logical argument
3. Logic and decision making
4. Applying logic

Human life is full of situations where one is called to make a decision. This also includes making significant choices about what to believe and what not to. Although everyone prefers to believe what is true, we often disagree with each other about a particular issue due to the subjective nature of our judgements. We often find individuals or groups locked in conflict because our reactions to situations are guided by our impulses. Humankind has developed a mechanism through which we are able to move beyond our individualistic and idiosyncratic notions and establish indisputable facts. This mechanism is called Logical Reasoning and Logic has come to play a very important role in ascertaining what is more credible or whose reasoning is sounder.

It is imperative to understand that Logic is not mainly concerned about finding the ‘Truth.’ Logic’s prime interest lies in finding that, which can be established as a fact using several strands of reasoning supported by sophisticated arguments. It may seem like a big coincidence that the event or situation that is correct will have more substantial proofs or arguments in its favour, rather than the even or situation that is not so

For example, if we are discussing about the direction from which the sun rises, we will always have more proofs or stronger arguments in favour of east rather than west.

However, if somehow we get more proofs or stronger reasoning in favour of south, then it is more logical to say that the sun rises from south than to say that it rises from east.

An important application of the logic is in the area of law and the judicial system—an area where proceedings are heavily dependent on logical processes—of any civilized society. The following example tells a lot about the logic and its constituents:

While pronouncing his verdict in one of the most sensational murder cases in India, the judge said, “Though I know that this is the man who committed the crime, I acquit him, giving him the benefit of doubt.”

What is the judge saying?

Even though he knows that the defendant is indeed the culprit, the fact has not been proven, that is, it cannot be logically deduced on the basis of arguments and evidence; consequently the accused has to be acquitted.

Despite the above example some authoritativeness can indeed be attached to the way of logical reasoning. No matter how sceptical we are about the points from where we begin to reason, if we follow the rules of logic we will reach an acceptable conclusion. It is almost always possible to distinguish between correct from incorrect reasoning

#### 4.4 ◇◇ Understanding Logical Reasoning

independent of our agreements or disagreements regarding substantive matters. Logic is the discipline that studies the distinction—both by determining the conditions under which the truth of certain beliefs leads naturally to the truth of some other belief, and by drawing attention to the ways in which we may be led to believe something without the respect for its truth. This provides no guarantee that we will always arrive at the truth, because the beliefs or assumptions with which we begin are sometimes erroneous. But following the principles of correct reasoning does ensure that no additional mistake creeps in during the course of our progress.

Hence, Logic can be seen as a tool using which we find out the strength of reasoning or the various arguments put forward in favour of or against something. This is reflected in the origin of the word ‘logic’. It takes its roots from the Greek work *logos* which means reason or principle. Taking a broad view, we can see several dimensions, or usages of the term logic. Some of these are given below:

1. A system of reasoning: Aristotle’s logic.
2. A mode of reasoning: By that logic, we should sell the company tomorrow.
3. The formal, guiding principles of a discipline, school, or science.
4. The relationship between elements and between an element and the whole in a set of objects, individuals, principles, or events: There’s a certain logic to the motion of rush-hour traffic.
5. In the field of Computer Science the term, logic, may mean any of the following:
  - a. The non-arithmetic operations performed by a computer, such as sorting, comparing, and matching, that involve yes-no decisions.
  - b. Computer circuitry.
  - c. Graphic representation of computer circuitry.

Terms related to Logic:

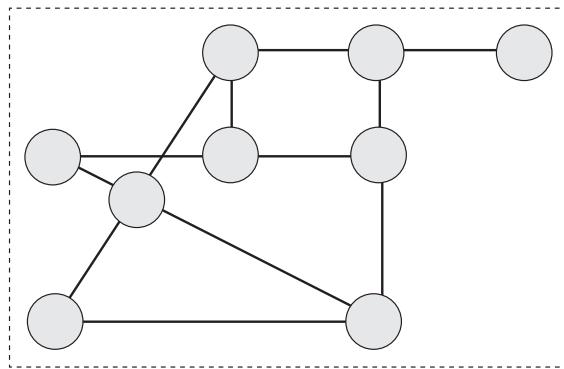
1. Consistency—An attribute of a logical system that is so constituted that none of the propositions deducible from the axioms contradict one another.
2. Completeness—This is an attribute of a logical system that is so constituted that a contradiction arises if any proposition is introduced that cannot be derived from the system.
3. Corollary—An inference that follows directly from the proof of the another proposition.
4. Non sequitur—A conclusion that does not follow from the premises.
5. Subject—The first term of a proposition.
6. Predicate—What is predicted about the subject of a proposition.
7. Proof—A formal series of statements given showing that if something is a fact, then something else necessarily follows from it.
8. Paradox—A self contradiction (As in the statement—‘I always lie’ is a paradox.)
9. Postulate—A declaration of something self evident.

10. Proposition—A statement that affirms or denies something and is either true or false.
11. Negation—A proposition that is true if and only if another proposition is false.
12. Axiom—A proposition that is always true and does not require proofs or disproofs to be true.
13. Tautology—A statement that is always necessarily true (As in the statement—‘He is honest or he is not honest.’)
14. Contradiction—Opposite of Consistency.
15. Logical relation—A relation between propositions.
16. Inductive Reasoning—Proceedings from particular facts to a general conclusion.
17. Deductive reasoning—Proceedings from general facts to a particular conclusion.

### ➤ REASONING QUESTIONS AND PUZZLES

#### ■ Puzzle 1

Put the digits from 1 to 9 into the given circles so that the sum of the numbers in each straight line is the same.



#### ■ Puzzle 2

Our local town hall has a clock which strikes on the hour and also strikes just once on the half hour. While I was awake the other night, I heard the clock strike once, but I could not tell what time it was. Half an hour later it struck once again, but I still could not tell what time it was. Finally, half an hour later it struck once again and I knew what the time was. What time was it?

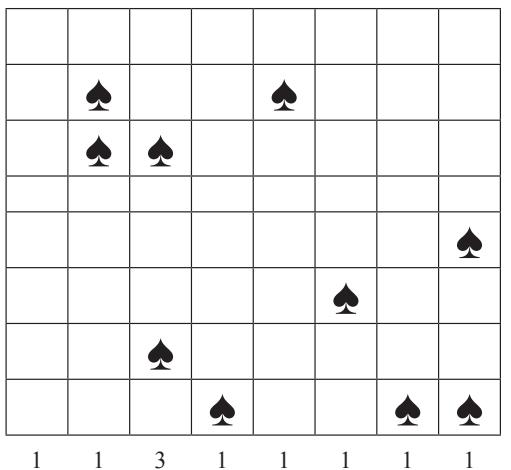
#### ■ Puzzle 3

You are running in a marathon and you overtake the person in second place, what position are you now in?

#### ■ Puzzle 4

Tree-Tent is a logical game (similar to minesweeper) in which the aim is to identify all tents in the grid. Each tree is exactly connected to only one tent. A tent can be found in a horizontally

or vertically adjacent square of a tree. The tents are never placed adjacent to each other, neither vertical, horizontal, nor diagonal. The numbers outside the grid give the total number of tents in the corresponding row or column. A tree might be next to two tents, but is only connected to one, and vice versa. Find all the tents.



### Puzzle 5

Find the highest total—you can only move up or right—using the mathematical signs coming on the way.

+	4	-	2	+	2
2	+	2	-	2	+
-	1	+	2	-	4
2	-	1	+	1	-
+	1	-	2	+	3
3	+	3	-	4	+

### Puzzle 6

In the above question, if we can move up and left only, then what is the maximum sum that we can get?

### Puzzle 7

Abhishek said that he was born on 29 February 1900. What birthday will he celebrate in the year 2000?

### Puzzle 8

During a recent police investigation, IG Khan was interrogating five criminals—A, B, C, D and E—to try and identify who is the culprit. Below is a summary of their statements:

- A: it was not E  
it was B
- B: it was not C  
it was not E

- C: it was E  
it was not A
- D: it was C  
it was B
- E: it was D  
it was not A

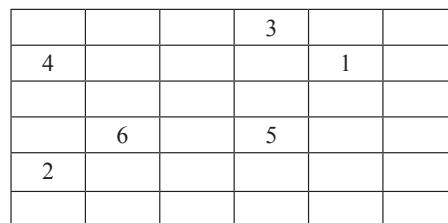
It was well known that each suspect told exactly one lie. Can you determine who the criminal is?

### Puzzle 9

At the local school, I was chatting to my sister's friends and noticed a number of things. Jessica has mousey coloured hair and the girl with black hair was wearing a green dress. Lucy is not blonde and Lauren does not have brown hair, Chloe was wearing a blue dress. The blonde girl was not wearing red and Lauren was not wearing green. I cannot remember which girl was wearing a yellow dress. Can you determine the colours of the girl's dresses and their hair?

### Puzzle 10

Draw a continuous line that travels in order from 1 to 6. You can only move horizontally and vertically, the line must not cross itself and every square is visited.



### Puzzle 11

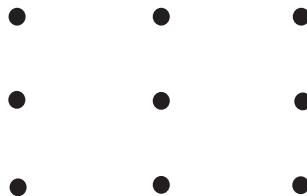
A bank customer had Rs 100 in his account. He then made 6 withdrawals, totalling Rs 100. He kept a record of these withdrawals, and the balance remaining in the account, as follows:

Withdrawals (Rs)	Balance left (Rs)
50	50
25	25
10	15
8	7
5	2
2	0
100	99

When he added up the columns as above, he assumed that he must owe Re 1 to the bank. Was he right?

**Puzzle 12**

Can you draw exactly 4 straight lines that pass through ALL 9 spots, without removing your pen from the paper?



□ **Puzzle 13**

In a football syndicate, the winnings amounted to Rs 7657. There were more than 30 people in the syndicate but less than 100. Each won exactly the same number of rupees and no paise were involved. How much did each win?

**Puzzle 14 to 16**

Here is a snippet of curious multiple-choice entrance examination.



## □ Puzzle 17

If yesterday was Saturday's tomorrow and tomorrow was Wednesday's yesterday, what day would it be today?

**Puzzle 18 to 20**

**Directions for questions 18 to 20:** Read the passage given below and solve the questions based on it.

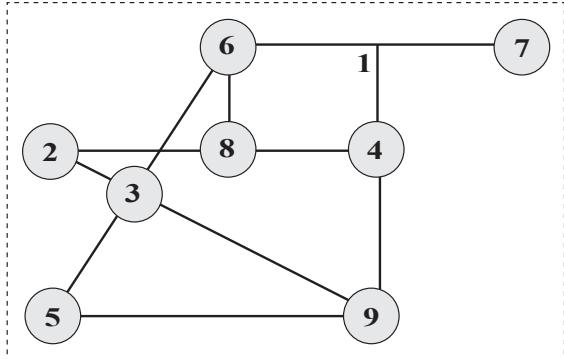
In a shooting competition, a person is allowed to shoot at four targets successively, followed by the next shooter. When all the shooters have finished one such round, the process is repeated. If a target is hit, the shooter gets 2 points and if he misses the target, the other shooters are awarded one point each. The first shooter to get 60 points wins the shooting competition. In a contest among three persons—Akhil, Bharat and Chand, their score at the end is as follows:

Akhil = 60, Bharat = 53 and Chand = 43.

Out of a total of 78 shots being fired, only 43 hit the target.

18. Who was the first to shoot?  
(a) Akhil  
(b) Bharat  
(c) Chand  
(d) Cannot be determined
  19. Who was the second to shoot?  
(a) Akhil  
(b) Bharat  
(c) Chand  
(d) Cannot be determined
  20. Who was the third to shoot?  
(a) Akhil  
(b) Bharat  
(c) Chand  
(d) Cannot be determined

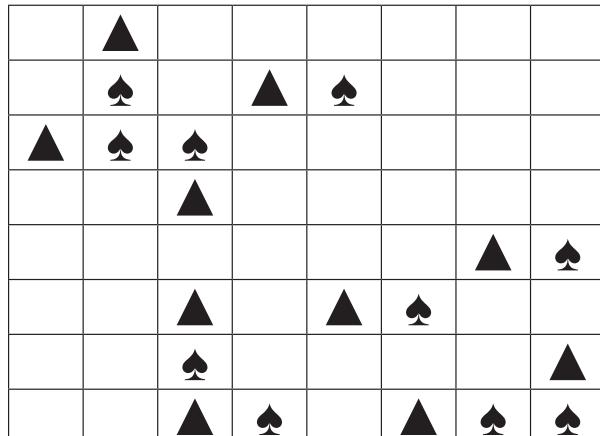
# ANSWERS

**Puzzle 1****Puzzle 2**

1:30 in the morning. The initial single strike was at 12:30.

**Puzzle 3**

If you think that you are now in first place, then think again! If you overtake the person in second place, you are now in second place yourself.

**Puzzle 4****Puzzle 5**

+	4	-	2	+	2
2	+	2	-	2	+
-	1	+	2	-	4
2	-	1	+	1	-
+	1	-	2	+	3
3	+	3	-	4	+

**Puzzle 6**

+	4	-	2	+	2
2	+	2	-	2	+
-	1	+	2	-	4
2	-	1	+	1	-
+	1	-	2	+	3
3	+	3	-	4	+

**Puzzle 7**

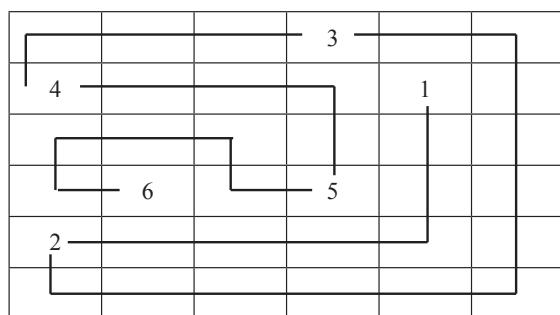
Abhishek was lying, 1900 was not a leap year.

**Puzzle 8**

C committed the terrible crime. The way to solve this puzzle is to look at each clue. We know that exactly one of each person's statements is true. Looking at A statement, let's check to see 'it was B' is true? If 'it was B' is true, then we know the other statement is false, hence, it was E. This is a contradiction. Hence, we now know it was not B, nor E (as 'it was not E' must be the true statement). Looking at C statement, we can similarly, determine that it was not A either. E statement gives us that it was not D, which leaves only C as the culprit.

**Puzzle 9**

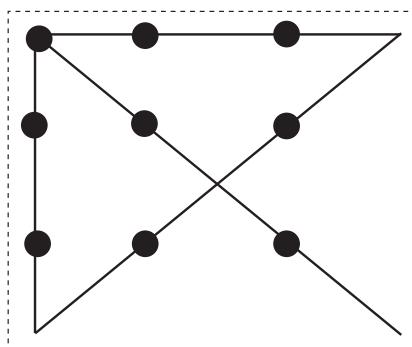
Name	Dress colour	Hair colour
Jessica	Red	Mousey
Lauren	Yellow	Blonde
Lucy	Green	Black
Chloe	Blue	Brown

**Puzzle 10**

### Puzzle 11

There is no reason whatever why the customer's original deposit of Rs 100 should equal the total of the balances left after each withdrawal. The total of withdrawals in the left-hand column must always equal Rs 100, but it is purely a coincidence that the total of the right-hand column is close to Rs 100.

### Puzzle 12



### Puzzle 13

31 Each one won Rs 247.

### Puzzle 14 to 17

14. Option (c)
15. Option (a)
16. Option (b)
17. Monday

### Puzzle 18 to 20

**Scenario**—The problem set given above involves many facts—the scheme of firing shots, the way the points are awarded, the number of shots fired and the number of shots hitting the target.

**Observation**—After going through the setup given above, following points should come of the surface:

- i. One round of firing involves 12 shots being fired, four shots by each shooter.
- ii. Since 12 shots are being fired in one round, so a total of 72 shots are being fired in six such rounds. Out of the 72 shots, 24 shots have been fired by each of them. Now, in the next six shots, 4 shots must have been fired by the person who was the first person to shoot and rest two must have been fired by the person who was the second person to shoot.
- iii. So, total number of shots fired by the 1st person  
= 28

$$\text{Total number of shots fired by the 2nd person} = 26$$

$$\text{Total number of shots fired by the 3rd person} = 24$$

**Problem**—Besides the problems given in the question set, let us raise some more pertinent points regarding this set:

- i. Since Akhil was the first on to get 60 points, can we assume that Akhil was the first one to shoot? If yes, then why and if no, then why?
- ii. Since Bharat was the second ranker, can we assume that Bharat was the second one to shoot? If yes, then why and if no, then why?

**FLAW DETECTOR**—While operating on the surface only gives us an idea that Akhil was the first one to shoot because he got 60 points first, it also gives us the reason why we get this conclusion—because we were operating on surface only.

**Understand the points scheme**—A person can get points without hitting any target or even without firing shots. As it is given that two points are awarded for a hit and one point is awarded to the opponents in case of a miss. It might be a possibility that Akhil would have got 59 points or 58 points or so in his round, and then other shooters go to shoot, they miss and in turn Akhil gets the point, and thus he gets 60 points.

And otherwise also, a deep thinking tells us that game ends with second shooter (because a total of 78 shots are fired), so Akhil could be at best second shooter and not the first shooter.

**Explanation**—As we have discussed above also, this question set involves many facts and hence, lets make some equations.

	Hits	Miss	Points
Akhil	A	b	$2a + d + f$
Bharat	C	d	$2c + b + f$
Chand	E	f	$e2 + b + d$

We are using six variables above, so we need to have six equations to solve this set. Let us make the equations:

$$\text{Points scored by Akhil} = 2a + d + f = 60 \quad \dots\dots(i)$$

$$\text{Points scored by Bharat} = 2c + b + f = 53 \quad \dots\dots(ii)$$

$$\text{Points scored by Chand} = e2 + b + d = 43 \quad \dots\dots(iii)$$

$$\text{Total hits} = a + c + e = 43 \quad \dots\dots(iv)$$

$$\text{Total misses} = b + d + f = 35 \quad \dots\dots(v)$$

Till now we have been able to construct only five equations. Since we have used all the given information, we cannot have a sixth equation directly from the given set. Hence, we will introduce the 'hypothetical equations' now that will work as 6th equation.

Assume that Akhil is the first one to start,  
so  $a + b = 28 \quad \dots\dots(vi)$

Doing (i) – (v) gives us:  $2a - b = 25 \quad \dots\dots(vii)$

Adding (vi) and (vii),

$3a = 53$ , since we are not getting the integral value of ' $a$ ' from here, we would conclude that (vi)th equation  $a + b = 28$  is not a valid equation and so Akhil is not the first one to shoot.

Similarly, assuming Bharat to be the first one to shoot gives us:  $c + d = 28$  .....(viii)

Solving equation (ii) and equation (v),  $2c - d = 18$  .....(ix)

Adding equation (viii) and equation (ix),  $3c = 46$ . Again we are not getting the integral value of c from here, so Bharat is not the first one to shoot.

Obviously, it means Chandan is the first one to shoot. Let us check that also:

If Chandan is the first one to shoot then,  $e + f = 28$  .....(x)  
Solving equation (iii) and equation (v),  $2e - f = 8$  .....(xi)

Adding equation (x) and equation (xi),  $3e = 36$ , so,  $e = 12$ .

Similarly, to find out the second shooter, we will insert, one by one, an additional equation besides the above given 5 equations, by assuming that Akhil is the second one to shoot (and hence,  $a + b = 26$ ). If it does not satisfy the given conditions, then we will construct the additional equation by assuming Chandan to be the second shooter (and hence,  $c + d = 26$ ).

**Alternative Solution**—The more the number of variables, the more difficult the solution will be.

Let us reduce some variables and start directly from the ‘hypothetical equation’ itself.

Assume that the total number of hits by the first one to shoot =  $N$ , so total number of misses by him =  $28 - N$ .

So, total number of misses by the other two shooters =  $35 - (28 - N) = N + 7$

[Total number of shots fired by all the shooters = 78 and total hits by all the shooters = 43, so total number of misses by all the shooters = 35]

So, the points scored by the first person to shoot = 2  
 $N + N + 7 = 3N + 7$

Now, if Akhil is the first one to shoot, then  $3N + 7 = 60 \Rightarrow 3N = 53$

Since no integral value of  $N$  is obtained from here, so Akhil is not the first one to start.

Again, if Bharat is the second one to shoot, then  $3N + 7 = 53 \Rightarrow 3N = 46$

We are not getting integral value of  $N$ , so Bharat is not the first one to shoot.

Hence, Chandan is the first one to shoot.

Let us verify that:

If Chandan is the first one to shoot, then  $3N + 7 = 43 \Rightarrow 3N = 36 \Rightarrow N = 12$

Now to find the second person to shoot, assume that the total number of hits by the second shooter =  $M$ , so total number of misses by him =  $26 - M$ .

So, total number of misses by the other two shooters =  $35 - (26 - M) = M + 9$

Or, the points scored by the second person to shoot =  $2M + M + 9 = 3M + 9$

If Akhil is the second one to shoot, then  $3M + 9 = 60 \Rightarrow 3M = 51 \Rightarrow M = 17$

Hence, Bharat is the second one to shoot.

18. Option (c)
19. Option (a)
20. Option (b)

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# 2

# Developing the Skills



## LEARNING Objectives

1. What constitutes Logical Reasoning
2. Different types of Logical Reasoning questions
3. Skill set required to excel in Logical Reasoning
4. Approach to solve the questions

### ➤ CONSTITUENTS OF LOGICAL REASONING

Before we move on to solving the questions, it is very imperative that we understand the constituents of the Logical Reasoning Questions and at the same time the skill-sets required to crack them.

Logical reasoning questions are designed to measure the students' ability to understand the structure of relationships and to draw conclusions from it. Students will be asked to make deductions from a set of statements, conditions or rules that describe the relationships among various variables such as persons, places, things or events. These questions simulate the kinds of detailed analyses of relationships that management students must perform in solving problems. Additionally, they require the ability to reason clearly and deductively from a given set of rules or restrictions; all under a strict time frame.

Each logical reasoning question contains three separate parts:

- (i) Scenario
- (ii) Rules and
- (iii) Question/s

### Scenario

The scenario introduces a set of variables—people, places, things or events involved in an easy to understand activity such as sitting in seats or singing songs.

Here is an example:

A postman has to deliver exactly seven letters—N, O, P, Q, R, S and T on seven days of a week; not necessarily in the same order. The seven deliveries must be made according to certain conditions.

In the above situation, there are two variable sets—the letters N, O, P, Q, R, S and T and seven different delivery positions, which would be numbered 1 through 7 for the different days of the week.

In the above situation, there are two variable sets—the letters N, O, P, Q, R, S and T and seven different delivery positions, which would be numbered 1 through 7 for the different days of the week.

### Rules

The scenario is followed by a series of rules or conditions which impose specific restrictions upon the relationships

among the subjects. Rules can also be seen as a set of statements that describe the relationships between the variables. An LR set may include as few as two or as many as ten rules or may be more. Besides, these rules or conditions specify the relationship between the different variables.

Here are the rules that accompanied the above given LR set:

- (i) Letter P and Letter O have to be delivered on consecutive days.
- (ii) The postman cannot deliver letter O and letter S on consecutive days.
- (iii) Letter T has to be delivered on the fourth day of the week.
- (iv) The postman has to deliver S and N both before delivering letter Q.
- (v) It is also given that Monday is assumed to be the first day of the week.

Rules also help us in providing a proper sequence of events or arrangement of several variables involved in the question. We will discuss more about ‘Sequencing and Arrangement’ in Chapter 4 of this section.

## ■ Questions

The rules are followed by a series of questions about the relationships defined by the conditions. The questions call for a deductive analysis and a right correspondence between the scenario and the rules. This third and final part of any LR set, tests the students’ knowledge about the relationships between the variables, the structural features of the given set, and the way these relationships and features change as the conditions in the set change.

As in QA problems, one and only one response can be proven beyond any doubt to be the correct one. In CAT, the number of questions per set normally ranges from one to six, although CAT does not follow certain pattern.

All initial rules or conditions are applied to all the questions given thereof. However, sometimes a particular question might introduce something new after suspending the parent information. Hence, students are expected to consider each question separately from the other questions. Do not carry over information provided in any particular question to the other questions.

Some of the sample questions pertaining to the above LR set are as follows:

- Q 1. Which of the following lists an acceptable order of deliveries of letters?
  - (a) NQPTOSR      (b) POSTRNQ
  - (c) NRSTPQO      (d) RSOTNPQ
- Q 2. Which of the following is a complete list of the days on which letter O could be delivered?
  - (a) Wednesday, Friday
  - (b) Wednesday, Friday, Sunday
  - (c) Wednesday, Thursday, Friday
  - (d) Any day of the week except Saturday

- Q 3. Which of the following cannot be true?
  - (a) Letter Q is delivered on Wednesday
  - (b) Letter Q is delivered on Friday
  - (c) Letter R is delivered on Wednesday
  - (d) Letter S is delivered on Tuesday

We will go through the solution of the questions given above after discussing the Skills set required to excel in the Logical Reasoning section.

## ➤ SKILL-SET REQUIRED

We have understood and observed till now that the LR questions test the following:

- Command of the details given.
- Formal deductive abilities.
- Understanding of how rules limit and order behavior, and
- Ability to cope up with many pieces of data simultaneously to solve the problems.

In my experience of dealing with a good number of students, most of them already have these skills, the problem lies with the fact that they probably have not acquired the know-how to apply these skills to their best advantage in the rarified atmosphere of a standardized time-bound skills-based test.

While discussing the various skills required, we will assume that a student has no prior background of solving these kinds of questions and owing to this; he/she is almost at a very basic level.

## ■ Skill 1—Understanding the Information

This simply means that, “Are you able to decipher the different kinds of statements given?”

Let us have a look at these statements:

- (i) Game B must be played on the day following the day on which game F is played.
- (ii) Game D must be staged on Sunday and is not to be immediately preceded by game B.
- (iii) The population of Maharashtra is followed by the population of Bihar whereas population of Orissa is preceded by the population of Bihar.

Which of the following options is least likely to be wrong?

Obviously, the above written statements are just a part of any particular LR set, but play an important role in making a sequence of events. Besides, there can be a few questions, which by virtue of juggling with the words, can become difficult to comprehend within that time-bound test ambience. This can best be understood by looking at a few examples with their proper explanations.

Sometimes just for the sake of making a statement difficult to understand, the test makers start playing with the words, as seen in the following example:

**Statement (i)** – There are three cottages in a row and three friends A, B and C are living in these cottages, one person in each cottage. The cottage of A is in between the cottages of B and C.

**Statement (ii)** – There are three cottages in a row facing south and three friends A, B and C are living in these cottages one person in each cottage. When A, B and C are standing in front of their houses facing north, A makes a statement that cottage of one of B and C is on his right and another cottage is on his left.

**Statement (iii)** – There are three cottages in a row numbered 1 through 3 and three friends A, B and C are living in these cottages, one person in each cottage. A finds that his cottage number is less than the cottage number of one of his friends.

We do understand that the interpretation of all the three statements is the same, i.e., the order of their cottages being—BAC or CAB.

At the same time, we should understand some of the basic statements pertaining to the questions. To answer these questions, we should focus on the nature of the right and wrong answer choices:

<b>Question reads as ...</b>	<b>Its meaning ...</b>
Which one of the following statements could be true?	A statement that could be true. The remaining wrong choices will be statements that cannot be definitely true. (i.e., statements that must be false)
Which one of the following statements cannot be true?	A statement that cannot be true (must be false). The remaining wrong choices will be the statements that can either be definitely true or at least could be true.
Which one of the following statements must be true?	A statement that must be true. The remaining wrong choices will be statements that either cannot be true or only could be true.
All of the following statements could be true EXCEPT ...	A statement that cannot be true. The remaining wrong choices will be statements that either could be true or are definitely true.
All of the following statements must be true EXCEPT ...	A statement that either cannot be true or merely could be true. The remaining wrong choices will be statements that must be true.
Which one of the following statements could be false?	A statement that cannot be true or could be true or false. The remaining wrong choices will be the statements that must be true.
Which one of the following statements must be false?	A statement that cannot be true. The remaining wrong choices will be the statements that are either definitely true or only could be true.
Which of the following statements is least likely to be wrong?	A statement that is true. The remaining options will be false.

## □ Skill 2—Diagramming the Information

This is the most important stage of solving any LR set. This particular skill in itself requires the students to be aware of various factors related to the scenario and the rules, such as:

- What kind of diagram viz., table or line diagram, etc. is the most best suitable for the given set.
- How many variables are there in the set and out of the given variables, which of the variables are most helpful in making the diagram and representing the rules and the scenario.

Ideally in case of two variables, the work done in creating the setup and making inferences will be sufficient to answer the question. But the problem starts surfacing when the number of variables increases to three or more. We will

discuss more about the variables and the way to use them to our benefit later in this chapter.

Besides the given data in the LR set, sometimes the questions which supply a new piece of information specific to that question alone, also tend to help us in achieving a complete diagram. And this is the reason why students should do this diagramming work next to the question itself, if enough space is available. This provides you several benefits:

- By doing the work next to the problem, you increase the visual connection between your diagram and the LR set.
- If you need to come back to a question, when you return you will be able to clearly see the work done up to that point.

There are two approaches that are widely propagated and used to form a diagram. Let us look at the pros and cons related to the approaches:

## □ Approach 1

### Do the work for each question on the main diagram

This approach suggests that the work for each question should be done on the main diagram itself. In order to utilize this method, you must erase your previous work before beginning each question. However erasing your work has a number of negative effects too: you could accidentally erase important information that applies to all the questions and more importantly, every time you erase your work you lose some of the knowledge that you created about the game.

Rather what I would suggest as a thumb rule: do not erase any work that you have done unless you have made a mistake.

## □ Approach 2

### Create a “grid” and do the work for each question in the rows within the grid

This approach requires you to create a grid near the main setup. The work for each question is then done within the rows of the grid, as follows:

Questions/Scenario or conditions	1	2	3	4	5
Q 1	A	B	C		
Q 2	B	A			C
Q 3		D	E	A	D

After going through the above discussion, we can conclude that:

- Drawing the grid along with the main setup requires a large amount of space, which might not be always available in the test paper. In contrast, doing the work next to the question is space-efficient.
- In case of LR sets with less than four variables, working next to the question is always efficient, as it allows you to draw the most appropriate diagram for the given scenario.

Lastly, since the LR sets asked in the CAT are too dynamic in nature, the proper use of scratch work is an important pre-requisite.

## ▣ Skill 3—Sequencing the Information to get the Answer

Uptill now we have understood how the given variables can be arranged in a proper structure. Before moving on to the actual problem solving of two or more variables, we have now reached a stage (theoretically) where the given information is to be used to solve the LR set. The idea is to focus on what the question requires of you, before starting the solving process.

Remember some of the very basic rules:

- Always pay special attention to the sequencing aspect in every set. Many questions are answered just by thinking, “What things are left? Where can (or must) they be placed and at which position?”
- Many a times it will happen that we do not fully grasp a LR situation. In such cases keep asking yourself questions and go through a couple of “what ifs?” to keep the LR set going. Whenever you are in a fix, ask yourself, “What if it goes here? What does that mean for the other things?” Even if you do not get any help from this, but it is still time worth spent because it helps you to understand the LR set better.
- The best way to deal with any LR set is to build it directly into a diagram from the given information. Sometimes, the students are expected to fill some of the unoccupied places on their own by assuming something. Then it becomes essential to segregate the given information in the LR set with your assumed information. You can do it by encircling the data assumed by you.
- While assuming some information on your own, always keep an eye on the options provided along with the question. Sometimes you might get a lot of help from the options as well.
- Remember that the test-maker has scattered the easy, the moderate and the difficult questions across the entire paper in no proper order. So, solve the question which you find the easiest first, and not the one which is Q 1.

## ➤ MANAGING THE VARIABLES

Let me clarify at the onset, that the variables which we are talking about here are not the same as the mathematical variables. Rather, what we mean to say is that the word variable here represents all the entities, be it the name of a place, a person or the days; a book which they might have been reading or practically anything given in the LR set. Additionally there will be some rules or conditions encompassing these variables. And as it is correctly said, “Our variables are our resources”; similarly, we should use the variables given to us in our questions, in the same way.

Understandably, a LR set can have two or more variables. Let us see some examples:

### □ Example 1: Two variable LR set

Six plays, viz., *Ram teri Ganga maili*, *Satya*, *Don*, *Bakri.com*, *Andha Mughal* and *Angrezo Bharat aao*, are to be staged, one on each day starting from Monday to Saturday.

In the above written statement, which can also be the opening statement of an LR set, we see that there are two sets of variables:

- (A) Six plays and
- (B) Six days as six different positions

Now according to the given conditions, we will be establishing the correspondence between these plays and the days on which they can happen.

### □ Example 2: Three variable LR set

There are five men working in *Due North Inc.* namely A, B, C, D and E. Their respective salaries are different and they are married to five women namely F, G, H, I and J.

In this situation, there are three sets of variables:

- (A) Five men working in an organization.
- (B) Their respective salaries which are different.
- (C) Their wives, which are of course different.

Before plotting the diagram for the above set, the most important thing to remember here is the fact that we can establish direct correspondence on paper, only between two variables, and so the third variable is to be kept in the mind. Now, to choose the two variables out of the given three variables, we should keep an eye on the rules or the given conditions. The more the conditions related to a particular variable are given, the more the chances are of it being taken as one of those two variables which are to be used in the diagram on the paper.

### □ Example 3: More than three variable LR set

Five men from five different states of India work in a factory and each of them performs a different job. Each man commutes to work using a different mode of transport and most work on different shifts. There are three shifts—1st shift, 9 am–12 noon; 2nd shift, 12 noon–3 pm and 3rd shift, 3 pm–6 pm. All the people working on the same shift come at the same time.

How many variables are there in the above LR set?

Let us count:

- (A) 1st variable – five men
- (B) 2nd variable – five states
- (C) 3rd variable – different job
- (D) 4th variable – mode of transport
- (E) 5th variable – work-shift

We do understand that most of the time managing fewer variables is easier than managing more variables.

From here we will start with LR sets of two variables and then move on to the LR sets of a higher number of variables.

One thing I would like to reiterate—Please do not just read this book; rather, sit with a pen/pencil and paper and before going through the solution of any LR set, give it a try.

## ➤ HOW TO APPROACH LR

In this section, we will learn the method of solving LR questions keeping in mind various do's and do not.

### □ Problems in Two Variables

**Directions for questions 1 to 4:** Read the following passage and solve the questions based on it.

There are five boxes viz., T, U, W, X and Z, to be delivered on five consecutive days, Monday through Friday one box

per day. The following conditions are to be kept in mind while formulating the delivery schedule of the boxes:

- (i) Box X is not delivered on Monday
- (ii) If box T is delivered on Monday, then box X must be delivered on Friday.
- (iii) If box X is delivered on Tuesday, box U is delivered on Monday.
- (iv) Box W is delivered the day following the day of the delivery of box Z.

Q 1. Box W could be delivered on any day except:

- (a) Monday
- (b) Tuesday
- (c) Wednesday
- (d) Thursday

Q 2. If box U is delivered the day after the box T is delivered, which of the following is a complete and accurate list of the days on which box X could be delivered?

- (a) Tuesday, Wednesday, Thursday
- (b) Wednesday, Thursday, Friday
- (c) Tuesday, Wednesday, Friday
- (d) Wednesday, Friday

Q 3. If box W is delivered on Wednesday, which of the following could be true?

- (a) Box U is delivered on Friday
- (b) Box X is delivered on Tuesday
- (c) Box X is delivered before box T
- (d) Box X is delivered before box U

Q 4. If the box U is delivered on Wednesday, which of the following must be true?

- (a) Box W is delivered before box T
- (b) Box T is delivered before box X
- (c) Box T is delivered before box U
- (d) Box X is delivered before box W

### Solution

#### Scenario

There are two sets of variables—1st set being five boxes and 2nd set being five days Monday through Friday.

As the boxes must be delivered in these five days, so one box is to be delivered everyday.

#### Rules

**There are two sets of rules given here:**

- (A) Strict sequencing rule—These are the rules which give us the exact position of the variables.
- (B) Loose sequencing rule—These are the rules which give us the relative positioning of one variable with respect to the other variable, without giving the exact position. We will discuss about sequencing in Chapter 4 of this section.

**Now lets interpret the rules:**

- **Box X is not delivered on Monday—This is a strict sequencing rule.**

#### 4.16 ⇔ Understanding Logical Reasoning

If box T is delivered on Monday, then box X must be delivered on Friday.

This is a loose sequencing rule which introduces further conditions related to the delivery of box T and box X. But we should be very clear about certain facts related to this statement:

- (i) If box T is not delivered on Monday, then box X can be delivered on any day. (except Monday)
- (ii) If box X is not delivered on Friday, then box T cannot be delivered on Monday.

##### ■ If box X is delivered on Tuesday, box U is delivered on Monday.

This is again a loose sequencing rule which introduces conditions related to the delivery of box X and box U. This statement also means that if U is not delivered on Monday, then X is not delivered on Tuesday.

Box W is delivered the day following the day of the delivery of box Z.

This is also a loose sequencing rule which introduces conditions related to the delivery of box W and box Z. It simply means that Z – W will be consecutive in the same order.

For the sake of establishing the rules clearly in our mind, we should write it as follows:

- X – Not on Monday .....(Rule 1)
- T (Monday) then – X (Friday) .....(Rule 2)
- X (Tuesday) then – U (Monday) .....(Rule 3)
- Z – W .....(Rule 4)

And then the five places:

Monday Tuesday Wednesday Thursday Friday

Ans. 1. (a) Since box W is to be delivered on the day immediately after the day on which box Z is delivered, box W cannot be delivered on Monday.

Ans. 2. (d) Box U is to be delivered the day after box T. So, the order is: T – U. This is the second such pair after Z – W which is to be accommodated into the 5-days schedule.

Now start visualizing the days for X to be delivered:

Monday – Not possible

Tuesday – Not possible, otherwise one of the pairs from T – U and Z – W will be required to split up.

Wednesday – If X is to be delivered then one of the pairs will be delivered on Monday – Tuesday and other pair on Thursday – Friday with either box T being delivered on Monday/Thursday or box Z being delivered on Monday/Thursday.

Now, T cannot be delivered on Monday otherwise X will be delivered on Friday (Rule 2).

If T is delivered on Thursday, then U will be delivered on Friday and compulsorily, Z will be delivered on Monday and W on Tuesday.

This delivery schedule is in accordance with the given rules. So, box X can be delivered on Wednesday.

Thursday – Not possible, otherwise one of the pairs from T – U and Z – W will be required to split up.

Friday – If X is to be delivered then one of the pairs will be delivered on Monday – Tuesday and other pair on Wednesday – Thursday with either box T being delivered on Monday/Wednesday OR box Z being delivered on Monday/Wednesday.

The following delivery schedule scheme can be followed:

Monday – T	Tuesday – U
Wednesday – Z	Thursday – W
Friday – X	

Hence, box X can be delivered on either Wednesday or Friday.

Ans. 3. (c) Let us make the diagrams:

Monday Tuesday Wednesday Thursday Friday  
W

If W is on Wednesday, then Z will be on Tuesday.

Monday Tuesday Wednesday Thursday Friday  
Z W

Checking the options:

Option (a). Box U is delivered on Friday.

We are left with three boxes T, U and X and three days—Monday, Tuesday and Friday.

Now let us take the stock of the situation now:

For Monday—X cannot be delivered on Monday, so X has to be delivered on either Thursday or Friday.

If T is delivered on Monday, then X will be delivered on Friday and consequently, U on Thursday.

If U is delivered on Monday, then the rest two will be delivered on the remaining two days.

So, Box U cannot be delivered on Monday.

Option (b) We can eliminate this option very easily.

Monday Tuesday Wednesday Thursday Friday  
Z W

Option (c)

Monday Tuesday Wednesday Thursday Friday  
Z W

Now moving ahead from here:

If U is delivered on Monday, then X and T can be delivered on Thursday and Friday respectively.

Hence, option (c) could be true.

Work for students: Check the veracity of option (d).

Ans. (a) Box U is delivered on Wednesday.

Monday Tuesday Wednesday Thursday Friday  
U

Now, Z will be delivered on either Monday or Thursday.

Monday Tuesday Wednesday Thursday Friday ... (1)

Z W U  
OR

Monday Tuesday Wednesday Thursday Friday ... (2)  
U Z W

We can see that (2) is not possible, because T has to be delivered on Monday (X cannot be delivered on Monday) and in that case X should be delivered on Friday, which is not possible.

So, (1) has to be true. T and X can be interchangeably delivered on Thursday or Friday without violating any condition.

So, option (a) is definitely true.

This question can be used to generate a set of new questions as well. One such question could have been made by replacing “must be” with “could be”. Of course in that case, more than one option would have become true out of the given four options.

However two variables LR set questions should be seen more as ‘Sequencing and Arrangement’ questions. We will discuss more about this in Chapter 4.

## ■ Problems in Three Variables

**Directions for questions 5 to 6:** Read the following passage and solve the questions based on it.

- (i) Six men—Rajesh, Dinesh, Lokesh, Nilesh, Shailesh and Himesh work in different companies, namely P, Q, R, S, T and U, and each one wears a company-sponsored different coloured tie, i.e., Brown, Green, Pink, Yellow, Purple and Red, though not necessarily in the same order.
- (ii) The one wearing a Brown tie works in company S and the one wearing a Green tie works in company P.
- (iii) Himesh does not work in company R or T.
- (iv) Rajesh wears a Pink tie and works in company Q.
- (v) Nilesh does not work in company T and a Purple colour tie is not given by the company R.
- (vi) Shailesh works in company U and neither Nilesh nor Dinesh works in the company S.
- (vii) Company T does not sponsor Purple or Yellow coloured ties and Lokesh works in company P.

- Q 5. Which colour tie is given by the Company R?
- (a) Cannot be determined
  - (b) Brown
  - (c) Green
  - (d) None of these
- Q 6. Which of the following “colour of tie-company-person” combinations is correct?
- (a) Green-R-Nilesh
  - (b) Brown-S-Lokesh
  - (c) Red-T-Dinesh
  - (d) Yellow-R-Shailesh

### Solution

#### Scenario

There are three variables involved in this question set: Name of the person, company and the colour of tie.

- There are six persons—Rajesh, Dinesh, Lokesh, Nilesh, Shailesh and Himesh.
- There are six organizations—P, Q, R, S, T and U.
- There are six coloured ties—Brown, Green, Pink, Yellow, Purple and Red.

### Rules

Using the rules, we can make the following table:

Tie	Company	Name
Brown	S	Himesh
Green	P	Lokesh
Pink	Q	Rajesh
Purple	U	Shailesh
Yellow	R	Nilesh
Red	T	Dinesh

Ans. 5. (d) The colour of the tie provided by the company R is Yellow. Hence, option (d) is the answer.

Ans. 6. (c) Obviously, the answer is option (c).

## ■ Problems in More Than Three Variables

**Directions for questions 7 to 8:** Read the following passage and solve the questions based on it.

Five men from five different states work in an office and each of them performs a different work. Each comes to the office using a different mode of travel and most work on different shifts (There are three shifts; the second shift starts after the first shift and ends before the third shift). All the five persons working in the same shift come at the same time.

- (i) Hari, who is not from West Bengal (WB), does not walk to work.
- (ii) Narayan is not a GL.
- (iii) The man who works in the third shift and whose name is not Javed does not use the bus.
- (iv) Simon, who is not from UP, uses a bicycle to go to work. He is not a technician.
- (v) The man from Karnataka is not called Narayan and he comes to work after the assembler but before Abbas.
- (vi) The man from Bihar and the person who walks, both work on the first shift.
- (vii) The GL comes to work before the man who uses the train.
- (viii) Javed comes to work after the man from Gujarat but before the man who uses a scooter.
- (ix) Narayan and the man who uses the bus work on the same shift.

#### 4.18 ✦✦ Understanding Logical Reasoning



Q 8. Which of the following statement(s) is (are) true?

- I. The GL comes by bus and the assembler walks to work.
- II. The stock clerk comes by bus and the tester by train.
- III. The stock clerk comes by scooter and the technician by train.
- IV. The assembler comes by bicycle and the tester by train.

(a) I and III only    (b) II only  
(c) I only            (d) None

### *Solution*

## *Scenario*

We have already seen that this question set is of 5 variables.

1st variable – Five men

2nd variable – Five states

### 3rd variable – Different job

#### 4th variable – Mode of travel

### 5th variable – Work-shift

- (A) The five persons are—Hari, Narayan, Simon, Javed and Abbas.
  - (B) The five modes of travel are—Bus, Walk, Bicycle, Train and Scooter.
  - (C) The five states are—Bihar, UP, WB, Karnataka and Gujarat.
  - (D) The five works are—GL, Assembler, Tester, Technician and Stock Clerk.
  - (E) The three shifts are—1st shift, 2nd shift and 3rd shift.

## Rules

There are two major bottlenecks with this problem set:

- Most of the statements given in the beginning have a negative connotation.
  - A total of eleven statements are given.

Ideally, in these types of situations where a good amount of information is given, we should first go through all the statements and then find out the statement with the maximum concrete facts.

Let us first make a table denoting all the variables:

	<i>Shift</i>	<i>State</i>	<i>Work</i>	<i>Mode of Travel</i>
Hari				
Narayan				
Simon				
Javed				
Abbas				

Statement (v)	Karnataka – 2nd shift Neither Abbas nor Narayan Assembler – 1st shift Abbas – 3rd shift
Statement (viii)	Javed – 2nd shift Gujarat – 1st shift Scooter – 3rd shift
Statement (vi)	Bihar – 1st shift Walk – 1st shift
Statement (x)	UP – 2nd shift Tester – 2nd shift
Statement (iv)	Narayan – 1st shift Bus – 1st shift

What deductions can we make from the above statements?

Deduction 1 – Since there are five persons and two persons each are coming in the 1st shift and 2nd shift, so we can conclude that only one person is coming in the 3rd shift. We will do more deductions after filling up the space for the person who comes in the 3rd shift.

Abbas - 3rd shift - Scooter - Stock Clerk (Using statement xi)

However we are still not sure about the state to which Abbas belongs. Let us find it out through the process of elimination:

Possible states – Bihar, UP, WB, Gujarat, Karnataka  
Possible state for Abbas:

Statement (x)	Statement (v)
Bihar,	UP,
WB,	Gujrat,
Karna	
Statement (vi)	Statement (viii)

Hence, West Bengal is the only possibility for Abbas.

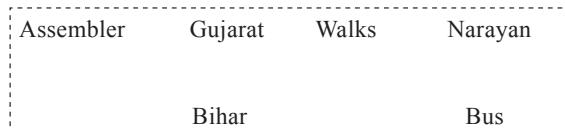
Let us fill the table with the newly acquired information:

	<i>Shift</i>	<i>State</i>	<i>Work</i>	<i>Mode of Travel</i>
Hari				
Narayan	1st	Gujarat/ Bihar		Bus/Walk
Simon				
Javed				
Abbas	3rd	WB	Stock Clerk	Scooter

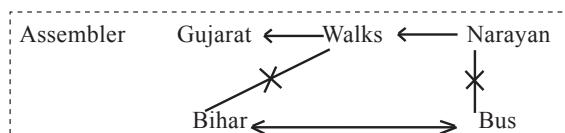
We can fill up some more blanks above with the various possibilities (as we did in the case of Narayan's state).

Now we have a good amount of information regarding the persons working in the first shift:

1st shift:



Thus, we can have the following arrangement:

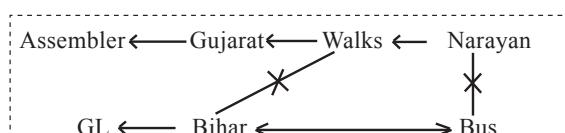


Still we are not sure if Narayan is an assembler or not? To find it out, we will go to some other unused statements. Let us use statement (vii):

Statement (vii): GL – 1st shift

Train user – 2nd shift (Because person who commutes by train cannot come in 3rd shift, as Abbas is coming in 3rd shift).

Using statement (ii), Narayan is not a GL, so he has to be an Assembler.

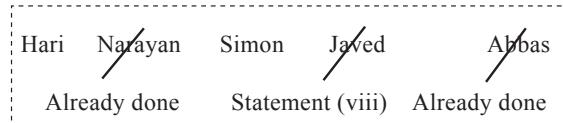


Let us fill up the table with the new information again:

	<i>Shift</i>	<i>State</i>	<i>Work</i>	<i>Mode of Travel</i>
Hari				
Narayan	1st	Gujarat	Assembler	Walk
Simon				

	<i>Shift</i>	<i>State</i>	<i>Work</i>	<i>Mode of Travel</i>
Javed				
Abbas	3rd	WB	Stock Clerk	Scooter

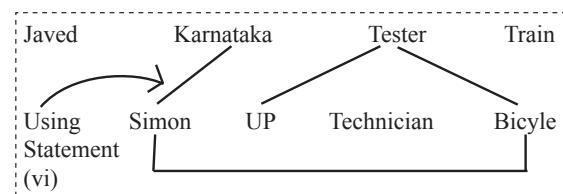
To find out the 2nd person working in 1st shift, now we will use the process of elimination:



The possible options for the 2nd person is either Hari or Simon. Using statement (iv), Simon comes on a bicycle. However, the 2nd person working in the 1st shift comes by bus. So, Simon is not possible in the 1st shift. Hence, Hari is the 2nd person coming in the first shift.

	<i>Shift</i>	<i>State</i>	<i>Work</i>	<i>Mode of travel</i>
Hari	1st	Bihar	GL	Bus
Narayan	1st	Gujarat	Assembler	Walk
Simon				
Javed				
Abbas	3rd	WB	Stock Clerk	Scooter

Now we are left with the variables attached to only the 2nd shift. Let us write them one by one:



Hence, the final table is:

	<i>Shift</i>	<i>State</i>	<i>Work</i>	<i>Mode of travel</i>
Hari	1st	Bihar	GL	Bus
Narayan	1st	Gujarat	Assembler	Walk
Simon	2nd	Karnataka	Tester	Bicycle
Javed	2nd	UP	Technician	Train
Abbas	3rd	WB	Stock Clerk	Scooter

## ➤ PRACTICE EXERCISE 1

**Directions for questions 1 to 5:** Read the following passage and solve the questions based on it.

- (i) Six students P, Q, R, S, T and U are in different branches of Engineering viz., IT, Mechanical, Chemical, Electrical, Metallurgy and Electronics but not necessarily in the same order.
  - (ii) Each of them is a resident of a different city viz., Mumbai, Kolkata, Chennai, Patna, Hyderabad and Bangalore. R is the resident of Patna but he is not in chemical or electrical. T, who is in mechanical, is not a resident of Mumbai or Hyderabad. Q is from Kolkata and he is in electrical. The student from Chennai is in electronics; S is from Mumbai; P is in metallurgy.
- Q 1. Which of the following is not the correct combination of student and subject?  
 (a) P-Metallurgy    (b) Q-Electrical  
 (c) U-Electronics    (d) S-IT
- Q 2. Which student is from Chennai?  
 (a) R    (b) U  
 (c) S    (d) T
- Q 3. Which city does P belong to?  
 (a) Chennai    (b) Kolkata  
 (c) Hyderabad    (d) Cannot be determined
- Q 4. Which student is from Bangalore?  
 (a) T    (b) Q  
 (c) S    (d) T or P
- Q 5. Which subject is being studied by R?  
 (a) Electronics  
 (b) Mechanical  
 (c) Metallurgy  
 (d) None of these

**Directions for questions 6 to 10:** Read the following passage and solve the questions based on it.

- (i) Five friends P, Q, R, S and T travelled to five different cities, Chennai, Kolkata, Delhi, Bangalore and Hyderabad, by five different modes of transport, bus, train, airplane, car, and boat, from Mumbai.
  - (ii) The person who traveled to Delhi did not travel by boat.
  - (iii) R went to Bangalore by car and Q went to Kolkata by airplane.
  - (iv) S travelled by boat whereas T travelled by train.
  - (v) Mumbai is not connected by bus to Delhi and Chennai.
- Q 6. Which of the following combinations of person and mode is not correct?  
 (a) T-Airplane    (b) R-Car  
 (c) S-boat    (d) P-Bus
- Q 7. Which of the following combinations is true for S?  
 (a) Chennai-bus    (b) Chennai-boat  
 (c) Delhi-bus    (d) Cannot be determined

- Q 8. Which of the following combinations of place and mode is not correct?  
 (a) Chennai-boat    (b) Kolkata-airplane  
 (c) Hyderabad-bus    (d) Delhi-bus
- Q 9. The person travelling to Delhi went by which of the following modes?  
 (a) Bus    (b) Train  
 (c) Airplane    (d) Car
- Q 10. Who among the following travelled to Delhi?  
 (a) T    (b) S  
 (c) R    (d) Cannot be determined

**Directions for questions 11 to 15:** Read the following passage and solve the questions based on it.

Six persons Amar, Bijay, Chetan, Disha, Esha and Farukh took up a job with an organization in a week from Monday to Saturday. Each of them joined for different posts on different days. The posts were of—clerk, officer, technician, manager, supervisor and sales executive, though not necessarily in the same order.

Farukh joined as a manager on the first day. Bijay joined as a supervisor but neither on Wednesday nor Friday. Disha joined as a technician on Thursday. Chetan joined the firm as an officer on Wednesday. Esha joined as a clerk on Tuesday. Amar joined as a sales executive.

- Q 11. Who joined the firm on Wednesday?  
 (a) Bijay  
 (b) Chetan  
 (c) Bijay or Chetan  
 (d) Cannot be determined
- Q 12. Who was the last person to join the firm?  
 (a) Esha    (b) Farukh  
 (c) Amar    (d) Bijay
- Q 13. On which of the following days did the Sales Executive join?  
 (a) Tuesday    (b) Thursday  
 (c) Saturday    (d) Friday
- Q 14. Which of the following is correctly matched regarding the posts and day of joining?  
 (a) Manager – Tuesday  
 (b) Officer – Wednesday  
 (c) Clerk – Thursday  
 (d) Technician – Monday
- Q 15. Who joined on Wednesday?  
 (a) Chetan    (b) Clerk  
 (c) Amar    (d) Manager

## ➤ PRACTICE EXERCISE 2

**Directions for questions 1 to 2:** Read the following passage and solve the questions based on it.

- (i) Six books on different subjects, viz., History, Geography, English, Hindi, Economics and Psychology, are arranged in a pile (not necessarily in the same order).

Each book belongs to different persons whose names are Debasis, Harsh, Vishwas, Ravi, Sanjay and Neeta.

- (ii) English book, which is kept on the top, belongs to Debasis, Psychology book, which is kept at the bottom does not belong to Sanjay or Ravi.
  - (iii) Economics book belongs to Harsh and is kept immediately below Hindi.
  - (iv) History book is immediately above Geography and immediately below Economics. Hindi book belongs to Neeta and History book belongs to Ravi.

- Q 1. Whom does the Psychology book belong to?  
(a) Neeta                   (b) Vishwas  
(c) Harsh                  (d) Cannot be determined

Q 2. Which book is fourth from the bottom?  
(a) History               (b) Geography  
(c) Economics           (d) Hindi

**Directions for questions 3 to 6:** Read the following passage and solve the questions based on it.

- (i) Mr Sharma has five sons—A, K, S, R and N. While going for a party, they wore different coloured shirts viz., Red, Yellow, Blue, White and Green (not necessarily in the same order).
  - (ii) Each one of them has different likings viz., reading, playing, traveling, singing and writing in no particular order.
  - (iii) K, who has a liking for singing, does not wear a yellow shirt. S wears a red shirt and does not like reading or writing. N likes to play and does not wear a blue or yellow shirt. A has a liking for writing and R does not wear a yellow or green shirt.

- Q 3. What is the colour of K's shirt?  
(a) White                    (b) Green  
(c) Blue                    (d) Data inadequate

Q 4. Who has a liking for reading?  
(a) R                        (b) A  
(c) K                        (d) Data inadequate

Q 5. Which of the following combination of son-colour of shirt-liking is correct?  
(a) R – Blue – reading  
(b) N – White – playing  
(c) A – Yellow – writing  
(d) N – Green – playing

Q 6. For how many sons can the colour of shirt be definitely determined?  
(a) 1                        (b) 2  
(c) 3                        (d) 4

**Directions** for questions 7 to 10: Read the following passage and solve the questions based on it.

There were ten papers in the last year 10th standard CBSE examination. Following guidelines have been issued to schedule the examination:

- (i) Examination board has organized the examinations for ten papers viz., A, B, C, D, E, F, G, H, I and J on six

days of the week with a holiday on Sunday; not having more than two papers on any of the days.

- (ii) Examination begins on Wednesday with paper F.
  - (iii) D is accompanied by some other paper but not on Thursday. A and G are on the same day immediately after the holiday.
  - (iv) There is only one paper on the last day and Saturday. B is immediately followed by H, which is immediately followed by I.
  - (v) C is on Saturday. H is not on the same day as J.

- Q 7.** Examination for which of the following pairs of papers is on Thursday?



- Q 8. Examination for which of the following papers is on the next day of D?



- Q 9. Examination for which of the following papers is on the last day?



- Q 10. Examination for paper F is on the same day as which of the following papers?



**Directions** for questions 11 to 15: *Read the following passage below and solve the questions based on it.*

There are seven professors A, B, C, D, E, F and G teaching seven subjects History, Geography, Physics, Chemistry, Mathematics, Biology and English from Monday to Friday at Gaya College. Each professor teaches a different subject and not more than two subjects are taught on any one of the days.

- (i) Chemistry is taught by professor B on Tuesday.
  - (ii) Professor D teaches on Friday but neither Geography nor Physics.
  - (iii) Professor F teaches History but neither on Thursday nor on Friday.
  - (iv) Professor A teaches English on the day on which History is taught.
  - (v) Professor C teaches Mathematics on Monday.
  - (vi) Geography and Chemistry are taught on the same day.
  - (vii) Professor G teaches on Thursday.

- Q 11. On which of the following days is English taught?  
(a) Wednesday      (b) Monday  
(c) Tuesday      (d) Cannot be determined

- Q 12. Which of the following subjects is taught by professor G?

- (a) Biology                          (b) Geography  
(c) Physics                           (d) Chemistry

- Q 13. On which of the following days is Geography taught?

- (a) Monday      (b) Tuesday  
 (c) Wednesday    (d) Thursday

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Q 14. Which subject is taught on Friday?

- (a) Physics
- (b) History
- (c) Geography
- (d) Biology

Q 15. Which of the following pairs of professors teaches on Tuesday?

- (a) B and D
- (b) A and B
- (c) B and F
- (d) None of these

**Directions for questions 16 to 18:** Read the following passage and solve the questions based on it.

- (i) Seven friends P, Q, R, S, T, U and W have gathered at the Patna airport. However, only five of them are scheduled to go to five different places Delhi, Chennai, Lucknow, Bangalore and Kolkata.
- (ii) Five of them are executives with specializations in Administrative (Admn), Human Resource Management (HRM), Marketing, Systems and Finance.
- (iii) T is an executive and he is going to Chennai and his specialization is neither Finance nor Marketing.
- (iv) W is a system specialist and is going to Delhi. U is an executive but is not going anywhere.
- (v) Q is an executive with specialization in HRM but has come at the airport to see his friends only.
- (vi) P is an executive but not from Marketing and is going to one of the destinations but not to Bangalore or Kolkata.

Q 16. Who among the following specializes in Marketing?

- (a) S
- (b) P
- (c) U
- (d) Cannot be determined

Q 17. What is the specialization of R?

- (a) Finance
- (b) Marketing
- (c) Either Marketing or Finance
- (d) None of these

Q 18. Who is going to Bangalore?

- (a) R
- (b) S
- (c) P
- (d) Cannot be determined

**Directions for questions 19 to 20:** Read the following passage and solve the questions based on it.

(i) Six men B, D, C, M, J and K are split in two groups of three each and are made to stand in two rows, such that a man in one row is exactly facing a man in the other row.

(ii) M is not at the ends of any row and is to the right of J, who is facing C. K is to the left of D, who is facing M.

Q 19. Which of the following groups of men are in the same row?

- (a) BMD
- (b) MJK
- (c) BDC
- (d) None of these

Q 20. Who is to the immediate left of B?

- (a) M
- (b) D
- (c) J
- (d) Data inadequate

# ANSWERS



## ► PRACTICE EXERCISE 1

Q. No.	Answer						
1	(d)	2	(b)	3	(c)	4	(a)
5	(d)	6	(a)	7	(b)	8	(d)
9	(b)	10	(a)	11	(b)	12	(d)
13	(d)	14	(b)	15	(a)		

## ► PRACTICE EXERCISE 2

Q. No.	Answer						
1	(b)	2	(c)	3	(d)	4	(a)
5	(c)	6	(b)	7	(a)	8	(b)
9	(c)	10	(d)	11	(a)	12	(c)
13	(b)	14	(d)	15	(d)	16	(c)
17	(d)	18	(d)	19	(d)	20	(a)

## HINTS AND EXPLANATIONS

## ► PRACTICE EXERCISE 1



### Solution to Q1 to 5:

Student	Place	Branch
R	Patna	Chemical, Electrical (x)
T	Mumbai, Hyderabad (x)	Mechanical
Q	Kolkata	Electrical
	Chennai	Electronics
S	Mumbai	
P		Metallurgy

The following bold letters can be filled easily with the given information.

Student	Place	Branch
R	Patna	IT
T	Bangalore	Mechanical
Q	Kolkata	Electrical
U	Chennai	Electronics

Student	Place	Branch
S	Mumbai	Chemical
P	Hyderabad	Metallurgy

### Solution to Q6 to 10:

P	Hyderabad-bus
Q	Kolkata-airplane
R	Bangalore-car
S	Chennai-boat
T	Delhi-train

### Solution to Q11 to 15:

Person	Posts	Days
Farukh	Manager	Monday
Bijay	Supervisor	Saturday
Disha	Technician	Thursday
Chetan	Officer	Wednesday
Esha	Clerk	Tuesday
Amar	Sales executive	Friday

## PRACTICE EXERCISE 2



### Solution to Q1 and 2:

1.	English	Debasis
2.	Hindi	Neeta
3.	Economics	Harsh
4.	History	Ravi
5.	Geography	Sanjay
6.	Psychology	Vishwas

### Solution to Q3 to 6:

Son	Colour of Shirt	Likes
A	Yellow	Writing
K	White/Blue/Green	Singing
S	Red	Traveling
R	Blue/White	Reading
N	Green/White	Playing

3. (d) White or Blue or Green

### Solution to Q7 and 10:

Wed	Thu	Fri	Sat	Mon	Tue
F, B	H, E	I, D	C	A, G	J

### Solution to Q11 to 15:

Seven professors are: A, B, C, D, E, F and G.

Seven subjects are: History, Geography, Physics, Chemistry, Mathematics, Biology and English. Subjects are taught on Monday, Tuesday, Wednesday, Thursday and Friday.

From statements (i), (v) and (vii), we get the following:

Table 1

Person	Subject	Day
B	Chemistry	Tuesday
C	Mathematics	Monday
G	—	Thursday

Now, with the help of (ii), (iii), (iv) and (vi) we get the following table:

Table 2

Person	Subject	Day
B	Geography	Tuesday
	Chemistry	Tuesday
C	Mathematics	Monday
G	—	Thursday
D	—	Friday
F	History	—
A	English	—

From Table 2, it is obvious that E teaches Geography on Tuesday.

Now, we know that History and English are not taught on Tuesday, Monday, Thursday and Friday. Hence, History and English are taught on Wednesday.

Again from Table 2, it is obvious that D teaches either Physics or Biology. But from Ans. (ii) D does not teach Physics. Hence, D teaches Biology.

So, using elimination techniques, G teaches Physics.

Hence, the obtained information can be summarized as below:

Table 3

	Person	Subject	Day
1.	E	Geography	Tuesday
2.	B	Chemistry	Tuesday
3.	C	Mathematics	Monday
4.	G	Physics	Tuesday
5.	D	Biology	Friday
6.	F	History	Wednesday
7.	A	English	Wednesday

### Solution to Q16 to 18:

Using the given information, we get the following:

Person	Specialization	Destination	
T	Finance, Marketing (✗)	Chennai	...(i)
W	Systems	Delhi	...(ii)
U		Going nowhere	...(iii)
Q	HRM	Going nowhere	...(iv)
P	Marketing (✗)	Bangalore, Kolkata (✗)	...(v)

It is given that there are five destinations. Using (i), (ii) and (v) we can definitely determine that:

P – Lucknow

Now, there are five executives.

Using (i), (ii) and (iv)

T – A – Chennai

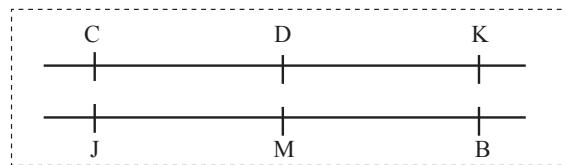
Now, P – F – Lucknow

Now, the only remaining field of specialization can be allotted to U.

Hence, U – M – Going nowhere

So, the remaining two friends R and S are not executives but are going either to Bangalore or to Kolkata.

**Solution to Q19 and 20:**



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# 3

# Logical Links

## LEARNING Objectives

1. What is Logical Link
2. Different types of Logical Links and their meanings
3. Inclusive vs exclusive meaning of Logical Links
4. Different types of questions
5. Approach to solve the questions

While discussing Logic in Chapter 1, we understood how Logic helps us in understanding and examining every proposition/statement. However, in order to construct the formal rules of inference we need to take care of some of the very common ‘words’, which we define as Logical Links. It is to be understood very clearly that these words alone cannot work as Logical Links.

These Logical Links help us in examining the reversibility of logic, too.

### ➤ WHAT DO WE UNDERSTAND BY LOGICAL LINKS?

Before we move ahead, let us consider some statements which will help us in getting a clear picture of Logical Links in our mind:

- If it rains then the farmers will be happy.
- Either my party will secure majority in the parliament or my government will resign.
- If India does not win a gold medal in chess in the Doha Asian Games, then Indians will not be happy.

- If America mobilizes or Britain protests to the UN, then China will call for a meeting of all the Asian countries.

In all the given statements, there are one or two key words playing the maximum role in deciding the direction and nature of the statement like, if the statement has a negative connotation or it brings an element of uncertainty or causes a concern or brings some conditionality.

In the first example, the combination “If – then” is working like a conditional clause. In the second example, the combination “either – or”, in the third example, the combination “If not – then” and similarly, in the fourth statement, the combination “If – then” works as a Logical Link.

### ➤ HOW DO WE DEFINE A LOGICAL LINK?

Statements like “I will go to watch a movie” or “She will go to a picnic” are known as simple statements. Now we can join these two simple statements in a number of ways:

- Either I will go to watch a movie or she will go to a picnic.
- If I go to watch a movie, then she will go to a picnic.
- If I go to watch a movie, only then will she go to a picnic.

Or, if we allow a bit of change in the nature of statements then statements could be seen as follows too:

- If I go to watch a movie, then she will not go to a picnic.
- If I do not go to watch a movie, then she will go to a picnic.
- If I do not go to watch a movie, then she will not go to a picnic.
- If I do not go to watch a movie, only then will she not go to a picnic.
- If I go to watch a movie, only then will she not go to a picnic.

After we have joined the simple statements, we call these statements Compound Statements. And the words which we use to join two simple statements are known as Logical Links.

## ➤ **SOME STANDARD LOGICAL LINKS AND THEIR USAGES**

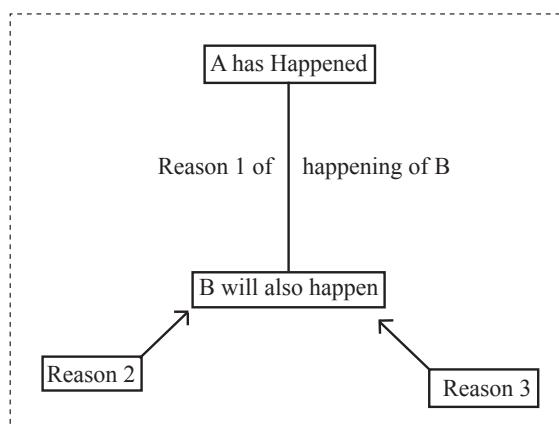
### **A. If – then**

“If – then” is one of the most important Logical Links. Its usage includes the affirmative as well as the negative statement. Following are some of the structured applications of this Logical Link:

### **□ If A happens then B happens**

Given – A has happened.  
Conclusion – B will happen.  
This is a valid conclusion.

See this through the following diagram:



### **□ Example 1**

- Q 1. If the terrorists' demands are met, then lawlessness will prevail.  
Given – The terrorist's demands have been met.  
Conclusion – Lawlessness will prevail.

### **□ If A happens then B happens**

Given – A has not happened.  
Conclusion – B will not happen.  
This is an invalid conclusion.

Using the diagram given above, despite A has not happened, B might happen owing to the occurrence of either reason 2 or reason 3 etc.

### **□ Example 2**

- Q 2. If the terrorists' demands are met, then lawlessness will prevail.  
Given – The Terrorist's demands have not been met.  
Conclusion – Lawlessness will not prevail.  
This is an invalid conclusion.

### **□ Example 3**

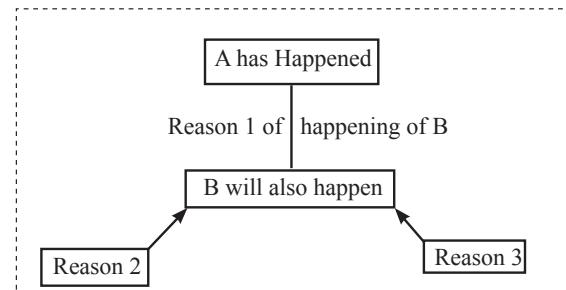
- Q 3. If you fall down from the roof, then your legs will get fractured.  
Given – You have not fallen down the roof.  
Conclusion – Your legs will not get fractured.

This is an invalid conclusion. What we should understand here is the fact that falling down the roof is just one of the ways by which the legs can get fractured and there can be other ways also of the legs getting fractured, e.g., meeting with an accident or getting beaten up, etc. And just because you have not fallen down the roof, we cannot be sure that the legs have not got fractured.

### **□ If A happens then B happens**

Given – B has happened.  
Conclusion – A would also have happened.  
This is an invalid conclusion.

Once again go through the same diagram:



Obviously B can happen due to reason 2 or reason 3 also and is not dependent on ‘reason 1 only’.

### **□ Example 4**

- Q 4. If you fall down from the roof, then your legs will get fractured.  
Given – Your legs have got fractured.

Conclusion – You have fallen down the roof.  
This is an invalid conclusion.

Again, going through the explanation given above, we know that falling down the roof is not the only reason for the legs getting fractured. So just because the legs have got fractured, we cannot conclude that a person has fallen down the roof.

### □ Example 5

Q 5. If it rains, then farmers become happy.  
Given – Farmers are happy.  
Conclusion – It must have rained.  
This is an invalid conclusion.

We do understand that farmers can have more than one reason for being happy, and having rain is just one of them. So, if farmers are happy we cannot definitely conclude that it must have rained.

### □ If A happens then B happens

Given – B has not happened.  
Conclusion – A would also not have happened.  
This is a valid conclusion.

### □ Example 6

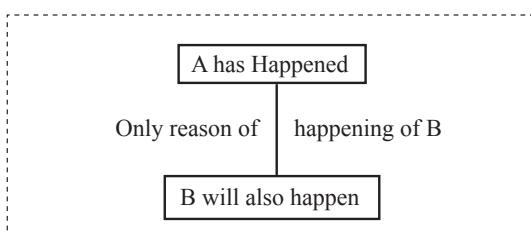
Q 6. If you fall down from the roof, then your legs will get fractured.  
Given – Your legs have not got fractured.  
Conclusion – You have not fallen down from the roof.  
This is a valid conclusion.

Understand this—You give a contract to a goon to make Mr A fall down from the roof tonight and as a result Mr A's legs will automatically get fractured. But the next morning you see Mr A walking and looking perfectly all right. He can walk like this because his legs are not fractured, so the direct response will be—The goon has not done his job of making Mr A fall down from the roof. With this a lot many accidents might not have happened with Mr A, but he must not have fallen down the roof too.

### □ If A happens only then B happens

Given – B has happened.  
Conclusion – A would also have happened.  
This is a valid conclusion.

See the diagram for this:



### □ Example 7

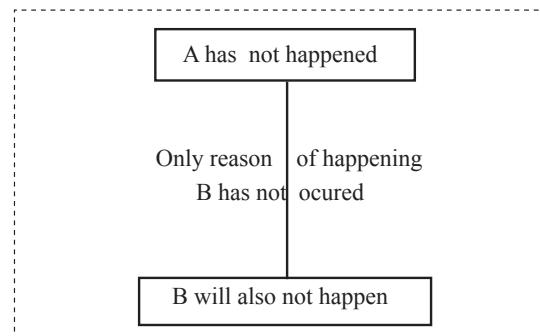
Q 7. If you die, only then you go to heaven.  
Given – You have gone to heaven.  
Conclusion – You have died.  
This is a valid conclusion.

Here, the only way in which a person can go to heaven is to die. So, if a person has gone to heaven, he must have died too.

### □ If A happens only then B happens

Given – A has happened.  
Conclusion – B will also happen.  
This is an invalid conclusion.

See the diagram for this:



### □ Example 8

Q 8. If you die only then you go to heaven.  
Given – You have not died.  
Conclusion – You will not go to heaven.  
This is a valid conclusion.

### □ Example 9

Q 9. If you die only then you go to heaven.  
Given – You have died.  
Conclusion – You will go to heaven.

This is an invalid conclusion. However, the conclusion “You may go to heaven” is valid.

Sometimes we can even see that two compound statements have been joined with multiple Logical Links. One such statement can be:

If A happens, then B happens. If A does not happen then C happens. So what will be the impact on C if A has happened/A has not happened?

Let us understand this situation with an example:

### □ Example 10

Q 10. If the terrorists' demands are met, then lawlessness will prevail. And if the terrorists' demands are not met, then the hostages will be murdered.

Consider the statements given below:

- (i) Lawlessness has not prevailed.
- (ii) The hostages have been murdered.
- (iii) The terrorists' demands have been met.
- (iv) The terrorists' demands have not been met.

Which of the following options does not show a proper cause-effect relationship?

- |            |           |
|------------|-----------|
| (a) i-ii   | (b) iv-ii |
| (c) iii-ii | (d) ii-iv |

Let us take the options one by one:

#### **Option (a) i-ii**

Since lawlessness has not prevailed (i), it means that the terrorists' demands have not been met. And if the terrorists' demands have not been met, then the hostages will be murdered (ii). So, this option shows a valid relationship.

#### **Option (b) iv-ii**

Since the terrorists' demands have not been met, the hostages will be murdered. This is a direct conclusion. So, it is a valid relationship.

#### **Option (c) iii-ii**

Since the terrorists' demands have been met, lawlessness will prevail. Now, from here we cannot deduce that the hostages will be murdered. So, it is not a valid relationship.

#### **Option (d) ii-iv**

Since the hostages have been murdered, the terrorists' demands must not have been met. So, this is also a valid relationship.

Hence, option (c) is not a valid cause-effect relationship.

### **B. Either – or**

We use a lot many statements involving “Either – or” as a logical link in our day-to-day life too. In case of reasoning questions also, we see very similar statements with very similar interpretations. However, for a proper understanding, we should be very clear with the structure of these statements. Some of these structured statements are given here under.

There are two situations possible here:

- **Inclusive** It means ‘and/or’ where at least one term must be true or they can both be true simultaneously. This is the case of set  $A \cup B$ , where any member of this set ( $A$  union  $B$ ) should be present in at least one of the sets.
- **Exclusive** It means one must be true and the other must be false. Both terms cannot be true and both cannot be false.

The popular English language concept of or is often ambiguous between these two meanings, but the difference is pivotal in evaluating the Logical Link questions asked in CAT.

Understand this argument:

- Either P or Q.
- Not P.

Therefore, Q is valid and indifferent between both inclusive and exclusive meanings. However, only in the ‘exclusive’ meaning is the following form valid:

Either P or Q (exclusive).

P.

Therefore, not Q.

With the ‘inclusive’ meaning, we cannot draw a definitely true conclusion from the situation given above.

Remember, for the purpose of CAT we have to consider the statements in their ‘exclusive’ sense.

#### **□ Either A will happen or B will happen**

Given – A will happen.

Conclusion – B will not happen

This is a valid conclusion.

#### **□ Either A will happen or B will happen**

Given – A will not happen.

Conclusion – B will happen

This is a valid conclusion.

#### **□ Either A will happen or B will happen**

Given – B will happen.

Conclusion – A will not happen

This is a valid conclusion.

#### **□ Either A will happen or B will happen**

Given – B will not happen.

Conclusion – A will happen

This is a valid conclusion.

#### **□ Either A will happen or B will happen**

Given – B will not happen.

Conclusion – A will happen

This is a valid conclusion.

Understandably, in case of ‘Either A will happen or B will happen’, not happening of one part ensures the happening of the other part because one of the parts has to be true. Similarly, we should remember that happening of one part ensures ‘not happening’ of the other part.

Summarizing the above discussion,

<i><b>Either A will happen or B will happen</b></i>		<i><b>Validity</b></i>	<i><b>Truth-metre</b></i>
A has happened	B will not happen	Valid	Definitely True
A has not happened	B will happen	Valid	Definitely True
B has happened	A will not happen	Valid	Definitely True
B has not happened	A will happen	Valid	Definitely True

Further, it should be understood that the statement ‘Either A will happen or B will happen’ and statement ‘A will happen or B will happen’ are one and the same.

**Example 11**

Q 11. Either A is 200 m from B and B is 100 m from C or A is 300 m from C.

- (i) A is 200 m from B and B is 100 m from C.
- (ii) A is 300 m from C.
- (iii) A is not 200 m from B and B is not 100 m from C.
- (iv) A is not 300 m from C.

Which of the following is a correct ordered relationship?

- |            |           |
|------------|-----------|
| (a) ii-iii | (b) i-iv  |
| (c) iii-ii | (d) i-iii |

**Solution 11**

Go through the options.

**Option (a) ii-iii**

A being 300 m from C ensures that A is not 200 m from B and B is not 100 m from C. So, ii-iii is a correct relationship.

**Option (b) i-iv**

We definitely have a true pair here as well.

**Option (c) iii-ii**

Since one of the two statements given in the example has to be true; and in this case one statement is given to be wrong; so, the other statement has to be true.

Hence, if A is not 200 m from B and B is not 100 m from C then the statement A is 300 m from C has to be true.

So, this is a valid conclusion.

**Option (d) i-iii**

Obviously, this is not true.

## ➤ PRACTICE EXERCISE

Q 1. I will buy the airplane only if it is the costliest and the fastest.

- (a) I did not buy the airplane and it is neither the fastest nor the costliest.
  - (b) I bought the airplane and it is not the costliest nor is it the fastest.
  - (c) The airplane is the fastest and the costliest and I did not buy it.
  - (d) I bought the airplane and it is the fastest and the costliest.

Q 2. I work very hard whenever there is a need.

- (a) I work very hard and there is a need.
  - (b) I did not work hard and there is no need.
  - (c) I did not work hard and there is no need.
  - (d) Both b and c

O 3. I wear a pad every time I bat.

- (i) I batted.
  - (ii) I did not bat.
  - (iii) I wore a pad.
  - (iv) I did not wear a pad.

(a) ii-iv	(b) iii-iv
(c) iv-ii	(d) i-iv

Q 4. I get cold feet whenever I see a lion.



Q 5 Whenever Deydas comes Umrao Jaan sings



Q6 I can see the star only if I go to the planetarium

- I can see the star only if I go to the planetarium.

  - (i) I went to the planetarium.
  - (ii) I did not see the star.
  - (iii) I saw the star.
  - (iv) I did not go to the planetarium.

(a) ii-iv	(b) iv-ii
(c) i-ii	(d) iii-iv

Q7. I can find Chinese toys only if I go to the fair.

- I can find Chinese toys only if I

  - (i) I did not find Chinese toys.
  - (ii) I found Chinese toys.
  - (iii) I went to the fair.
  - (iv) I did not go to the fair.

(a)	iii-iv	(b)	iii-ii
(c)	iii-i	(d)	i-iv

Q.8 I will befriend Sam only if he returns my book.

- (i) I befriended Som.  
(ii) Som returned my book.



O 9. Only in Bengal, you can see the Bengal Tiger.

- (i) You went to Bengal.
  - (ii) You did not go to Bengal.
  - (iii) You saw the Bengal Tiger.
  - (iv) You did not see the Bengal Tiger.

(a) i-iii	(b) iv-ii
(c) i-iv	(d) ii-iv

Q 10. You cannot clear the CAT unless you are hard working

- (i) You are hard working.
  - (ii) You can clear the CAT.
  - (iii) You are not hard working.
  - (iv) You cannot clear the CAT.

(a) ii-iv	(b) i-iii
(c) iii-iv	(d) i-ii

Q11 Amit Kumar is either an engineer or a doctor



Q 12 Either Baghav is sick or he is stoned

- Either Raghav is sick or he is stone.

  - (i) Raghav is sick.
  - (ii) Raghav is not sick.
  - (iii) Raghav is stoned.
  - (iv) Raghav is not stoned.

(a) i-ii	(b) iv-i
(c) i-iii	(d) iii-iv

O 13 When I see an RGV movie I have a bad dream

- When I see an RGV movie I have

  - (i) I saw an RGV movie.
  - (ii) I did not see an RGV movie.
  - (iii) I did not have an bad dream.
  - (iv) I had a bad dream.

(a) iii-ii	(b) iv-i
(c) ii-iii	(d) i-iii

O 14 Raju gets a mild flu whenever he eats an ice cream.

- Raju gets a mild flu whenever he eats

  - (i) Raju gets a mild flu.
  - (ii) Raju does not eat an ice cream.
  - (iii) Raju does not get a mild flu.
  - (iv) Raju ate an ice cream.

(a) i-ii	(b) iv-iii
(c) i-iii	(d) iii-ii

O 15. Either SRK is angry or he shows mock anger.

- Either SRK is angry or he shows mock anger.

  - (i) SRK shows mock anger.
  - (ii) SRK is angry.
  - (iii) SRK does not show mock anger.
  - (iv) SRK is not angry.

(a) iii-ii	(b) iv-i
(c) ii-i	(d) iii-ii and iv-i

Q 16. Whenever my mother scolds me, I either hide behind my father or complain to my grandma.

- (a) If I complain to my grandma or I hide behind my father, then my mother must have scolded me.
- (b) If I did not complain to my grandma and I did not hide behind my father, then my mother must not have scolded me.
- (c) If my mother does not scold me, I will neither hide behind my father nor complain to my grandma.
- (d) None of these

Q 17. Either the paper is big or the pencil is small.

- (i) The paper is big.
  - (ii) The paper is not big.
  - (iii) The pencil is small.
  - (iv) The pencil is not small.
- (a) i-iii                  (b) iv-ii
  - (c) ii-iii                  (d) iii-i

Q 18. Either is lion is not big or the fox is cruel.

- (i) The lion is big.
- (ii) The lion is not big.

(iii) The fox is cruel.

(iv) The fox is not cruel.

- (a) ii-iii                  (b) i-iii
- (c) iii-ii                  (d) i-iv

Q 19. If the milk is not cold then I will not go to school and will not have dinner.

- (a) If I have gone to school or I have not had dinner; then the milk is not cold.
- (b) If I have gone to school and I have had dinner, then the milk is cold.
- (c) If I have gone to school and I have not had dinner then the milk is cold.
- (d) If I have gone to school or I have had dinner, then the milk is cold.

Q 20. Unless you catch the criminals, the crimes will not stop.

- (i) The criminals have been caught.
  - (ii) The crimes have stopped.
  - (iii) The criminals have not been caught.
  - (iv) The crimes have not stopped.
- (a) iv-iii                  (b) iii-iv
  - (c) ii-iii                  (d) iv-i

**ANSWERS****PRACTICE EXERCISE**

Q. No.	Answer						
1	(d)	2	(c)	3	(c)	4	(c)
5	(d)	6	(b)	7	(d)	8	(c)
9	(d)	10	(c)	11	(a)	12	(b)
13	(a)	14	(d)	15	(d)	16	(b)
17	(c)	18	(b)	19	(d)	20	(b)

# 4

# Sequencing and Arrangement



## LEARNING Objectives

1. Meaning of Sequencing and Arrangement
2. Different types of Sequencing and Arrangement questions
3. Circular Arrangement
4. Approach to solve the questions

In CAT and other major B-school examinations, sequencing and arrangement questions constitute a major portion of the paper. In this chapter, we will discuss sequencing and arrangement both as a skill and as a type of question.

However throughout this book, other than this chapter, we will be using the word sequencing and arrangement more as a skill, rather than as a type of question.

While discussing the constituents of Logical reasoning in Chapter 2—Developing the Skills, we went through the definitions and interpretations of variables and understood the mechanisms to solve the LR questions. Besides, we covered Sequencing, which is just a part of the whole gamut of solving questions, and the problems of two/three/more than three variables.

We will start from the same place where we left in Chapter 2.

### ➤ **WHAT IS SEQUENCING AND ARRANGEMENT?**

Sequencing is the act of putting things in a specific sequence, order or a list. In our day-to-day life too, we go through

many examples of sequencing or arranging things and events such as:

While writing appointments on a calendar or a mobile,

While placing an order in a restaurant—Talumein soup, kebabs, ice cream and finally mocha,

While taking a test and deciding which section is to be attempted first, second and so on.

The only difference between sequencing in our practical life and the LR set will be the fact that the LR set given in the questions will have a prior order of variables. As a student your job will be to find out that order or sequence.

### ➤ **TYPES OF SEQUENCING AND ARRANGEMENT**

While a good number of times the statements/conditions given in the LR set will specify the exact positioning of the entities given. However, many times only the relative positioning of the variables will be given.

Let us see some examples of such statements:

Context	Statement reads as
Which variables are exactly placed in the sequence?	M is fourth.
Which variables are forbidden from a specific position in the sequence?	M is not fifth.
Which variables are next to, before or immediately preceding or following one another?	M and N are consecutive. A is next to B. No variable comes between A and B. A and B are consecutively in the sequence.
Which variables cannot be next to, before or immediately preceding or following one another?	A does not immediately precede or follow B. A is not immediately before or after B. M and N are not consecutive in the sequence.
How far apart in the sequence are two particular variables?	Exactly two people come between A and B.
What is the relative position of A and B in the sequence?	A comes before B in the queue. M comes after N in the queue.

In the above given examples, we observe two types of sequencing:

### □ Strict Sequencing and Arrangement

In these kinds of sequencing, relative positioning of the variables will be almost fixed. These are the rules which give us the exact position of the variables.

### □ Example

**Directions for questions 1 to 3: Read the following passage below and solve the questions based on it.**

During the summer placements at MU, which will run for a single week in June starting from Monday through Friday; Due North Inc. will interview three applicants Omkara, Tyagi, and Keshu. Exactly five interviews will be conducted in this week long schedule with strictly one interview per day.

Further information about the schedule of the interviews is as follows:

- Each applicant is interviewed at least once.
- Omkara is interviewed twice on two consecutive days.

- Tyagi has to meet his girl friend Billo on Wednesday, therefore he cannot be interviewed on Wednesday.
- Keshu is not interviewed on Friday as he has to go to meet Dolly who is Omkara's wife.
- If Tyagi is interviewed on Monday then Keshu must be interviewed on Tuesday.

Q 1. Which out of the following week's schedule could be true?

- (a) The person who is interviewed on Tuesday is also interviewed on Thursday.
- (b) The person who is interviewed on Wednesday is also interviewed on Friday.
- (c) The person who is interviewed on Monday is also interviewed on Tuesday.
- (d) Tyagi is interviewed on Monday and Thursday.

Q 2. If in addition to Omkara, one more person is interviewed on two consecutive days, then which of the following could be true?

- (a) Tyagi is interviewed on Monday and Omkara is interviewed on Wednesday.
- (b) Tyagi is interviewed on Tuesday and Friday.
- (c) Tyagi is interviewed on Tuesday and Omkara is interviewed on Friday.
- (d) Keshu is interviewed on Tuesday and Omkara is interviewed on Thursday.

Q 3. If the week's interview schedule has the same applicant scheduled for Monday and Thursday then on which day must Tyagi be interviewed?

- (a) Monday      (b) Tuesday
- (c) Wednesday    (d) Friday

### Solution

#### Scenario

There are three applicants—Omkara (O), Tyagi (T) and Keshu (K) and they are to be interviewed for five interviews, Monday through Friday. Looking at the given limitations of exactly one interview per day and with only three applicants for five interviews, some of the applicants must be interviewed more than once.

#### Rules

The interviews are conducted one per day starting on Monday through Friday. Hence, sketch a weekly schedule with five spaces first.

M	T	W	T	F
_	_	_	_	_

The first condition says each applicant will be interviewed at least once. The next condition says Omkara is interviewed on two consecutive days—lets have an OO block for two consecutive days. The next two conditions tell about the days on which Tyagi and Keshu cannot be interviewed;

mark this information in your diagram. The last condition says that if Tyagi is interviewed on Monday, Keshu must be interviewed on Tuesday.

#### T (MON) then – K (TUE)

The OO block for Omkara is the only big restricting factor present here. There is nothing that stops its placement on any particular pair of days in the schedule. But since Omkara is interviewed on exactly two days and Tyagi and Keshu are each to be interviewed at least once, you have four out of the five entities. The fifth interview will go to either P or S.

If Tyagi is interviewed on Monday, Keshu is interviewed on Tuesday, then Omkara will be interviewed either on Wednesday-Thursday or Thursday-Friday. Hence, one thing is sure that Omkara is definitely interviewed on Thursday. And if any of this does not happen, then it means that Tyagi would not be interviewed on Monday.

#### T (MON) then – K (TUE)

Mon	Tue	Wed	Thu	Fri
T		K	O	O
-----	-----	-----	-----	O O

1. Option (c) is the answer.

To find out the ‘could be true’ statements, we should eliminate the options that must be false.

Option (a) does not allow to place the pair of days for Omkara anywhere, so it cannot be true.

Option (b) cannot be true either: Tyagi is not interviewed on Wednesday and Keshu is not interviewed on Friday, the only applicant who can be interviewed on both Wednesday and Friday is Omkara—but his two interviews must happen on consecutive days.

Option (d) also cannot be true; if Tyagi is interviewed on Monday, we have already concluded that Omkara will be interviewed on Thursday.

Only option (c) could be true.

2. Option (d) is the answer.

According to the conditions given in the question, besides an OO block, we will have either a TT block or a KK block.

Going through the options:

Option (a) suggests that if Tyagi is on Monday, then Keshu has to be on Tuesday. But with Keshu on Tuesday and Omkara on Wednesday and Thursday, we do not have the consecutive days block left either for PP or SS, so option (a) is ruled out.

Option (b) cannot be the answer, because here Tyagi is interviewed on two non-consecutive days, and that stops every body besides Omkara to go on two consecutive days.

Option (c) Omkara is on Friday, so he is interviewed on Thursday also. Since both Keshu and Omkara cannot go on Wednesday (using condition 3)

Keshu must be interviewed on Wednesday. Taking Tyagi on Tuesday, he must be the second person to be interviewed on two consecutive days – Monday and Tuesday. But if we put Tyagi on Monday then Keshu should be interviewed on Tuesday.

So option (c) cannot be the answer.

Option (d) is the only option left out, so this has to be the answer.

If Keshu is on Tuesday and Omkara is on Thursday, then Keshu can be on Monday and Omkara can be on Wednesday. Now Tyagi can be interviewed on Friday.

M	T	W	T	F
—	—	—	—	—
Keshu	Keshu	Omkara	Omkara	Tyagi

3. Option (d) is the answer.

If the same applicant is to be scheduled for both Monday and Thursday, then it cannot be Omkara, who must have the interview on two consecutive days. It cannot be Tyagi too, because Tyagi on Monday and Omkara on Thursday is not an acceptable set. So it must be Keshu. Now, Monday and Thursday are taken up by Keshu, then Omkara must be interviewed on Tuesday and Wednesday (the only consecutive days left). Hence, Tyagi must be on Friday. Option (d) is correct.

### □ Loose Sequencing and Arrangement

In this kind of sequencing, the data given will tell us the relative positioning of one variable with respect to the other variable; without giving the exact position.

### □ Example

#### Directions for questions 4 to 5: Read the following passage and solve the questions based on it.

Eight parties—Forward Block, Hindustan Party, Janta Party, Lokmat, New Socialist party, Praja party, Socialist party and TDP, contested in the last general election. The number of seats won by these parties vary largely. While announcing the final results, The election commission expressed the following observation regarding the number of seats won by these parties in terms of their popularity (the more the popularity, the more is the number of seats won by the party and vice versa).

(While doing the ranking, take the first to be being the party with the maximum seats won and the eighth to be the party with minimum seats won.)

- (i) No two parties won the same number of seats.
- (ii) The Socialist party and the Forward block are each less popular than the TDP.

- (iii) The Socialist party is more popular than the Janta party.
- (iv) The Lokmat and the New Socialist party are each less popular than the Forward block.
- (v) The Hindustan party and the Lokmat are each less popular than the Janta party.
- (vi) The Praja party is less popular than the Lokmat.
- (vii) The Praja party is not the eighth in rank.

### Scenario

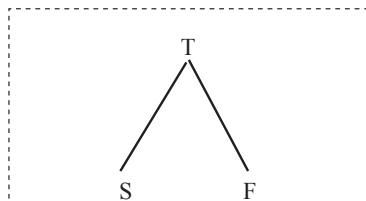
When planning the diagram for the sequencing first, decide if it should be drawn horizontally or vertically. To draw the diagram here, we will think of the rankings in terms of top to bottom.

Unlike the problems done in the strict sequencing section, writing 1 to 8 or creating eight spaces will not serve the purpose owing to the fact that no exact information regarding the positioning of variables, e.g., (The Praja party is not eighth) is given.

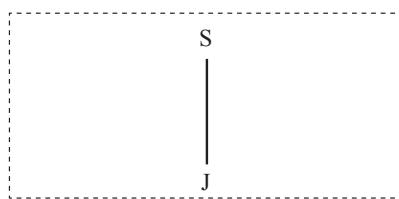
### Rules

Start visualizing. Let us name each party with its first letter as in the Forward Block is F etc.

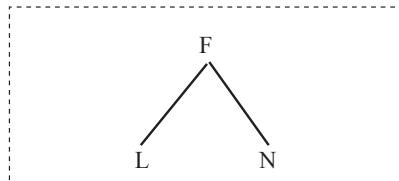
The first condition states that S and F are both less popular than T. Here we do not know anything about the space between these two entities, just the order. Draw T above both S and F by keeping in mind that nothing is said about the relationship between S and F.



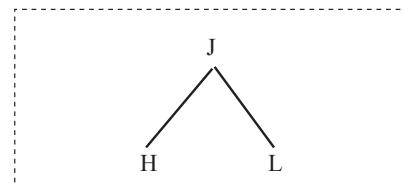
The second condition: S is more popular than J



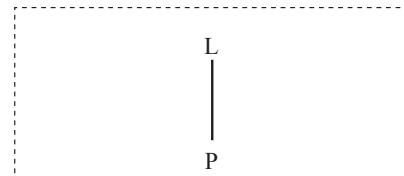
Next condition: Both L and N are less popular than F



Next condition: Both H and L are below J

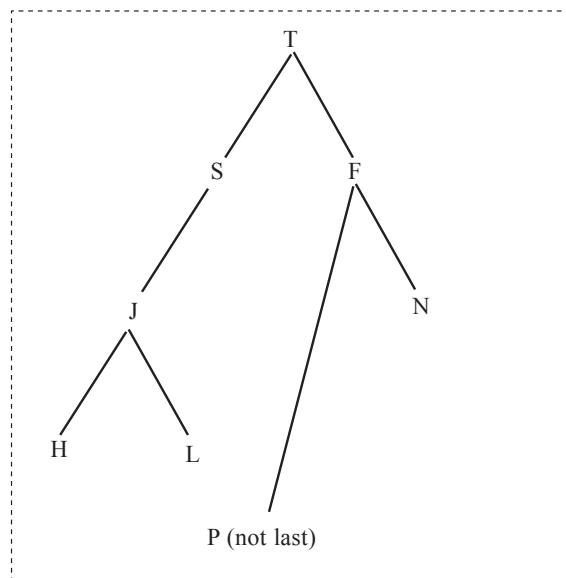


Next condition: P is less popular than L



Last condition: P is not the eighth. “P ≠ 8” or “P is not the last”

Let us now start joining the information. If we connect S from condition 2 to condition 1, this is exactly what we get:



After joining the rules, we have the relationship between more parties.

Which is higher, F or P? Of course F is higher, and we know we can determine the relationship between them because we can travel from one to the other in one direction.

**FLAW DETECTOR**—Now have a look at F and H. Can we say that F is higher than H? The answer is—No. It is all because of the fact that to go from F to H, we would have to “travel” along the tree in more than one direction (first up then down, or first down then up). By doing this there is no definite relationship. F could be ranked higher than H or H could be higher than F. Which party is ranked last? Either H or N.

Lets now consider the questions.

- Q 4. Which of the following could be the order of the parties listed from winning the maximum number of seats to the minimum number of seats?

- (a) T, F, S, L, J, N, P, H
- (b) S, T, F, N, J, L, P, H
- (c) T, S, J, H, F, P, L, N
- (d) T, S, J, F, L, N, P, H

(All the parties are being denoted by their first letter).

4. Option (d) is the answer.

To start with, this could be seen as the complete and accurate list, since all parties are taken into consideration in each answer choice.

Now, start going through the options.

Apply each condition to the given options. Option (b) violates condition (i) by making S more popular than T, therefore option (b) must be incorrect. Condition (ii) and (iii) do not help eliminate any options, but (a) violates condition (iv) by making L more popular than J, and is hence, incorrect. Option (c) gives P a higher popularity than L, a violation of condition (v). We have eliminated three options. So the remaining option (d) has to be the correct answer.

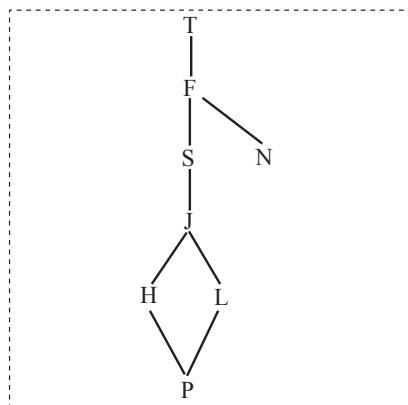
- Q 5. If the Forward block is more popular than the Socialist Party and the Hindustan party is more popular than the Praja Party, then which of the following must be true of the number of seats won by different parties in the election?

- (a) The Hindustan Party is sixth.
- (b) The Lokmat is sixth.
- (c) The Lokmat is seventh.
- (d) The New Socialist Party is eighth.

5. Option (d) is the answer.

Let us again use the first letter of the parties as their symbol.

This “if” question places two additional conditions on the order of popularity. The first condition places F above S. The second condition places H above P. Re-draw your sketch to incorporate these new conditions:



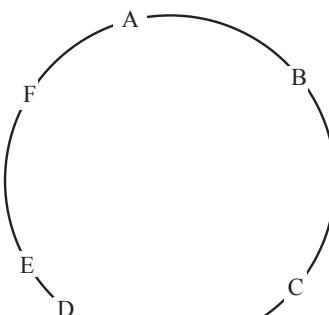
Going through the options against the backdrop of the introduction of new facts like F is assigned to position 2 and the elimination of H as a possibility for the last position

(leaving only N available for that slot) in the new sketch, option (d) is correct. Since both H and L could be in the sixth position, (a) and (b) do not have to be true, although these are probably true. Also, if L is placed at the seventh position, then P would have to be in the last position. And this violates the last condition, making option (c) incorrect.

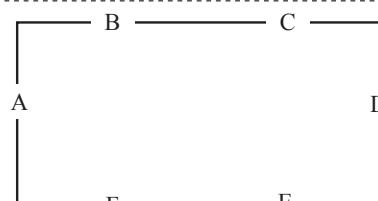
## □ Circular Arrangement

The Circular Arrangement questions are not necessarily the questions regarding a situation where we need to make the seating arrangement around a circular table. It can be a rectangular table or even a hexagonal table. We should understand Circular Arrangement as an arrangement having a closed loop.

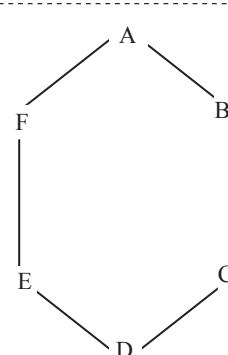
This can be understood with the following diagrams also:



**Figure 1**



**Figure 2**



**Figure 3**

The above given diagrams might appear to us as three different structures/arrangements. However, there would be a minimal difference in the descriptions given for the above situations. In all the diagrams, we find the following things common:

- A is sitting opposite to D.
  - B is sitting on the immediate left of A.
  - E is sitting in between F and D.

Now if we go on to making the diagrams pertaining to the details given, we will be clueless about the kind the diagram which is going to be formed.

If we form the question as—A, B, C, D, E and F are sitting around a circular table... → We would be using Figure 1.

If we form the question as—A, B, C, D, E and F are sitting around a rectangular table... → We would be using Figure 2.

If we form the question as—A, B, C, D, E and F are sitting around a hexagonal table... → We would be using Figure 3.

Similarly, we might be using a totally different arrangement in accordance with the given statements.

However, one thing that should be very clear in our mind is that, in any circular arrangement, what ever be the structure, the loop should be closed.

## □ Example

**Directions for questions 6 to 7:** Read the following passage and solve the questions based on it.

Five leaders from undivided India—Pt Nehru (P), M. K. Gandhi (M), Rajendra Prasad (R), Subhash Chandra Bose (S) and Tyagi (T) participated during the 2nd Round-table conference at London in 1930.

It was noted that Pt Nehru sat two seats to the left of Rajendra Prasad and M. K. Gandhi sat two seats to the right of Rajendra Prasad.

- Q 6. If Subhash Chandra Bose sat between M. K. Gandhi and Rajendra Prasad, then who sat to the immediate right of Pt Nehru?

(a) Tyagi                      (b) Subhash Chandra Bose  
(c) M. K. Gandhi            (d) Rajendra Prasad

Q 7. If Subhash Chandra Bose did not sit next to M. K. Gandhi, then who sat between M. K. Gandhi and Subhash Chandra Bose?

(a) Rajendra Prasad        (b) Pt Nehru  
(c) Tyagi                      (d) Cannot be determined

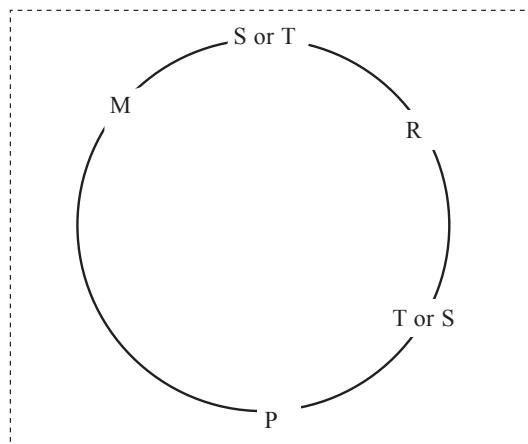
### Solution

## Scenario

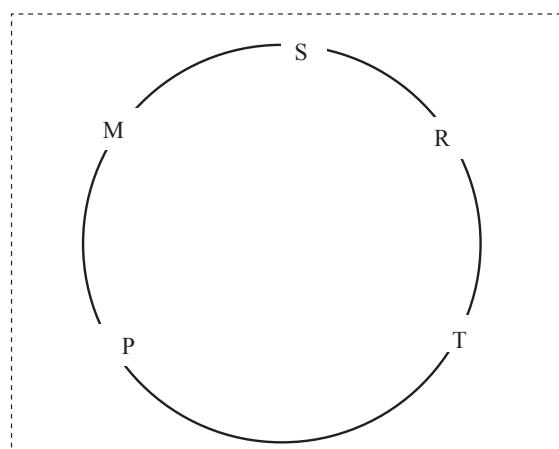
There are five leaders and five sitting positions

## **Rules**

Pt Nehru sat two seats to the left of Rajendra Prasad and M.K. Gandhi sat two seats to the right of Rajendra Prasad. Let us see this with the help of a diagram:



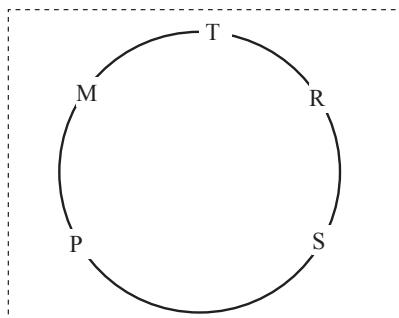
6. Option (a) is the answer.  
If Subhash Chandra Bose sat between M. K. Gandhi and Rajendra Prasad, then the arrangement would be as follows:



It is obvious from the above given diagram that Tyagi sat to the immediate right of Pt Nehru.

Hence, option (a) is the answer.

7. Option (b) is the answer.  
If Subhash Chandra Bose did not sat next to M. K. Gandhi, then the seating arrangement would be as follows:



Hence, option (b) is the answer.





Q 5. What is the position of C?

- (a) Second to the left of L
- (b) Second to the left of W
- (c) Third to the left of G
- (d) Between S and J

Q 6. Which two outfits are at the two ends?

- (a) S and D
- (b) S and W
- (c) J and W
- (d) J and D

Q 7. Which of the following is not true?

- (a) S and C are consecutively placed.
- (b) J is at one of the ends.
- (c) There are two outfits between C and W.
- (d) Positions of J and W are interchangeable.

**Directions for questions 8 to 11:** Read the following passage and solve the questions based on it.

- (i) A, B, C, D, E, F and G are seven members of a family standing in a row (not necessarily in the same order) facing a particular direction.
- (ii) C and B have as many members between them as G and C have between them.
- (iii) D, who is 3rd from the extreme left, is 3rd to the left of E.
- (iv) A and D are neighbours and F and C are neighbours.

Q 8. Which of the following statements may be false?

- (a) A is 3rd to the left of F
- (c) D is 3rd to the left of E
- (b) F is 3rd to the right of A
- (d) B is 3rd to the left of C

Q 9. Which of the following statements is true?

- (a) C and E are neighbours
- (b) E is to the immediate left of F
- (c) C is to the immediate left of D
- (d) A is to the immediate left of D

Q 10. Who is at the extreme right?

- (a) G
- (b) B
- (c) E
- (d) Data Inadequate

Q 11. Which of the following gives two pairs of neighbours?

- (a) A, C and D, C
- (b) A, B and E, G
- (c) D, C and E, F
- (d) C, F and C, E

**Directions for questions 12 to 16:** Read the following passage and solve the questions based on it.

Five students—Pankaj, Jatin, Robin, Dinkar and Rahul went for the Group Discussion (GD) and the Personal Interview (PI). The panel judged these five students and gave them rankings for the GD and the PI in a descending order. Rahul, who was ranked first in the GD, was last in the PI. Robin had the same ranking in both and was just above Rahul in the PI. In the GD, Pankaj was just above Dinkar but in the PI he was in the middle, after Jatin.

Q 12. Who ranked first in the PI?

- (a) Jatin
- (b) Rahul
- (c) Robin
- (d) None of these

Q 13. Who ranked fifth in the GD?

- (a) Dinkar
- (b) Jatin
- (c) Robin
- (d) Data inadequate

Q 14. Who among the following has the same rank in both the GD and the PI?

- (a) Pankaj
- (b) Robin
- (c) Dinkar
- (d) None of these

Q 15. To get the final selection list, the ranks of the students in the GD and the PI are added up. The lower the sum of the ranks, the better the performance. Who among the following has the maximum chances of getting selected. (The better the performance, the better are the chances of getting selected).

- (a) Pankaj
- (b) Jatin
- (c) Robin
- (d) Dinkar

Q 16. In the last question, who among the following has the least chance of getting selected?

- (a) Pankaj
- (b) Jatin
- (c) Robin
- (d) Dinkar

**Directions for questions 17 to 20:** Read the following passage and solve the questions based on it.

- (i) A, B, C, D, E, F, G and H are standing in a row facing north.
- (ii) B is not a neighbour of G.
- (iii) F is at the immediate right of G and neighbour of E.
- (iv) G is not at the extreme end.
- (v) A is sixth to the left of E.
- (vi) H is sixth to the right of C.

Q 17. Who among the following are neighbours?

- (a) AB
- (b) CG
- (c) FH
- (d) CA

Q 18. Which one among the following defines the position of D?

- (a) Fourth to the right of H
- (b) Third to the right of A
- (c) Neighbour of B and F
- (d) To the immediate left of B

Q 19. Which of the following is true?

- (a) C is to the immediate left of A
- (b) D is a neighbour of B and F
- (c) G is to the immediate right of D
- (d) A and E are at the extreme ends

Q 20. After making the linear arrangement, we join them to form a circular arrangement by joining A and H. Which of the following is the odd one out?

- (a) B-H
- (b) E-D
- (c) B-F
- (d) H-G

# ANSWERS



## ↳ PRACTICE EXERCISE 1

Q. No.	Answer						
1	(c)	2	(d)	3	(d)	4	(b)
5	(a)	6	(d)	7	(c)	8	(b)
9	(c)	10	(d)	11	(d)	12	(d)
13	(b)	14	(d)	15	(c)	16	(a)
17	(b)	18	(d)	19	(a)	20	(a)

## ↳ PRACTICE EXERCISE 2

Q. No.	Answer						
1	(b)	2	(a)	3	(d)	4	(c)
5	(a)	6	(d)	7	(d)	8	(d)
9	(d)	10	(d)	11	(c)	12	(d)
13	(b)	14	(b)	15	(d)	16	(c)
17	(d)	18	(b)	19	(c)	20	(c)

## HINTS AND EXPLANATIONS

## ↳ PRACTICE EXERCISE 1



### Solution to Q1 to 4:

Room	Person
A	-
B	-
C	-
D	-
E	-
F	-

From (iii) and the other given facts, two women will live in room C.

From (iii) and (iv), P will live in room E.

From (v) and (iii), S will live in room A with R (because P will live alone). From (vi) and (iii), X will live in room F.

Hence, Q and T will live in room C.

Now the whole scene looks like this:

Room	Person
A	S, R
B	U/W
C	Q, T
D	W/U
E	P
F	X

### Solution to Q5 to 8:

From (ii)

P	T
Q	Q
T	P
P	U
S	S
U	P

From the last sentence of (ii), only one possibility remains

R  
T  
Q  
P  
S  
U

Now, using (iii) and the above derived result:

R	C
T	E/B
Q	A
P	F
S	B/E
U	D

### Solution to Q9 to 13:

Persons traveling are: A, B, C, D, E, F and G.

Stations are base station, station 1, station 2, station 3, station 4, and station 5.

Using information (i), (iv), (v), (vi), (vii), (viii) and (x)

Station	Get on	Get down
Base station	---	× × ×
1		× × ×
2	× × ×	
3	Only G	B, D
4	A	Only E
5	× × ×	A, G, C

Using (ii) F gets down at station 2 and he got on either at the base station or at station 1.

Now, since F got down at station 2 and he had got on with C, it means that both C and F got on either at the base station or at station 1.

Again, since B and D get down at station 3, this means they too got on either at the base station or at station 1.

It is given that E got on with two other persons, i.e., in a group of three persons. Obviously, E got on at the base station.

Summarizing the whole information:

Station	Get on	Get down
Base Station	E and (C, F) or (B, D)	× × ×
1	(C, F) or (B, D)	× × ×
2	× × ×	Only F
3	Only G	B, D
4	A	Only E
5	× × ×	A, G, C

### Solution to Q14 to 17:

The first thing that we should do is make nine houses(symbols) in a row:

- - - - - - - - -

Now try to find out the information that we are sure about:

1. T is in either house 2 or house 8.
2. A/T/J cannot be in house 1 or 9.
3. Houses beside E and A have to be unoccupied.
4. House numbers of P and J have to be less than the house number of K, i.e., the order should be PJK or JPK, not necessarily together.
5. There are six people and 9 houses to be occupied by them.

Using point 5, 3 houses have to be vacant. It is possible only if neither E nor A are at the ends or else E is at one of the ends and the difference in the houses of E and A is more than 1.

Understand this—

If both of them are at the ends—

E	Vacant	3	4	5	6	7	Vacant	A
-	-	-	-	-	-	-	-	-

Well, this is otherwise also not possible because it violates condition (i) given in the question. In this case, only two houses are vacant.

If one of them is at the ends—

E	Vacant	3	4	5	6	7	8	9
-	-	-	-	-	-	-	-	-

If E is at 1 and A is anywhere from 4 to 8, then the total number of vacant houses = 3, but if E is at 1 and A is at 3, then only two houses will be vacant.

Now start taking the positions:

P	J	Vacant	A	Vacant	E	Vacant	T	K
-	-	-	-	-	-	-	-	-

Or

P	T	Vacant	E	Vacant	A	Vacant	J	K
-	-	-	-	-	-	-	-	-

14. (d) We have not referred to statement (v) till now, therefore it is the redundant statement.
15. (c) Obviously four people are living next to a vacant house.

### Solution to Q18 to 20:

18. (d) This question is a typical example of the kind of questions which can be solved without actually making the whole diagram. Let us see:

Using the second statement (Ravi is elder to both Tipu and Vikash), we can eliminate option

(a) Using the third statement (Prakash is two years older than Tipu), we eliminate (b) and (c). We are left with (d), which must be correct.

19. (a) This question can also be solved without using a diagram, however for the sake of discussing the solution, lets consult a diagram.

2000	2001	2002	2003	2004	2005
	Prakash	Pankaj	Tipu		
		Pankaj	Prakash	Tipu	

Using statement (iii), Prakash is two years older than Tipu. Using the diagram, the only possible places which Prakash and Tipu can have are either 2003 and 2005 or 2001 and 2003.

Using statement (i), Pankaj is elder to Santosh, so the only possible place left for Santosh is 2004.

Using Statement (ii), Ravi is elder to Tipu and Vikash. Hence, the only place left for Ravi is 2000.

20. (a) Using the diagram once again

2000	2001	2002	2003	2004	2005
Prakash		Tipu	Pankaj		

Assuming Prakash to be the eldest in the group, he must have been born in 2000, that means Tipu was born in the year 2002.

Hence, we can conclude that Pankaj was born in 2003. Now using statement (ii), Ravi was elder to both Tipu and Vikash. Hence, Ravi must have been born in 2001 and Vikash in either 2004 or 2005.

## ◀ PRACTICE EXERCISE 2



### Solution to Q1 to 3:

In this set, we will need to make two series—one for comparing beauty and the other for comparing weights. From (iv) and (vii), we can deduce the series for comparing beauty as

Pamleshanand > Pamalanand > Parananand > Pailashanand

From (v), (vi) and (vii), we deduce the series for comparing as:

Pailashanand > Pamalanand > Parananand > Pamleshanand > Punalanand.

Further, since Pailashanand is not the heaviest in the group (ii), Pedaranand has to be Heavier than Pailashanand. Thus, the series for comparing weights will be Pedaranand > Pailashanand > Pamalanand > Parananand > Pamleshanand > Punalanand.

→ Punalanand is lightest in the group and hence, the most handsome (iii).

Therefore the series for comparing beauty will be:

Punalanand > Pamleshanand > Pamalanand > Parananand > Pailashanand.

From (ii), we can say that Pedaranand is less handsome than Punalanand.

### Solution to Q4 to 7:

Using the first condition—S is on the immediate left of C, i.e., S C

Using the second condition—There are three outfits between C and D. C \_ \_ \_ D

Using the third condition—

G L W or W L G

Using the fourth condition—There are 2 outfits between G and D, these should be L and W and this arrangement satisfies the second condition too.

C G L W D

Using the result from the first condition:

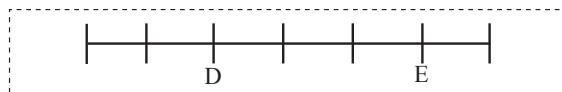
S C G L W D

As D is at one corner, J must be at the second corner as there is no empty space anywhere else. So the complete arrangement is:

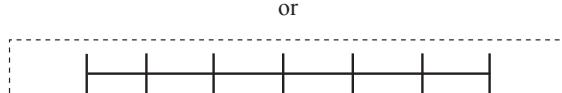
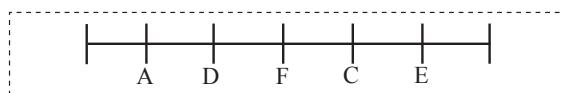
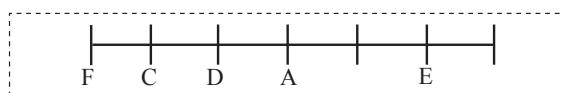
J S C G L W D

### Solution to Q8 to 11:

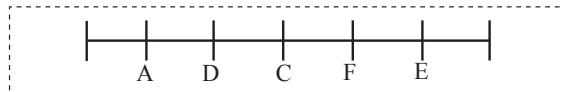
From (iii)



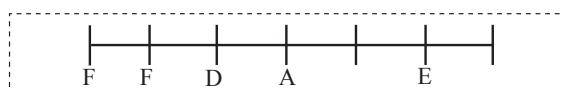
Combining (iii) and (iv), we get the following arrangements:



or



or



So, the possible arrangements are:

GADC FEB  
or  
BADC FEG

8. (d) Because position of B is not fixed.  
11. (c) As the position of B and G are not fixed, option b is not definitely true.

**Solution to Q12 to 16:**

	<b>GD</b>	<b>PI</b>
Pankaj	2	3
Jatin	5	2
Robin	4	4
Dinkar	3	1
Rahul	1	5

**Solution to Q17 to 20:**

Using the information given,

$$\text{GFE} \quad \dots\dots\text{(iii)}$$

Now statements (v) and (vi) may be combined as:

$$\text{AC} - \text{--- EH} \quad \dots\dots\text{(vii)}$$

$$\text{Or, CA} - \text{--- HE} \quad \dots\dots\text{(viii)}$$

But (viii) is not possible because it violates statement (iv).

Combining (iii) and (vii), we get

$$\text{AC} - \text{GFEH} \quad \dots\dots\text{(viii)}$$

Now, from statement (ii) and deduction (viii), we get

$$\text{ACB} - \text{GFEH} \quad \dots\dots\text{(ix)}$$

This blank can be filled by 'D', hence, the arrangement is ACBDGFEH.

20. (c) Two persons are sitting between all the four pairs, but in three of them it is clockwise and one of them is having it in anti-clockwise.

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# 5

# Team Selection



## LEARNING Objectives

1. Understanding keywords and types of statements
2. Types of questions
3. Methods to solve questions

Questions belonging to this genre will provide a set of objects or people, etc. and then a set of conditions. On the basis of these conditions, one is expected to make choices regarding the formation of the team. It is advisable to jot down the conditions and items to be formed into teams carefully.

In most of these set of questions, you will find that the parent data provides the basic guidelines and subsequently every question introduces one new condition.



It is imperative here to understand that while parent data is applicable to all the questions in the set, data supplied in any question is applicable to that particular question only, and not to the other questions unless specified otherwise.

### **Understanding the Keywords and Types of Statements**

These questions will throw a gauntlet of simple but contextually confusing words at the students. Some of these words/types of statements have been listed below:

1. At least One element – It means One or more – Symbolically, we can represent this as:  $1+$
2. Atmost one element – It means Zero or One – Symbolically, we can represent this as:  $0/1$
3. Atmost two elements – It means Zero or One or Two – Symbolically, we can represent this as:  $0/1/2$ .
4. Conditional clauses [Read chapter “Logical Links” in this book to understand these conditional clauses better]:

If A is selected, then B will also be selected.

Following inferences can be drawn:

- (a) If A is selected, B has to be selected.
- (b) There cannot be a case where A is selected but B is not selected.

#### 4.50 ✤ Understanding Logical Reasoning

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- (c) It is possible that B has been selected but A may be / may not be selected.
- (d) If B has not been selected, then we can conclude that A also has not been selected.
- (e) It is not possible that B has not been selected, but A has been selected [rephrasing of inference (b) above].

In a nutshell, A alone cannot be selected though B alone can be selected.

Go through the following problem sets to understand the type of problems and techniques to solve the same. Do not look at the solution till you are convinced that you have attempted it at your best level.

## ➤ PRACTICE EXERCISE 1

**Direction for questions 1 to 6:** *Read the information given below and solve the questions based on it.*

Three adult women (R, S, and T), two adult men (U and V), and four children (W, X, Y, and Z) are going to a watch a movie. Though, during the online booking of the tickets, they realized that the nine seats available for the show are in three different classes – Silver Class, Gold Class and Lounge. The layout also showed that in each class, three adjacent seats are available.

To watch the movie, they decide to have the three groups of 3 members each as per the following conditions:

- No adults of the same gender can be together in ONE group.
- W cannot be in R's group.
- X must be in a group with S or U or both.

Q 1. If R is the only adult in one group, the other members of her group must be

- (a) W and Y      (b) X and Y  
 (c) X and Z      (d) Y and Z

Q 2. R and U share a good rapport, and hence, decide to be in the same group. Who can be in the second and third groups, respectively?

- (a) S, T, W; V, Y, Z  
 (b) S, X, Y; T, W, Z  
 (c) T, V, W; S, Y, Z  
 (d) W, X, Y; S, V, Z

Q 3. Which of the following pairs of people can be in the same group as W?

- (a) R and Y      (b) S and U  
 (c) S and V      (d) U and V

Q 4. Which of the following must be true?

- (a) One of the women is in a group with two children  
 (b) One of the two men is in a group with W.  
 (c) R is in a group with a man.  
 (d) One of the groups includes no children

Q 5. Any of the following pairs of people could be in a group with X EXCEPT

- (a) R and U  
 (b) S and T  
 (c) S and U  
 (d) S and W

Q 6. Given that T, Y, and Z form one group. Which of the following must be together in one of the other groups?

- (a) R, S, V      (b) R, U, W  
 (c) S, U, W      (d) S, V, W

**Direction for questions 7 to 10:** *Read the information given below and solve the questions based on it.*

Due North presently employs three Marketing Managers (MM) - A, B and C and five faculty members - D, E, F, G and

H. Company is planning to open a new office. It is planning to relocate two of the three marketing managers and three of the five faculty members to the new office. Management wants to ensure that the individuals who do not function well together should not be sent as a part of the team.

Following information was available to the HR department of DueNorth:

Marketing Managers A and C cannot be sent as a team to the new office.

C and E are excellent performers, though, they do not share good rapport, and hence, should not be sent together.

If D is sent, then G cannot be sent, and vice versa.

D and F should not be together in a team.

Q 7. If D goes to the new office which of the following is (are) true?

- A. C cannot go  
 B. A cannot go  
 C. H must also go  
 (a) A only  
 (b) B and C only  
 (c) A and C only  
 (d) A, B and C

Q 8. If A is to be moved as one of the Marketing Managers, which of the following cannot be a possible working unit?

- (a) ABDEH  
 (b) ABFGH  
 (c) ABEGH  
 (d) ABDGH

Q 9. If C and F are moved to the new office, how many combinations are possible?

- (a) 0      (b) 1  
 (c) 2      (d) 3

Q 10. Who among the Marketing Managers and the faculty members is sure to find a berth in the new office?

- (a) D      (b) H  
 (c) G      (d) B

**Direction for questions 11 to 13:** *Read the information given below and solve the questions based on it.*

Seven students at a B-school who live in a dormitory are being formed into groups that consist of two or three or four members at a time. The groups may change but at any time, each person can be a part of one and only one group. The following guidelines have to be adhered to while forming the groups

- The students are Nitin, Priyanka, Rahul, Sumit, Tanay, Urmila and Vinay.
- Nitin cannot be in the same group as Sumit.
- Tanay must be in a group that includes either Sumit or Vinay but not both.
- Vinay has to be in a group that does not contain even number of members.



# ANSWERS



## ► PRACTICE EXERCISE

Q. No.	Answer						
1	(d)	2	(c)	3	(c)	4	(a)
5	(b)	6	(d)	7	(c)	8	(d)
9	(b)	10	(d)	11	(c)	12	(a)
13	(b)	14	(a)	15	(d)	16	(a)
17	(c)	18	(d)	19	(d)	20	(d)
21	(c)	22	(b)	23	(c)	24	(d)
25	(a)						

## HINTS AND EXPLANATIONS

## ► PRACTICE EXERCISE



### Solution to Q1 to 6:

1. (d) Since W cannot be in R's group, we can eliminate 1st option. X can only be in a group with S or U or both. Since R is the only adult, neither S nor U can be in the group. So, 2nd option and 3rd option can be eliminated as both contain X. 4th option is the correct answer because the only two children remaining to fill out the group with R are Y and Z.  
Hence, option (d) is the answer.

2. (c) 1st option contains two women S and T in the second group. Hence, 1st option is eliminated. Similarly, in the 2nd option, first group contains U and V, both men; hence, 2nd can be eliminated.

Since X must be in a group with S or U, or both, the second option and 4th option can be eliminated. 3rd option, consisting of groups R, U, X; T, V, W; and S, Y, Z, meets all of the restrictions and is the correct answer.

Hence, option (c) is the answer.

3. (c) S, V, and W could form a group if the other two groups were R, Y, Z, and T, U, X or R, U, X and T, Y, Z. Thus, the third option is the correct answer.

Option (a) is incorrect. W cannot be in R's group.

Option (b) is incorrect. If S and U are in the same group, X must fill the remaining seat. But option shows that W will take the seat. Therefore, it is not possible.

D is not correct. U and V are both men and cannot be in the same group.

Hence, option (c) is the answer.

4. (a) Now this is a sitter:

Option (a) is obviously correct, because there are three women and only one woman can be in ONE group, so each of the three groups must contain a woman. Further there are more children than groups, hence, at least one group must have two children. That group will include a woman along with the two children.

B is incorrect. S, W, X; R, U, Y; and T, V, Z is one of several possible sets of seating groups in which W is not in the same group as one of the two men.

Option (c) is incorrect. Using option (a) we can say that that woman can be R. Hence, at best, this option is probably true, and not must be true.

Option (d) is also incorrect. Every group must include one child, because a group of three with no children would have to include two adults of the same sex, which is not possible as per the 1st condition.

Hence, option (a) is the answer.

5. (b) Option (a) is possible and hence, not the answer. R, U, X; S, V, W; and T, Y, Z is one of several possible sets of seating groups in which R and U are in X's group.

S and T are both women and cannot be in the same group. Therefore, B is the correct answer.

Option (c) is also possible and hence, cannot be the answer. S, U, X; R, Z, Y; and T, V, W is one of several possible sets of seating groups in which S and U are in X's group.

Option (d) is also incorrect. S, W, X; R, V, Y; and T, U, Z is one of several possible sets of seating groups in which S and W are in X's group.

Hence, option (b) is the answer.

#### 4.54 ✤ Understanding Logical Reasoning

6. (d) If T, Y, and Z form one group, the remaining two groups must be chosen from among R, S, U, V, W, and X.

Now, out of these, R and S are females and U and V are males.

R and S must be in different groups as well as U and V must be in different groups (hence, 1st option is wrong). W must be in the group with S because W cannot be in the group with R (condition 2). X must thus be in the group with R, because both U and V are men and cannot both be in R's group. Since X must be in a group with U or S, and S is already in another group, the remaining slot with R and X must be taken by U. It means V will fill the remaining space in S's group. Hence, option (d) is the answer.

#### Solution to Q7 to 10:

7. (c) D and G as well as D and F cannot work together. New office requires 3 faculty members. Therefore, E, H should go. C and E cannot function together as a team. As E has to go, C cannot go. Therefore, A and B have to be the marketing managers if D is posted to San Jose.

Hence, option (c) is the answer.

8. (d) ABDGH is not a working unit as D and G cannot work together. Hence, option (d) is the answer.

9. (b) If C and F are moved to the new office, then B should be the only other marketing manager who can go. Therefore, the managers are BC. Of the faculty members, E cannot go. Therefore, one has to choose 3 faculty members from D, F, G, H. D cannot be sent because if he goes, then F and G cannot go. Therefore, FGH are the faculty members and B, C are the marketing managers. Only one option available.

Hence, option (b) is the answer.

10. (d) B is sure to find a berth in the group. Hence, option (d) is the answer.

#### Solution to Q11 to 13:

11. (c) Only in option C, all the conditions are satisfied. Vinay is in a group of 3. Tanay is in a group that has Vinay or Sumit, but not both and Nitin is not in the same group as Sumit. Hence, option (c) is the answer.

12. (a) Vinay has to be in a group that has 3 members. So, only one more member can be in that group. If Sumit is in that group, then Tanay cannot be a part of the other group as Tanay has to be in a group in which either Vinay or Sumit is there. So, Sumit has to be a part of the group that has 4 people. In which case, Nitin cannot be in the group that has 4 people and has to be a part of the group that has Vinay and Urmila. Hence, option (a) is the answer.

13. (b) Nitin cannot be in the same group as Sumit. Therefore, we need to have two more groups in addition to the one formed with the three people. So, there will be 3 groups amongst the seven students. Hence, option (b) is the answer.

#### Solution to Q14 to 15:

Digviza ordered the salad and lasagna. Rajdev ordered the soup and eggs Benedict. Sonila ordered the soup and cabbage rolls. Kejri ordered the soup and lasagna.

14. (a) Option (a) is the answer.

15. (d) Option (d) is the answer.

#### Solution to Q16 to 20:

16. (a) In the team of size 3, one member will be from P, R and S and one member will be from M and Q.

Now only one member has to be determined and we know that K and L will be always in team and since there is place for only 1 member, hence, K and L will not be in team of 3 members.

Hence, option (a) is the answer.

17. (c) If we take K and L we cannot take N and U so the size of team will be 4 only. Now we will take S from first statement so U and W will also be there. Now as U so there L cannot be there and hence, K will also not be there. As L is not in team so we can take N so 4 members of team are S, U, W and N and because of second statement any one of M or Q will be there and only M is given in the options.

Hence, option (c) is the answer.

18. (d) Using first statement, if we take P or R, U and W cannot be in team. To get maximum members in team we should take S and from 4th statement U and W will also be in the team. Now either M or Q will be included in the team, and since U is there L cannot be included in the team hence, K will also not be there.

Now as L is not in the team, N can be included in the team. So team with maximum numbers of members will be S, W, U, N and any one from M and Q.

Hence, maximum possible size of team is 5.

Alternatively,

Start with all the 10 members and keep removing the member who cannot be in the team.

K L M N P Q R S U W

Using Condition 1, only one out of P, R and S can come. At the same time, S, U and W will come together. Hence, we should select S out of P, R and S.

K L M N P Q R S U W

Next, since U has come, L cannot come. So we remove L.

K    ~~L~~    M    N    ~~P~~    Q    ~~R~~    S    U    W

Using point (2), only one out of M or Q can come. So eliminate M and retain Q (we could have done otherwise also).

K    ~~L~~    ~~M~~    N    ~~P~~    Q    ~~R~~    S    U    W

Using point (3), if L is removed, K will also be removed.

~~K~~    ~~L~~    ~~M~~    N    ~~P~~    Q    ~~R~~    S    U    W

Remaining members can be part of ONE team.

Maximum team size = 5.

Hence, option (d) is the answer.

19. (d) If we have to take K, L will always be there so U and N will not be in the team. As U is not in the team so S and W will also not be included in the team.

As anyone from P and R will always be there in team and same in the case with M and Q, so the size of team that include K will always be 4.

Hence, option (d) is the answer.

20. (d) Following are the ways in which a team can be constituted:

P, M, N

P, Q, N

R, M, N

R, Q, N

S, U, W, N, M

S, U, W, N, Q

Hence, option (d) is the answer.

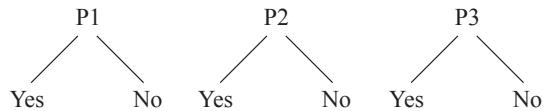
#### Solution to Q21 to 25:

21. (c) If no conditions are imposed, we have following choices to select either one project or two projects and three projects [This is the part of parent statement, and conditions start afterwards]:

P1; P2; P3; P1 and P2; P1 and P3; P2 and P3; P1, P2 and P3  $\Rightarrow$  7 choices.

Alternatively:

For every project, we have two choices – either to select this or not to select this.



$$\text{Total number of choices} = 2 \times 2 \times 2 = 8$$

Out of this we will remove one choice that has – No, No, No.

Hence, option (c) is the answer.

22. (b) We can use the solution to Q21 as our base. We will keep on eliminating the options that are not applicable: P1; P2; P3; P1 and P2; P1 and P3; P2 and P3; P1, P2 and P3

Condition 1: Both P1 and P2 have to be selected.

Hence, only possible selections = P1 and P2; P1, P2 and P3  $\Rightarrow$  2 choices.

Hence, option (b) is the answer.

23. (c) Exhaustive sets = P1; P2; P3; P1 and P2; P1 and P3; P2 and P3; P1, P2 and P3

Condition 2: Either P1 or P3, but not both, has to be selected.

Hence, only possible selections = P1; P3; P1 and P2; P2 and P3  $\Rightarrow$  4 choices.

Hence, option (c) is the answer.

24. (d) Possible selections as per condition 2 = P1; P3; P1 and P2; P2 and P3

Condition 3: P2 can be selected only if P3 has been selected  $\Rightarrow$  P3 can be selected alone, but P2 cannot be selected without the selection of P3.

Hence, only possible selections = P1; P3; P2 and P3  $\Rightarrow$  3 choices.

Hence, option (d) is the answer.

25. (a) Possible selections as per condition 2 and condition 3 = P1; P3; P2 and P3

Condition 1: Both P1 and P2 have to be selected.

Hence, only possible selections = None.

Hence, option (a) is the answer.

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# 6

# Miscellaneous

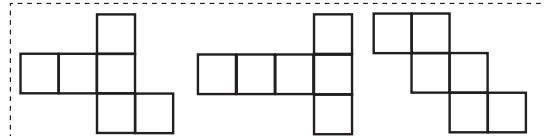
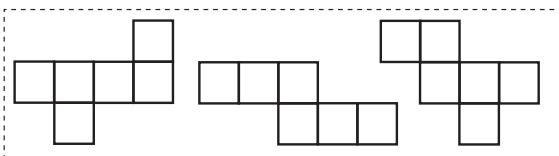
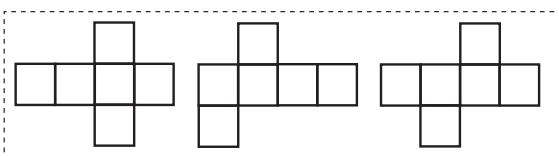


## LEARNING Objectives

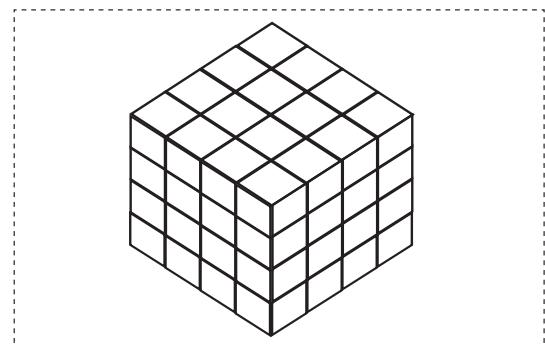
1. Cubes and the deduction related to these
2. Family tree concepts and questions
3. Syllogism
4. Boolean Logic
5. Approach to solve the questions

### ➤ CUBE

A cube is a three-dimensional structure with six faces, eight corners and twelve edges. A cube is composed of six square faces that meet each other at right angles. Let us see how the six different faces of a cube can be represented:



And finally the cube appears like the following:



Generally, the questions asked regarding cubes in LR pertains to finding out the number of cubelets being formed from the original cube by cutting it into several pieces. However, sometimes we might be asked to find out the total number of cuts formed from the total cubelets by cutting the original cube.

### □ Cutting the Cubes

Before moving on to solving questions, we should be clear with the basics about what happens when we cut a cube:

- One cut divides the cube into two parts.
- The second cut divides the cube in either a total of three parts or four parts, depending upon the axis of the cut.
- The third cut divides the cube in either a maximum of eight parts or a minimum of four parts.

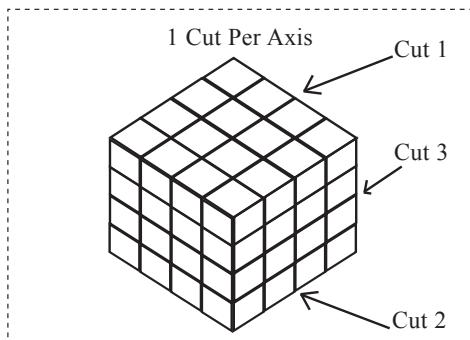
### □ Example 1

- Q 1. A carpenter had a large wooden cube with a side length 4 inches. He wanted to cut it into 64 smaller cubes with a side length 1 inch. What is the least number of cuts required if
- he can rearrange the pieces before each cut.
  - the rearrangement of the pieces before/after making the cut is not allowed?

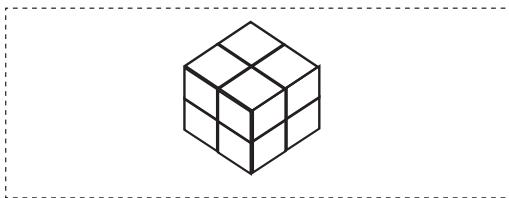
#### Solution 1

Let us understand the difference between the two questions first: In first question (i), we are allowed to move the cube one over the other or we can stack the pieces of the cube side by side or on top of each other, whereas in the second question (ii), we have to assume that the cube is fixed on the horizontal surface and what we can do at best is to make cuts along any of its surfaces.

- (i) When rearrangement is allowed, the minimum is found by cutting each edge as nearly in half as possible; putting the pieces together and cutting as nearly in half again until we obtain a solid with a unit dimension. We would start hereby making a cut midway on all the axis.



And now this is what we will obtain as a unit:



Now restack the solids into the  $4 \times 4 \times 4$  solid and repeat the procedure. After completing the three sides, we will have  $1 \times 1 \times 1$  cubes. Therefore, the sum of the cuts which is six is the answer.

- (ii) When rearrangement is not allowed:

We know that making  $n$  cuts along one axis divides the cube into  $(n + 1)$  parts. To obtain 64 cubelets by making a minimum number of cuts, we should be making the cuts along all the axis.

Assume we have made  $n, m, p$  cuts along three axes.

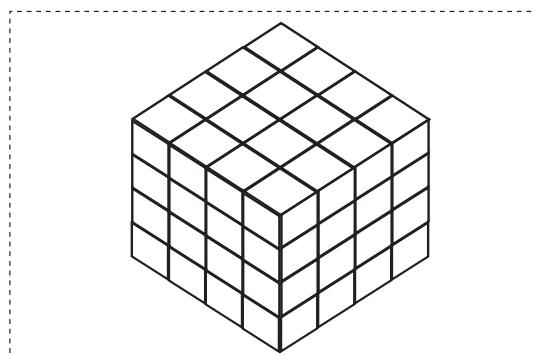
So, the number of cubelets formed =  $(n + 1)(m + 1)(p + 1) = 64$

To minimize the number of cuts,  $(n + 1) = (m + 1) = (p + 1) = 4$

So,  $n = m = p = 3$ , hence, a total of 9 cuts.

Alternatively, to make the minimum number of cuts, they should be made symmetrically.

Look at this figure:



It has 64 cubelets of size  $1 \times 1 \times 1$ , and the total number of cuts made = 9.

### □ Painting the Cubes and then Cutting the Cubes

If we paint a cube of the dimension  $n \times n \times n$  in any one colour and cut it to get  $n^3$  symmetric cubelets; then the number of cubelets with colour on different faces can be categorized as follows:

- Cubelets with only one face painted =  $(n - 2)^2 \times 6$
- Cubelets with two faces painted =  $(n - 2) \times 12$
- Cubelets with three faces painted = 8
- Cubelets with no face painted =  $(n - 2)^3$

**Examples 2 to 5**

**Directions for questions 2 to 5:** *Read the following passage and solve the questions based on it.*

64 symmetrical small cubes are put together to form a big cube. This cube is now coloured green on all its surfaces.

Q 2. How many of the smaller cubes have none of their faces coloured?

**Solution 2**

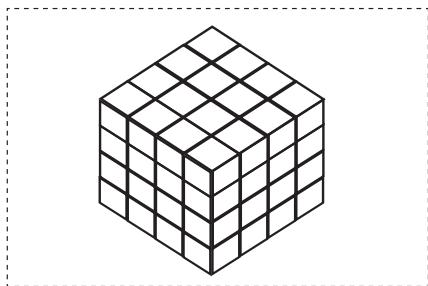
From the given  $4 \times 4 \times 4$  cube, if we remove one layer from the top making it a  $2 \times 2 \times 2$  cube, it will not be coloured.

Hence, 8 small cubes will not be coloured on any of their surfaces.

Q 3. How many of the smaller cubes have exactly three faces coloured?

**Solution 3**

In the figure look at the three faces coloured small cubes:



All the corner cubes (blackened) will have exactly three faces coloured.

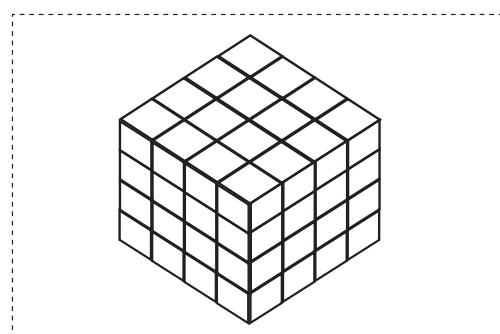
These are 8 in number.

Remember, for any  $n \times n \times n$  dimension ( $n \geq 2$ ), the number of cubes which have exactly three faces coloured = 8

Q 4. How many of the smaller cubes have exactly two faces coloured?

**Solution 4**

In the figure look at the two faces coloured small cubes:

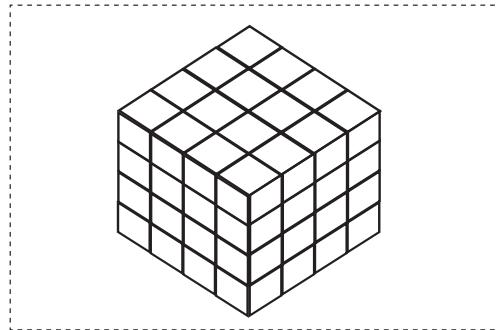


We can see that along every edge, there are two cubes painted with two colours.

So, the total number of small cubes painted on exactly two of their faces =  $2 \times 12 = 24$

Q 5. How many of the smaller cubes have exactly one face coloured?

**Solution 5**



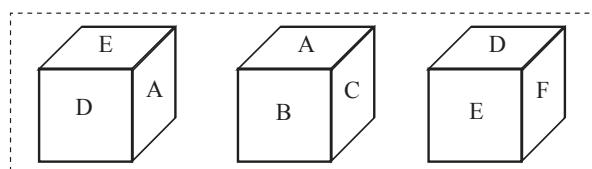
It can be seen from the above figure that the total number of cubes coloured on only one of their faces =  $4 \times 6 = 24$

Alternatively, the total number of small cubes = Total number of cubes painted on (one face + two faces + three faces + no face).

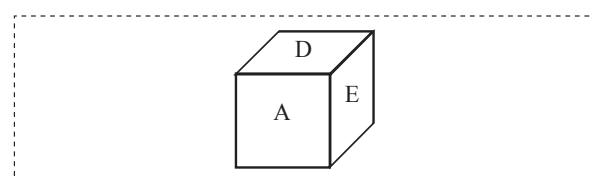
So, the total number of cubes painted on only one of their faces =  $64 - 8 - 8 - 24 = 24$

**Example 6**

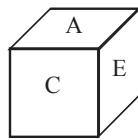
Q 6. In this question, three views of a cube are given. If the same cube is rotated in a particular way, it will give rise to different views. Four such views are given in the options. However, out of the four options given, one of the options does not conform to the original cube. Mark that option as your answer. (The letters used are only to mark the different faces of the cube.)



(a)



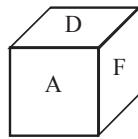
(b)



- (a) Son  
(c) Cousin

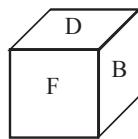
- (b) Brother  
(d) Grandson

(c)

**Solution 7**

(d) Son of Y's son—Y's grandson; brother of Y's grandson—Y's grandson.

(d)

**Example 8**

Q 8. Amit introduces Rahul as the son of the only brother of his father's wife. How is Rahul related to Amit?

- (a) Cousin      (b) Son  
(c) Uncle      (d) Son-in-law

**Solution 8**

Generally, in these kind of questions, we should start from the end of the question.

Father's wife = Mother

Only brother of his father's wife = Only brother of Mother = Maternal Uncle

Son of the only brother of his father's wife = Son of maternal uncle = Cousin

So, Rohit is Anil's cousin and the answer is (a).

**Solution 6**

From the given figure, it can be inferred that the four faces adjacent to face A are—B, C, D and E. Hence, face 'F' cannot be adjacent to face 'A'.

Hence, option (c) is wrong.

**➤ FAMILY TREE**

Questions pertaining to the following information of expected in the section related to Family Tree:

- The relationship of one person with the other person will be required to be found out.
- The relationship will be provided and the sex of the person will be needed to be determined.
- The total number of males or females in the family will be required to be found out

The skill set required to solve these kinds of questions is very simple—Do we have the ability to translate the given situation in the question into our real life? The more easily we do this, the easier it will be to solve the questions relating to 'The Family Tree'.

**□ Example 7**

Q 7. If X is the brother of the son of Y's son, how is X related to Y?

**➤ SYLLOGISM**

In Syllogism, we study the given statements in order to substantiate the derived conclusions.

The evidence provided to substantiate the conclusions are known as premises and that which is drawn on the basis of the premises is a conclusion. Thus Syllogism can be understood to be a piece of reasoning providing 'relational arrangement' between premises and conclusions.

Let us first understand the various terms involved:

Statement 1: Some of the Indians are men.

Statement 2: All men have the potential to be good.

Conclusion: Some Indians have the potential to be good.

In the above given statements, statement 1 and statement 2 are premises and conclusion is to be verified on the basis of the premises given. It is also to be noted that:

- Propositions and statements are not the same thing.
- While finding out the conclusion, we should not be concerned with the vocabulary of the terms involved in the statements. Rather we should treat them in isolation, without taking their literal meaning into account. To understand it better, if it is given that 'All boys are good', we cannot derive any relationship between boys and bad (opposite of good), unless some association between bad and good is given in the original question.

## **Types of Statements and the Ways to Represent them**

Famous European philosopher Aristotle and other classical logicians divided the categorical statements into four types:

### **Universally Affirmative Statement**

Whenever we say that “All girls are good”, we are simply accepting the relationship between the two entities ‘girls’ and ‘good’ in such a way that anything or anybody who is a girl, has to be good. We may assume that there is such a thing called girls. But the meaning of the above premise does not depend upon the assumption that girls exist.

These kinds of statements are known as Universally Affirmative Statements because they give the impression of the statement being universally true. Like all the girls present anywhere can be anything else, but simultaneously have to be good also. And there cannot be any exception to this rule.

Examples:

- All goats are animals.
- All actresses are beautiful.
- All prime numbers are natural numbers.

Universally affirmative statements can be also rephrased using the word ‘only’.

‘All goats are animals’ can be written as – only animals are goats.

Or, ‘All actresses are beautiful’ can be written as – only the beautiful are actresses.

Or, ‘All prime numbers are natural numbers’ can be written as – only natural numbers are prime numbers.

### **Universally Negative Statement**

Whenever we say that, “No man is perfect”, we are simply accepting the relationship between two entities ‘man’ and ‘perfect’ in such a way that anything or anybody who is a man cannot be perfect. We may assume that there is such a thing called a man. But the meaning of the above premise does not depend upon the assumption that man exists.

These kinds of statements are known as Universally Negative Statements because they give the impression of the statement being universally true. Like all the men present anywhere might not be anything else too, but simultaneously they cannot be perfect also. And there cannot be any exception to this rule.

Examples:

- No Indian is a coward.
- No prime number is a fraction.
- No dream is unachievable.

### **Particular Affirmative Statement**

Whenever we say that, “Some movies are boring”, we are simply accepting the relationship between two entities ‘movies’ and ‘boring’ in such a way that some of the movies have to be boring. It also means that all the movies cannot be not-boring. We may assume that there is such a thing called

‘movies’. But the meaning of the above premise does not depend upon the assumption that movies exist.

These kinds of statements are known as Particular Affirmative Statements because they give the impression of the statement being true in some particular cases and not in all the cases. Hence, it falls short of being a universal fact or a universally affirmative statement.

Example:

- Some dogs are rich.
- Some people are happy.
- Some bosses are stupid.

### **Particular Negative Statement**

Whenever we say that, “Some numbers are not integers”, we are simply accepting the relationship between two entities ‘numbers’ and ‘integers’ in such a way that some of the numbers have to be non-integers. We may assume that there is such a thing called ‘numbers’. But the meaning of the above premise does not depend upon the assumption that numbers exist.

These kinds of statements are known as Particular Negative Statements because they give the impression of the statement being true in some particular cases and not in all the cases.

Example:

- Some scorpions are not honest.
- Some managers are not effective.
- Some relationships are not manageable.

## **Representing the Statements and Standard Deductions**

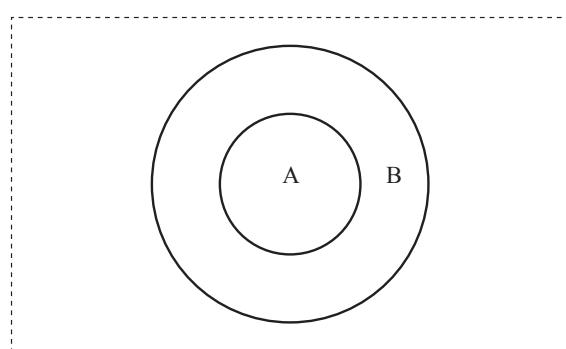
Normally, the statements given above construct a major part of any question in a syllogism. To represent these, we can either apply the subject-predicate form or the Venn-diagram method. We will see both these methods one by one:

### **Universally Affirmative Statement**

Consider the example—All A are B.

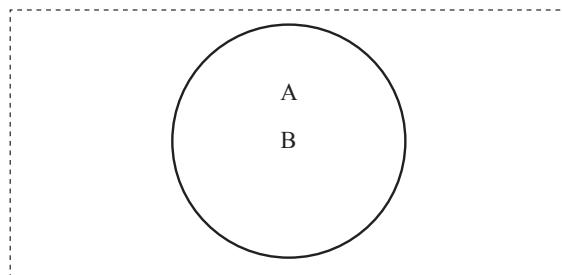
Subject-predicate form: These types of statements are known as ‘A-type’ statements.

Venn-Diagram form: In the Venn-diagram form, we can represent A-type statements in the following ways:



## 4.62 ◊◊ Understanding Logical Reasoning

In the above form, A is included inside B. And obviously set B is bigger than set A.



In the above form, set A and set B are of the same size.

Following are the deductions which can be made from the above given statement:

- Some A are B.
- Some B are A.

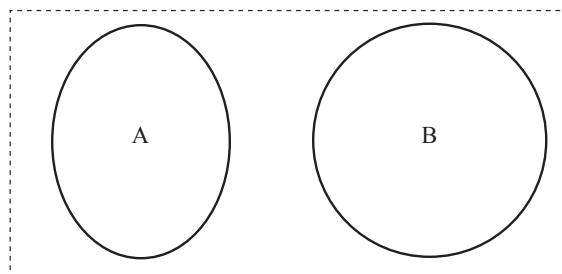
The given deductions are definitely true, however, we can derive some more ‘probably true’ deductions from the above statement. For example—‘Some B are not A’ is probably a true statement. And similarly, ‘some A are not B’ is a definitely false statement.

### □ Universally Negative Statement

Consider the example—No A are B.

Subject-Predicate form: These types of statements are known as ‘E-type’ statements.

Venn-Diagram form:



Following are the deductions which can be made from the above given statement:

- No B are A.
- Some A are not B.
- Some B are not A.

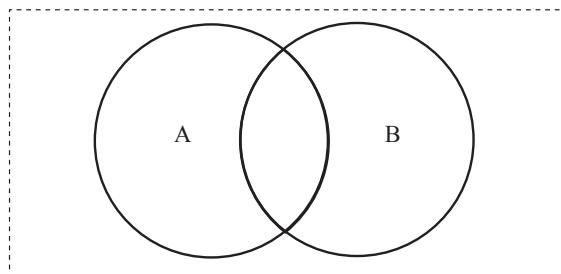
The above given deductions are definitely true.

### □ Particular Affirmative Statement

Consider the example—Some A are B.

Subject-Predicate form: These types of statements are known as ‘I-type’ statements.

Venn-Diagram form:



Following are the deductions which can be made from the above given statement:

- Some B are A.

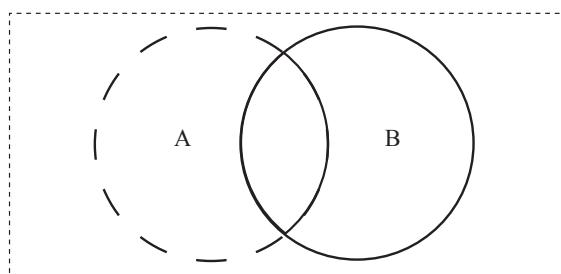
The above given deduction is definitely true, however we can derive some more ‘probably true’ deductions from the above statement. E.g., ‘Some B are not A’ is probably a true statement.

### □ Particular Negative Statement

Consider the example—Some A are not B.

Subject-Predicate form: These types of statements are known as ‘O-type’ statements.

Venn-Diagram form:



The following are the deductions which can be made from the above given statement:

- All A are not B.

However, we cannot make any deduction of A, E, I or O format from this statement.

Summarizing the whole discussion till now, we can have the following conclusions drawn:

	Affirmative	Negative
Universal	All (A)	No (E)
Particular	Some or Many (I)	Some not or Many not (O)

We can see the summary of all the standard deductions in a table format also:

<b>Given statement</b>	<b>Deduction</b>	<b>Truth-metre</b>	<b>Summary</b>
All A are B	Some A are B	Definitely True	'All' can give only 'Some' as definitely true statement.
	Some B are A	Definitely True	
	Some B are not A	Probably True	
	Some A are not B	Definitely False	
Some A are B	Some B are A	Definitely True	'Some' can give only 'some' as definitely true statement.
	Some B are not A	Probably True	
	Some A are not B	Probably True	
Some A are not B	No 'Definitely True' deduction possible		
	Some B are not A	Probably True	
No A are B	No B are A	Definitely True	'No' can give only 'No' or 'Some + Not' as definitely true statement.
	Some A are not B	Definitely True	
	Some B are not A	Definitely True	

### Remember that

- No positive statement can give rise to any negative definitely true conclusion.
- No negative statement can give rise to any positive definitely true conclusion.

Besides the standard AEIO statements, there are a few more statements which are used in Syllogism:

<b>Given statement</b>	<b>Deduction</b>	<b>Truth-meter</b>	<b>Summary</b>
Only A are B	All B are A	Definitely True	All the conclusions related to the Some format will be true.
	Some A are B	Definitely True	
	Some B are A	Definitely True	
All A is not B	Some A are not B	Definitely True	
	Some B are not A	Probably True	

Deductions of two or more than two statements of AEIO type together:

<b>First statement type</b>	<b>Second statement type</b>	<b>Possible 'definitely true' conclusions</b>	<b>Not possible</b>
All	Some	Some	No/Some Not
	All	All/Some	No/Some not
	No	Some not/No	Some All
	Some not	No conclusion is possible	
Some	All	Some	All/Some not/ No
	Some	No such conclusion possible	
	No	Some not	All/No/Some
	Some not	No conclusion is possible	
No	All	So/Some not	All/Some
	Some	Some not	All/No/Some
	No	No/Some not	All Some
	Some not	No conclusion is possible	
Some not	All	No conclusion is possible	
	Some		
	Some not		
	No		

### ➤ APPROACHING A QUESTION

Till now we have seen two forms of representing the statements—(i) Subject-predicate form and (ii) Venn Diagram form. Each of these two methods have their own pros and cons. However, in my viewpoint, each and every question of syllogism is nothing but the juggling of words; and the only skill required to excel in syllogisms is having a clear understanding of the variety of statements used.

From here, we will pick up the pros of both the above mentioned forms and generate a three step hybrid method of solving the questions using the above given table.

- Step 1: Find if the statement is affirmative or negative.
- Step 2: Eliminate the option with a negative connotation if the statements given are affirmative and vice versa.
- Step 3: Try to eliminate the remaining options by using the given methods. Start with the negative approach—try to prove that the given conclusion is not true and show in at least one way that the

particular conclusion can be wrong. The conclusion which cannot be shown wrong in any way is definitely true.

### □ Example 9

- Q 9. Statements: (i) Some cars are houses.  
 (ii) All houses are guys.  
 (iii) All guys are cows.

- Conclusions: (a) Some cows are cars.  
 (b) Some cows are houses.  
 (c) Some cows are guys.  
 (d) Some guys are not cars.

Which of the above given conclusions is/are definitely true?

### Solution 9

Let us verify the conclusions one by one.

Conclusion (a) Some cows are cars.

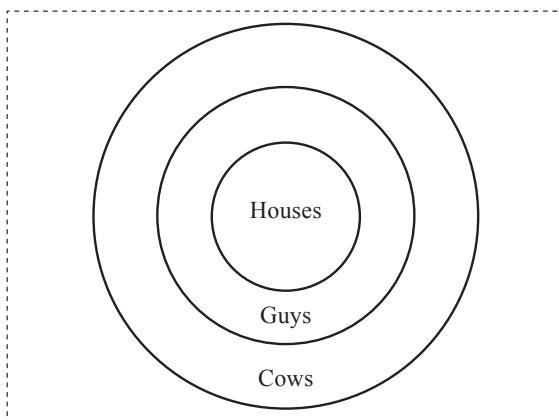
Using any two statements only, we cannot have any relationship between cows and cars. To find out the relationship between cows and cars, we need to use any two statements first and then using the conclusion derived from here, we will find out the relationship between cows and cars.

Using statement (ii) and statement (iii),

All houses are guys → All guys are cows → All houses are cows.  
 .....(iv)

Middle term used here is guys. So, we will use the statements where ‘guys’ is present. After combining both the statements, the middle term will get eliminated and the terms ‘guys’ and ‘cows’ will be left.

We can see this through a venn diagram also:

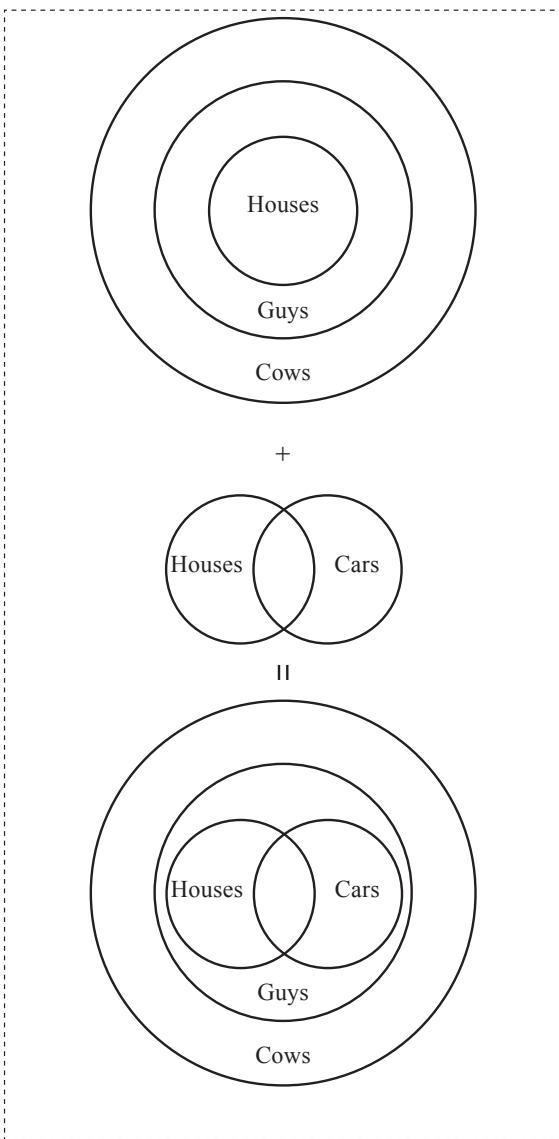


Using statement (i)

Some cars are houses → Some houses are cars.

Combining statements (i) and (iv), since all the houses are cars, so definitely anything which is a house has to be cows. Now, some houses are cars—and anything which is a house is a cow—so some cars are cows.

This can be seen through a Venn diagram also:



Conclusion (b) Some cows are houses.

To have a relationship between ‘cows’ and ‘houses’, we need to use all the three statements.

Using statement (ii) and statement (iii),

All houses are guys → All guys are cows → All houses are cows.  
 .....(iv)

Using (iv) and (i), Since all the houses are cows and some houses are cars, so obviously some cows are cars. And this fact that ‘some cows are cars’ cannot be refuted in anyway. It can be observed through the above given venn diagram also.

So, conclusion (b) is also definitely true.

Conclusion (c) Some cows are guys.

Using statement (c), ‘some cows are guys’ is a definitely true conclusion.

Conclusion (d) Some guys are not cars.

Since the given statements are affirmative, and the conclusion given is negative, so it cannot be a valid conclusion.

Hence, conclusion (a), (b) and (c) are definitely true.

### □ Example 10

- Q 10. Statements: (i) Some panthers are cats.  
(ii) All cats are animals.  
(iii) Some animals are not panthers.
- Conclusions: (a) Some animals are panthers.  
(b) All panthers are animals.  
(c) All cats are panthers.  
(d) All animals are panthers.

Which of the above given conclusions is/are definitely true?

### Solution 10

As we have seen that statements like "Some A are not B" cannot contribute anything, so whatever conclusions are coming have to come from the first two statements.

Now understand the first two statements:

All cats are animals—Anything and everything which is a cat has to be an animal also. 'Cat' can be simultaneously 'dog' or 'god' or anything else too, but it has to be an animal also.

Some panthers are cats → Some cats are panthers

As we have discussed above, anything which is a cat has to be an animal also and some cats are panthers, hence, we can conclude that some animals are panthers.

Now look at the conclusions:

Conclusion (a)—It is obviously true.

Conclusion (b)—Using statement (b) and statement (c) together, we can have the conclusion only in 'Some'. Since conclusion (b) has a statement in 'ALL', it is not a valid conclusion.

On the same grounds, conclusion (c) and conclusion (d) are invalid conclusions.

### □ Example 11

- Q 11. Statements: (i) Some panthers are cats.  
(ii) No panther is a river.  
(iii) All rivers are roads.
- Conclusions: (a) No cat is a river.  
(b) Some roads are rivers.  
(c) Some cats are not a river.  
(d) Some rivers are not a cat.

Which of the above given conclusions is/are definitely true?

### Solution 11

We will evaluate each of the conclusions one by one:

Conclusion (a)—The relationship between 'cat' and 'river' can be established only through statement I and

statement II. Looking upon the nature of statements (a) and (b), we can say that the conclusion can only be in "Some + Not", and not in "No". Hence, it is an invalid conclusion.

Conclusion (b)—The relationship between 'roads' and 'rivers' can be established through statement (iii). Since 'all rivers are roads', so it can be concluded that 'some roads are rivers'.

Conclusion (c)—The relationship between 'river' and 'cats' can be established using statement i and statement ii. The conclusion has to be of the type "Some + Not".

Let us understand the statements:

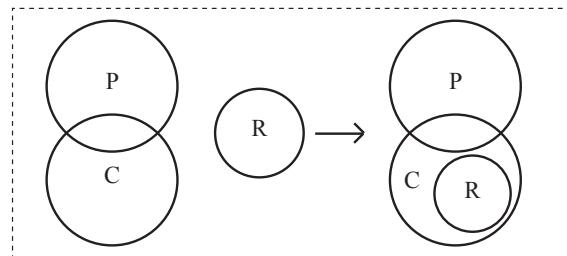
Statement (i) Some panthers are cats – At least one panther has to be there which is a cat. We cannot comment about the remaining panthers if they are cats or not.

Statement (ii) No panther is a river – Anything cannot be a panther and a river simultaneously.

Now use both the statements: Statement (a) tells us that at least one panther is a cat or vice versa, and statement ii tells us that If anything is a panther, then that cannot be a river and vice versa. Hence, we can conclude that at least one cat is there which is not a river. So, it can be validly concluded that 'Some cats are not a river.'

Conclusion (d)—Prima facie, it appears that conclusion (d) is true. And if we see this conclusion in the absence of conclusion (c), it appears definitely true, however, it is only probably true.

To evaluate this conclusion, we should ideally take the recourse of a venn-diagram:



Obviously, all the rivers are cat in the above given diagram. So, conclusion (d) cannot be definitely true.

Hence, conclusion (b) and conclusion (c) are definitely true.

### ➤ BOOLEAN LOGIC

Boolean Logic is a form of algebra in which all values are reduced to either true or false. It was developed by the English mathematician George Boole in the mid-19th century. Its rules govern logical functions (true/false) and are the foundation of all electronic circuits in a computer. As add, subtract, multiply and divide are the primary operations of arithmetic, AND, OR and NOT are the primary operations of Boolean logic. Boolean logic is turned into logic gates on the chip, and the logic gates make up logic circuits that perform functions such as, how to add two numbers together.

However, we would be concerned here with the logical application of Boolean Logic in True/False situations only. Boolean Logic is, sometimes, also referred to as Binary Logic.

Let us see a Boolean Logic situation:

On a fictional island, all the inhabitants are either knights, who always tell the truth, or knaves, who always lie. The question set involves a stranger to the island who meets small groups of inhabitants there.

Usually the aim is for the visitor to conclude the inhabitants' type from their statements but some questions of this type ask for other facts to be deduced. The question may also be to determine a Yes/No question which the visitor can ask in order to discover what he needs to know.

A primitive example of this type of question involves three inhabitants referred to as A, B and C. The visitor asks A what type he is, but does not hear A's answer. B then says "A said that he is a knave" and C says "Do not believe B: he is lying!"

To solve the puzzle, understand that no inhabitant can say that he is a knave. Reason for this can be given as—if somebody is a knight, then he speaks the truth always and of course he cannot say that "I am a knave." Similarly, if somebody is a knave, then he speaks false always. Now, if somebody speaks false only, he cannot say that he always speaks false as this amounts to contradiction.

Coming back to the original question, hence, B's statement must be untrue, so he is a knave, and C's statement must be true, so he is a knight. Since B is a knave, he will always lie. Therefore B was lying when he said that A had said he was a knave. Therefore A must have said that he was a Knight.

## □ Some More Examples of Knights and Knaves

A large number of elementary Boolean Logic questions can be solved by using the simple logic or elementary Boolean Algebra (or, logic truth tables). To increase our familiarity with Boolean Logic and its simplification process, let us see some more basic questions.

### □ Example 1

Jain and Baid are residents of the island of knights and knaves.

Jain says: We are both knaves. Who is who?

#### **Solution**

This is what Jain is saying in a more extended form:

"Jain is a knave and Baid is a knave."

If Jain was a knight, he would not be able to say that he was a knave since he would be lying. Therefore the statement "Jain is a knave" must be true.

Since knaves lie and one statement is true, hence, to make the statement given by Jain false, the other statement

must be false. Therefore the statement "Baid is a knave" must be false which leads to the conclusion that Baid is a knight.

The solution is that Jain is a knave and Baid is a knight.

Alternatively, we can use Boolean algebra to find out who's who as follows:

Let J be true if Jain is a knight and let B be true if Baid is a knight. Now, either Jain is a knight and what he said was true, or Jain is not a knight and what he said was false. Translating that into Boolean algebra, we get:

Jain is a knave and Baid is a knight. (Although we can do this question without using Boolean algebra very easily.)

### □ Example 2

Here is a rendition of perhaps the most famous of Boolean Logic questions:

A prince visits an island inhabited by Knights and Knaves. Knights always tell the truth and knaves always lie.

The prince comes to a fork in the road. He needs to know which road leads to the jungle so as to rescue the princess. (Although the prince does not know it, the south road leads to the jungle and the north road leads to the monster.)

Standing at this fork in the road are a knight and a knave, but the prince cannot tell who is who. What question should he ask to find the road to the jungle so that he can save the princess?

#### **Solution**

Simply asking which road leads to the jungle would not help. The answer would not tell us who is lying and who is telling the truth. However, we only need to talk to one of them. The trick is to ask a question where the response will be the same from both of them: a question that incorporates how a knight or a knave not answering would respond to the same question.

For example, what if we say to one of them, "If I asked a member of the type you do not belong to, which road I should take to get to the jungle, what would he say?"

- If we ask a truth-teller, the response will be: "He would say to take the north road." The road to the castle is the south road so the liar will tell us to take the north road, and the truth teller will faithfully report this to us.
- If we ask a liar, the response will be: "He would say to take the north road." The road to the jungle is the south road and the truth teller will tell us to take the south road, but the liar will not report this faithfully to us—he will say the opposite.

In both cases we will get the same response. We should do the opposite of what we have been told because, regardless of whether we are speaking to a liar or a truth teller, our question will always produce the wrong answer regarding the road that we should take.

## ☐ Variations in Knights and Knaves Problems

In some variants, inhabitants may also be alternators, who alternate between lying and telling the truth; or normals, who can say whatever they want (as we can see in the case of Knight/Knave/Spy puzzles). A further complication can be added by bringing in the situation where the inhabitants may answer yes/no questions in their own language; and the visitor knows that “bal” and “da” mean “yes” and “no” but does not know which is which. Therefore, this question will now lead to two Y-junctions.

Knights always tell the truth.

Knaves always lie.

Spies can either lie or tell the truth.

Normally, we encounter a group of three people, A, B and C and one of them is a Knight, one of them is a Knave and the one left is a spy, but we do not know who is who. However, they all know the identity of each other.

## ☐ Example 1

A says: I am a knight.

B says: That is true.

C says: I am the spy.

### Solution

We can understand that neither B nor C can be the knight. (B is saying that somebody else is a knight and C says that he is a spy). Hence, A is a knight. What B is saying is true so he cannot be the knave. Hence, he is the spy. So, C is the knave.

## ☐ Example 2

A says: B is the spy.

B says: No, C is the spy.

C says: No, B is definitely the spy.

### Solution

B cannot be the spy, as in that case both a knave and a knight would be accusing him of being the spy. And if B is not the spy, then in that case neither A nor C can be the knights since they would not be telling the truth. Hence, B is a knight, as a result A and C are knave and spy respectively.

There can be only six possibilities of Knights, knaves and its spy that we can have for any particular set:

- Knight Knave Spy
- Knight Spy Knave
- Knave Spy Knight
- Spy Knight Knave
- Knave Knight Spy
- Spy Knave Knight

Any statement made by a person in a question can be classified into various possibilities. For example—the statement that ‘I am a knave’ cannot be made by a knight, a knave. Hence, anybody making this statement has to be a spy. Similarly, the statement ‘I am a spy’ cannot be made by a knight. Hence, anybody making this statement has to be either a knave or a spy.

However, there can be some useless statements too like ‘I am a knight’. It can be seen that this statement can be made by anybody—a knight or a knave or a spy.

## ➤ PRACTICE EXERCISE 1: CUBES

**Directions** for questions 1 to 4: *Read the following passage below and solve the questions based on it.*

A large cube is dipped into a tub filled with colour. When the cube is taken out it was observed that all its sides are painted. This large cube is now cut into 125 small but identical cubes.



**Directions for questions 5 to 9:** Read the following passage and solve the questions based on it.

There is a cube in which one pair of opposite faces is painted red, another pair of opposite faces is painted blue and the third pair of opposite faces is painted pink. This cube is now cut into 216 smaller but identical cubes.

- Q 5. How many small cubes will there be with no red paint at all?  
(a) 121                    (b) 144  
(c) 169                    (d) None of these

Q 6. How many small cubes will there be with at least two different colours on their faces?  
(a) 49                    (b) 64  
(c) 56                    (d) 81

Q 7. How many small cubes will be there without any face painted?  
(a) 64                    (b) 49  
(c) 36                    (d) None of these

Q 8. How many small cubes will there be with only red and pink on their faces?  
(a) 9  
(b) 12  
(c) 27  
(d) 16

Q 9. How many small cubes will there be showing only pink or only blue on their faces?  
(a) 64  
(b) 81  
(c) 125  
(d) None of these

**Directions for questions 10 to 14:** Read the following passage and solve the questions based on it.

There is a cube in which one pair of adjacent faces is painted black; the second pair of adjacent faces is painted blue and the third pair of adjacent faces is painted green. This cube is now cut into 216 smaller and identical cubes.



**Directions for questions 15 to 18:** Read the following passage and solve the questions based on it.

A large cube is painted on all its six faces. Now it is cut into a certain number of smaller identical cubes. It was found that among the smaller cubes, there were eight cubes which did not have any face painted.

**Directions** for questions 19 to 26: *Read the following passage and solve the questions based on it.*

Three different faces of a cube are coloured in three different colours—black, green and blue. This cube is now cut into 216 smaller but identical cubes.

Q 19. What is the least number of the smaller cubes that will have exactly three faces coloured?



Q 20. How many smaller cubes have exactly two faces coloured?

- (a) 12
  - (b) 15
  - (c) 16
  - (d) Cannot be determined

Q 21. What is the least number of small cubes that have only one face coloured?



Q 22. What is the largest number of small cubes that have only one face coloured?



Q 23. What is the least number of small cubes that have exactly one face coloured black and no other face coloured?

- (a) 12
  - (b) 18
  - (c) 24
  - (d) None of these

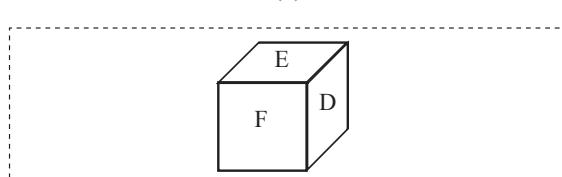
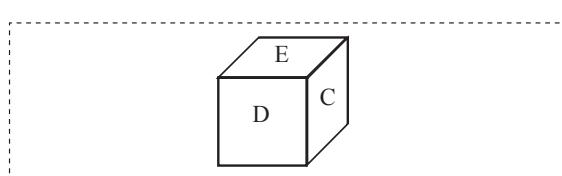
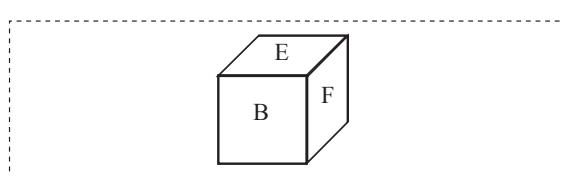
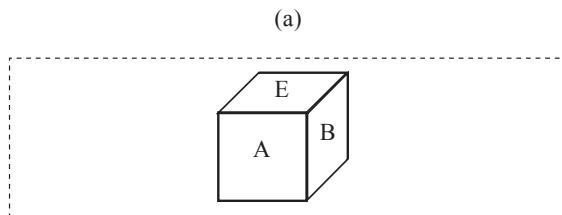
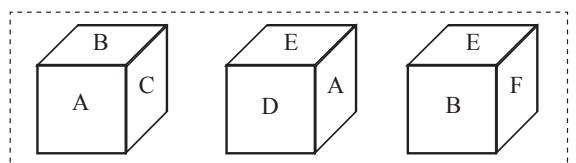
Q 24. What is the maximum number of small cubes that have one face coloured green and one face blue and no other face coloured?



Q 25.  $N$  is the number of cubes that is not coloured on any of its faces. Which of the following best describes the value of  $N^2$ ?

- Varde SPM:  
 (a)  $125 < N < 130$   
 (b)  $120 \leq N \leq 125$   
 (c)  $115 \leq N \leq 120$   
 (d)  $100 \leq N \leq 125$

**Q 26.** In this question, three views of a cube are given. If the same cube is rotated in a particular way, it will give rise to different views. Four such views are given in the options. However out of the four options given, one of the options does not confirm to the original cube. Mark that option as your answer. (The letters used are only to mark the different faces of the cube.)



#### ➤ PRACTICE EXERCISE 2: FAMILY TREE

**Directions** for questions 1 to 4: *Read the following passage below and solve the questions based on it.*

There is family of six persons A, B, C, D, E and F. The following information pertains to the members of this family:

- (i) There are two married couples and the family members belong to three generations.
  - (ii) Each member has a distinct choice of colour namely green, yellow, black, white, red and blue.
  - (iii) No lady member likes green or white.
  - (iv) C, who likes the colour black is the daughter-in-law of E.
  - (v) B is the brother of F and son of D and he likes blue.
  - (vi) A is the grandmother of F and F does not like red.
  - (vii) There is a man who likes green and his wife likes the yellow colour.

Q1 Which of the following is one of the married couples?

**Directions for questions 5 to 8:** Read the following passage and solve the questions based on it.

- (i) In a family of six members A, B, C, D, E and F each one plays one game out of the following six games: snooker, carom, table tennis, badminton, bridge and cricket.
  - (ii) Two are married couples.
  - (iii) B who plays carom, then is daughter in law of E.
  - (iv) A is the father of D, the table tennis player, and D is the father of C, who plays cricket.
  - (v) F is the brother of C.
  - (vi) Snooker is not played by a female member.
  - (vii) E's husband plays badminton.



- Q 6. How is F related to A?  
(a) Granddaughter (b) Grandson  
(c) Son (d) Daughter

- Q 7. Who is the husband of B?

  - (a) Cannot be determined
  - (b) A
  - (c) C
  - (d) D

- Q 8. How many male members are there in the family?  
(a) Two only      (b) Three only  
(c) Four only      (d) Data inadequate

**Directions** for question 9 to 15: *Read the following passage and solve the questions based on it.*

- (i) M is the daughter of N
  - (ii) N is the son of O
  - (iii) O is the father of P

- Q 9. Which of the following statements is true?

  - (a) M is the uncle of O
  - (b) P and N are brothers
  - (c) M is the daughter of P
  - (d) If B is the daughter of N, then M and B are sisters



**Directions for questions 16 to 18:** Read the following passage and solve the questions based on it.

- (i) In a joint family of seven persons A, B, C, D, E, F and G, there are two married couples.

(ii) G is a housewife and her husband is a lawyer. ‘C’ is the wife of ‘B’, ‘A’ is an engineer and is the granddaughter of ‘G’. ‘D’ is the father-in-law of ‘C’, a doctor, and father of ‘E’, a professor. ‘F’ is A’s brother and B’s son.

- Q 16. How is F related to C?

  - (a) Son
  - (b) Brother
  - (c) Daughter
  - (d) Data inadequate

- Q 17. How is B related to E?  
(a) Sister                  (b) Uncle  
(c) Cousin                  (d) None of these



**Directions for questions 19 to 20:** Read the following passage, and solve the questions based on it.

Prakash, Qureshi, Rajesh and Shabdehs live together in a house.



- (a) Only III follows
- (b) Only III and IV follow
- (c) Only I and IV follow
- (d) Only I and III follow

Q 6. Statements: (i) All khiladis are spectators.  
 (ii) Some spectators are theatres.  
 (iii) Some theatres are movies.  
 Conclusions: I. Some movies are spectators.  
 II. Some khiladis are movies.  
 III. Some theatres are khiladis.  
 IV. All spectators are khiladis.

- (a) Only II follows
- (b) None follows
- (c) Only II and IV follow
- (d) Only I and III follow

Q 7. Statements: (i) Some buckets are salts.  
 (ii) All salts are ipods.  
 (iii) Some ipods are woods.  
 Conclusions: I. Some woods are salt.  
 II. Some buckets are woods.  
 III. Some ipods are buckets.  
 IV. Some woods are buckets.

- (a) None follows
- (b) Only II follows
- (c) Only III follows
- (d) Only IV follows

Q 8. Statements: (i) Some channels are mobiles.  
 (ii) Some mobiles are computers.  
 (iii) Some computers are stations.  
 Conclusions: I. Some stations are channels.  
 II. Some mobiles are stations.  
 III. Some computers are channels.  
 IV. All channels are stations.  
 (a) None follows  
 (b) Only I and II follow  
 (c) Only I, II and III follow  
 (d) Only II and III follow

Q 9. Statements: (i) All leaves are dim.  
 (ii) No dim is brush.  
 (iii) All tops are brushes.  
 Conclusions: I. Some tops are leaves.  
 II. Some dim is top.  
 III. Some dim is leaf.  
 IV. Some tops are brushes.  
 (a) All follow  
 (b) Only I and II follow  
 (c) Only II and III follow  
 (d) Only III and IV follow

Q 10. Statements: (i) All noodles are threads.  
 (ii) All threads are boxes.  
 (iii) All trees are boxes.  
 Conclusions: I. No noodle is a tree.  
 II. Some trees are threads.  
 III. Some boxes are noodles.  
 IV. Some trees are noodles.

- (a) Only either I or IV follows.
- (b) Only either I or IV and II follow.
- (c) Only III follows.
- (d) Only either I or IV and III follow.

Q 11. Statements: (i) Some mountains are rivers.  
 (ii) Some rivers are deserts.  
 (iii) All deserts are roads.  
 Conclusions: I. Some roads are rivers.  
 II. Some roads are mountains.  
 III. Some deserts are mountains.

- (a) None follows
- (b) Only I follows
- (c) Only II and III follow
- (d) Only I and II follow

Q 12. Statements: (i) Some cars are flowers.  
 (ii) All flowers are plants.  
 (iii) Some plants are leaves.  
 Conclusions: I. Some plants are cars.  
 II. Some leaves are flowers.  
 III. No car is a leaf.

- (a) None follows
- (b) Only I follows
- (c) Only II follows
- (d) Only I and III follow

Q 13. Statements: (i) All homes are mountains.  
 (ii) All glasses are mountains.  
 (iii) Some mountains are windows.  
 Conclusions: I. Some windows are glasses.  
 II. Some homes are windows.  
 III. Some mountains are glasses.

- (a) Only I follows
- (b) Only II follows
- (c) Only III follows
- (d) None follows

Q 14. Statements: (i) Some homes are tables.  
 (ii) Some tables are gardens.  
 (iii) All lanterns are gardens  
 Conclusions: I. Some lanterns are tables.  
 II. Some gardens are homes.  
 III. Some lanterns are homes.

- (a) None follows
- (b) Only I follows
- (c) Only II follows
- (d) Only III follows

Q 15. Statements: (i) All ships are buses.  
 (ii) No room is a bus.  
 (iii) All boats are rooms.  
 Conclusions: I. No boat is a ship.  
 II. No bus is a boat.  
 III. No ship is a room.

- (a) Only I and II follow
- (b) Only II and III follow
- (c) Only I and III follow
- (d) All follow

- Q 16. Statements: (i) All books are copies.  
 (ii) All copies are pencils.  
 (iii) No pencils are erasers.

Conclusions: I. No erasers are books.  
 II. No copies are erasers.  
 III. Some pencils are copies.  
 IV. All books are pencils.  
 (a) Only I, II and III follow  
 (b) Only II, III and IV follow  
 (c) Only I, III and IV follow  
 (d) All follow

- Q 17. Statements: (i) All coats are shirts.  
 (ii) Some shirts are caps.  
 (iii) No caps are trousers.

Conclusions: I. Some coats are caps.  
 II. Some trousers are not shirts.  
 III. No coats are trousers.  
 IV. Some caps are shirts.  
 (a) Only IV follows  
 (b) Only I and IV follow  
 (c) Only I, II and IV follow  
 (d) None of these

- Q 18. Statements: (i) No toys are bats.  
 (ii) Some bats are boxes.  
 (iii) All boxes are pots.

Conclusions: I. Some bats are not toys.  
 II. Some toys are not boxes.  
 III. Some pots are bats.  
 IV. Some pots are not toys.  
 (a) Only I and III follow  
 (b) Only I, III and IV follow  
 (c) Only I, II and III follow  
 (d) None of these

- Q 19. Statements: (i) No slates are pencils.  
 (ii) All pencils are dusters.  
 (iii) No pencils are chalks.

Conclusions: I. Some dusters are slates.  
 II. No dusters are slates.  
 III. No slates are chalks.  
 IV. Some slates are chalks.  
 (a) Only I and III follow  
 (b) Only either I or II and III follow  
 (c) Only I and either III or IV follow  
 (d) None of these

- Q 20. Statements: (i) Some phones are radios.  
 (ii) Some radios are recorders.  
 (iii) Some recorders are not televisions.

Conclusions: I. Some phones are recorders.  
 II. Some phones are not radio.  
 III. All phones are radios.  
 IV. Some radios are not televisions.  
 (a) Only IV follows  
 (b) Only I and IV follow  
 (c) Only I, II and IV follow  
 (d) None of these

**Directions for questions 21 to 31: Read the following passage and solve the questions based on it.**

Munchun's new interest is psychology. She has identified various personality patterns and given them names. These personality traits are inter-related as follows:

- (i) All Alessandras, Belissimas, Cessandras, Desdemonas, Elissimas and Firdauses are Queens.
- (ii) All Alessandras are Belissimas.
- (iii) No Belissima that is not an Alessandra is a Firdaus.
- (iv) Some Cessandras are Alessandras.
- (v) All Desdemonas are Cessandras.
- (vi) Some Cessandras are not Belissimas.
- (vii) No Desdemona is an Alessandra.
- (viii) All Queens and only Queens that are neither Belissimas nor Cessandras are Elissimas.

Q 21. Which of the following is true?

- (a) All Firdauses are Alessandras
- (b) Some Firdauses are Alessandras
- (c) All Firdauses are either Alessandras, Cessandras or Elissimas
- (d) Some Firdauses are Cessandras

Q 22. Which of the following is not true?

- (a) No Desdemonas are Belissimas
- (b) Some Belissimas are Desdemonas
- (c) Some Firdauses are both Belissimas and Cessandras
- (d) Some Queens are neither Belissimas nor Elissimas

Q 23. Which of the following cannot be said to be definitely true or false?

- I. No Belissima or Cessandra is an Elissima.
- II. Some Cessandras are Belissimas but not Alessandras.
- III. No Belissima is both an Alessandra and a Desdemona.
- (a) I only
- (b) II only
- (c) III only
- (d) I and II

Q 24. If Peter is not a Belissima, therefore,

- (a) Peter is not an Elissima.
- (b) If Peter is not a Queen, he is an Elissima or Cessandra.
- (c) If Peter is an Elissima, he is a Cessandra.
- (d) None of the above

Q 25. Statements: (i) All cars are trucks.

- (ii) No truck is a mare.
- (iii) All mares are animals.

Conclusions: I. No car is a mare.  
 II. Some animals are mares.  
 III. Some trucks are cars.  
 IV. Some cars are mares.

- (a) Only either I or IV and II follow
- (b) Only either I or II and both III and IV follow
- (c) Only either I or IV and both II and III follow
- (d) None of these

- Q 26.** Statements: (i) Some drums are vehicles.  
 (ii) Some vehicles are machines.  
 (iii) Some machines are mechanics.  
 Conclusions: I. Some mechanics are machines.  
 II. Some vehicles are drums.  
 III. Some machines are drums.  
 IV. Some mechanics are vehicles.  
 (a) Only I and II follow  
 (b) Only III and IV follow  
 (c) Only I and IV follow  
 (d) None follows
- Q 27.** Statements: (i) Some opels are televisions.  
 (ii) Some televisions are bulbs.  
 (iii) All lanterns are bulbs.  
 Conclusions: I. Some opels are lanterns.  
 II. Some opels are bulbs.  
 III. No lantern is opel.  
 IV. All bulbs are lanterns.  
 (a) Only IV follows  
 (b) Only II and III follow  
 (c) Only either II or III follows  
 (d) Only either I or III follows
- Q 28.** Statements: (i) All Cats are Lions.  
 (ii) Some Lions are Mice.  
 (iii) All mice are giraffes.  
 Conclusions: I. Some mice are cats.  
 II. Some giraffes are lions.  
 III. Some giraffes are cats.  
 IV. All giraffes are mice.  
 (a) Only I and II follow  
 (b) Only I and III follow  
 (c) Only II or III follows  
 (d) None of these
- Q 29.** Statements: (i) Some apples are bees.  
 (ii) No bee is a papaya.  
 (iii) All papayas are boys.  
 Conclusions: I. Some apples are boys.  
 II. Some boys are papayas.  
 III. Some boys are apples.  
 IV. Some bees are apples.  
 (a) None follows  
 (b) Only II and IV follow  
 (c) Only II and III follow  
 (d) None of these
- Q 30.** Statements: (i) Some tables are apartments.  
 (ii) All apartments are cars.  
 (iii) Some cars are trucks.  
 Conclusions: I. Some tables are trucks.  
 II. Some tables are cars.  
 III. Some cars are apartments.  
 IV. No truck is a table.  
 (a) Only II and III follow  
 (b) Either only I or II, III and IV follow  
 (c) Either only I or IV, and II and III follow  
 (d) All follow

- Q 31.** Statements: (i) All tables are phones.  
 (ii) Some phones are gadgets.  
 (iii) All gadgets are tables.  
 Conclusions: I. Some gadgets are phones.  
 II. Some gadgets are tables.  
 III. Some gadgets are not tables.  
 IV. Some tables are phones.  
 (a) Only I and II follow  
 (b) Only I and III follow  
 (c) Either II or IV follow  
 (d) None of these

### ➤ PRACTICE EXERCISE 4: BOOLEAN LOGIC

**Directions for Questions 1 to 5:** Read the following passage and solve the questions based on it.

There are two types of people living in Whatwhat island, X type and Y type. The X type of inhabitants always speak the truth and the Y type of inhabitants always lie.

- Q 1.** Munu says, “I always lie”. Which type of an inhabitant is she?  
 (a) X  
 (b) Y  
 (c) Either X or Y  
 (d) The given statement is infeasible.
- Q 2.** Chunmun says, “According to Munu, I always speak the truth.” Which of the following is a correct conclusion?  
 (a) Chunmun has to be of type X  
 (b) Chunmun has to be of type Y  
 (c) Munu has to be of type X  
 (d) Munu has to be of type Y
- Q 3.** Bhasker says, “Sharma and I are of the same type.” Which of the following is a correct conclusion?  
 (a) Bhasker and Sharma are necessarily of the same type.  
 (b) Sharma has to be of type X.  
 (c) Bhasker and Sharma cannot be of the same type.  
 (d) The given statement is infeasible.
- Q 4.** Rahul says “Pallavi and I are of different types.” Which of the following is a correct conclusion?  
 (a) Rahul and Pallavi are of type Y and type X respectively.  
 (b) Rahul and Pallavi cannot be of the same type.  
 (c) Pallavi has to be of Type Y.  
 (d) None of these
- Q 5.** Booker says, “At least one person among Shane and I always lies.” What types are Booker and Shane respectively?  
 (a) Y, X  
 (b) Y, Y  
 (c) X, Y  
 (d) It is not possible to deduce

**Directions for questions 6 to 8:** Read the following passage and solve the questions based on it.

On the Island of Who Went Where, there are only two kinds of people. Type No are those who, when they ask a question, must always get a ‘No’ for an answer and type Yes are those who must always get a ‘Yes’ for an answer to every question they ask.

- Q 6. Victor and Trish are married. Victor asks you: "Are both of us of type No?" You can conclude that:

  - (a) It is impossible for him to have asked such a question
  - (b) Victor is a No
  - (c) Trish is a No
  - (d) His type cannot be identified

Q 7. Jay, Ajay and Vijay all approach you. Jay asks, "Are at least two of us of the type No?" You can infer that:

  - (a) Jay is a No
  - (b) Jay is a Yes
  - (c) None of them is a No
  - (d) Cannot be determined

Q 8. Abhay, Lokesh and Rituraj approach you. Abhay asks, "Is it true that neither Lokesh nor Rituraj can be of the type yes?" You can infer that:

  - (a) Both Lokesh and Rituraj are No's
  - (b) Abhay is a No
  - (c) Abhay is a Yes
  - (d) None of the above

**Directions for questions 9 to 11:** Read the information given below and solve the questions based on it.

There are four members in a family—Kitto, Litto, Mitto and Nitto. Among these four persons, there is one couple, their son and their daughter. When asked about their relationships, the following were their replies:

Kitto: Nitto is my husband. Mitto is my daughter.

Kitto: Kitto is my husband. Mitto is my son.

Mitto: *Lotto is my mother. Rocco is my son.*  
Mitto: *Kitto and Litto are of the same gender. Litto is my sister.*

Nitto: Nitto is of the same gender as I. Nitto is my son.

It was known that only one of them always speaks the truth.

- Q 9. Among them, if there are two persons who always lie then who speaks the truth always?

  - (a) Kitto
  - (b) Mitto
  - (c) Nitto
  - (d) Cannot be determined

Q 10. Among the four, who cannot be the truth teller?

  - (a) Litto
  - (b) Mitto
  - (c) Nitto
  - (d) Cannot be determined

Q 11. Among them, if there are two persons who always alternate between truth and lie, then who speaks the truth always?

  - (a) Kitto
  - (b) Mitto
  - (c) Nitto
  - (d) Cannot be determined

**Directions for questions 12 to 16:** Read the following passage and solve the questions based on it.

There are three friends—A, R and U—in a group. Out of these three friends, one always speaks the truth, one always lies and the other one alternates between truth and lies. Exactly one of them is the owner of Cricinfo.com, the other one is the owner of funcinemas.com and the third one is the owner of terrificmail.com, in no particular order.

In a recent interview, each of them was asked—“Which website do you own?” Following is their reply pertaining to the above given question:

- A: I own cricinfo.com. U owns funcinemas.com.
  - U: I own cricinfo.com. R owns terrificmail.com.
  - R: A owns funcinemas.com. U owns cricinfo.com.



**Directions for question 17:** Read the following passage and solve the questions based on it.

A puzzle is defined by the statements of three people. Out of those three people, one is a knight who always tells the truth, one is a knave who always lies, and one is a spy who can either lie or tell the truth. If there is no assignment of ‘knight-knave-spy’ which is valid, the puzzle is a paradox. How many of the given sets will end up in a paradox?

**Directions for questions 18 to 20:** *Read the following passage and solve the questions based on it.*

Nobody had ever imagined that the level of politics in India will stoop so low that people will become indifferent and totally uninterested in Indian Politics. And as a result, they will even forget the name of their Prime Minister. And even the situation of the parliamentarians was no better. To hide the fact that they are unaware of the name of their Prime Minister, whenever they are asked the name of The Prime Minister, they make two statements—one which is true and the other which is false (If you cannot convince, then confuse). Following is the recorded transcript of the interview of three parliamentarians:

Rakhi: The Prime Minister (PM) claims that he is the PM.

I am the PM.

Sameera: I am the PM. Rakhi is the PM.

Mallika: I am the PM. Sameera knows who is the PM.

Q 18. Using the statements of which of the three, can we determine the PM?

- (a) Sameera's + Rakhi's
- (b) Sameera's + Mallika's
- (c) Mallika's + Rakhi's
- (d) Cannot be determined

Q 19. Who is the PM?

- (a) Sameera
- (b) Mallika
- (c) Rakhi
- (d) None of these three

Q 20. Whose first statement is false?

- (a) Sameera
- (b) Mallika
- (c) Rakhi
- (d) None of these three

# ANSWERS



## ☛ PRACTICE EXERCISE 1: CUBES

Q. No.	Answer						
1	(a)	2	(b)	3	(c)	4	(b)
5	(b)	6	(c)	7	(a)	8	(d)
9	(a)	10	(b)	11	(d)	12	(c)
13	(c)	14	(b)	15	(c)	16	(d)
17	(d)	18	(b)	19	(a)	20	(d)
21	(d)	22	(d)	23	(c)	24	(d)
25	(b)	26	(c)				

## ☛ PRACTICE EXERCISE 2: FAMILY TREE

Q. No.	Answer						
1	(a)	2	(c)	3	(a)	4	(b)
5	(a)	6	(b)	7	(d)	8	(d)
9	(a)	10	(a)	11	(d)	12	(d)
13	(a)	14	(c)	15	(a)	16	(a)
17	(d)	18	(c)	19	(b)	20	(d)
21	(d)	22	(d)	23	(d)		

## ☛ PRACTICE EXERCISE 3: SYLLOGISM

Q. No.	Answer						
1	(d)	2	(c)	3	(a)	4	(d)
5	(a)	6	(b)	7	(c)	8	(a)
9	(d)	10	(d)	11	(b)	12	(b)
13	(c)	14	(a)	15	(d)	16	(d)
17	(a)	18	(b)	19	(d)	20	(d)
21	(b)	22	(d)	23	(b)	24	(d)
25	(d)	26	(d)	27	(a)	28	(d)
29	(b)	30	(c)	31	(a)		

## ☛ PRACTICE EXERCISE 4: BOOLEAN LOGIC

Q. No.	Answer						
1	(d)	2	(c)	3	(b)	4	(c)
5	(c)	6	(b)	7	(d)	8	(d)
9	(c)	10	(a)	11	(a)	12	(b)
13	(b)	14	(b)	15	(a)	16	(c)
17	(d)	18	(a)	19	(a)	20	(b)

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# MODULE



# PRACTISING LOGICAL REASONING



- Foundation Exercises
- Moderate Exercises
- Advanced Exercises
- Mastering Logical Reasoning

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# 1

## Foundation Exercises

### ➤ PRACTICE EXERCISE 1

**Directions for questions 1 to 3:** Read the following passage and solve the questions based on it.

Ten coins are distributed among four people P, Q, R and S such that one of them gets one coin, another gets two coins, the third gets three coins and the fourth gets four coins. It is known that Q gets more coins than P, and S gets fewer coins than R.

Q 1. If the number of coins distributed to Q is twice the number distributed to P, then which one of the following is necessarily true?

- (a) R gets an even number of coins
- (b) R gets an odd number of coins
- (c) S gets an even number of coins
- (d) S gets an odd number of coins

Q 2. If R gets at least two more coins than S, then which one of the following is necessarily true?

- (a) Q gets at least two more coins
- (b) Q gets more coins than S
- (c) P gets more coins than S
- (d) P and Q together get at least five coins

Q 3. If Q gets fewer coins than R, then which one of the following is not necessarily true?

- (a) P and Q together get at least four coins
- (b) Q and S together get at least four coins
- (c) R and S together get at least five coins
- (d) P and R together get at least five coins

**Directions for questions 4 to 7:** Read the following passage and solve the questions based on it.

To make the non-technical background new joiners understand the process of manufacturing colour TVs better, LG has hired the services of Due North Inc. consultants. Due North is a consultancy firm which provides technical training of all the household equipment to the non-tech background

new joiners at LG. To facilitate the training process, it has been decided that there will be six groups of new joiners namely A, B, C, D, E and F and each of the groups is scheduled at least once a week. All the groups will start their training on the same day and will also end their training on the same day.

Following points are to be taken into consideration while making the training schedule:

- (i) Sunday is a holiday.
- (ii) B group is scheduled all days except Friday and Saturday.
- (iii) C group meets four days in succession.
- (iv) F group meets only from Monday to Thursday.
- (v) E group is scheduled everyday, but not on Thursday and Saturday.
- (vi) A group is scheduled on alternate days.
- (vii) C group does not meet on Monday and Tuesday only.
- (viii) A and D groups never meet on the same days.
- (ix) D group is scheduled only once a week on either Wednesday or Friday.

Q 4. Which groups are scheduled for the same number of classes during the week?

- (a) B, A, F only
- (b) E, B, C only
- (c) E, F, A only
- (d) None of these

Q 5. If a certain class of D is scheduled on the same day as that of the B group, then how many groups are scheduled on Friday?

- (a) 2
- (b) 3
- (c) 4
- (d) 5

Q 6. For how many groups do, we have a definite training schedule, for the whole week?

- (a) 4
- (b) 2
- (c) 3
- (d) 5

- Q 7. Which two groups can never be scheduled on the same day?  
 (a) C and D      (b) C and E  
 (c) A and D      (d) None of these

**Directions for questions 8 to 11:** Read the following passage below and solve the questions based on it.

There are five identical looking boxes containing different objects in each of them and every box has a label indicating its contents. The following is the correct description of the contents and the label of each box:

Contents	Label
Two Pins	PP
Two Balls	BB
Two Clips	CC
One Pin and one Clip	PC
One Ball and one Clip	BC

Somebody has mischievously interchanged these labels in such a way that no box carries the label describing its contents correctly.

- Q 8. The first box which was opened contained the label PP and the second box opened contained the label PC. It is also known that out of the four items in the two boxes, one item was definitely a ball. Then which of the following has to be true?  
 (a) Other three items will not contain two balls  
 (b) Other three items will not contain any clip  
 (c) Other three items will contain at least one clip  
 (d) None of these
- Q 9. Box PP contained two clips, box CC contained two pins and the box BB contained one ball. Then which of the following will definitely be false?  
 (a) The box BC contains one pin and one clip  
 (b) The box BB contains one ball and one clip  
 (c) The box BC contains two balls  
 (d) The box PC contains two balls
- Q 10. If the first box containing the label BC was opened and it was found that one item is a ball, then which of the following is definitely true?  
 (a) The other item may be either a ball or a clip  
 (b) The other box with the BB label contains one ball and one clip  
 (c) The other item will not be a ball  
 (d) The other item will also be a ball
- Q 11. If the information is available that the box PC does not contain either any pin or any clip, box PP does not contain any pin and box CC contains one clip and one ball. Which of the following will definitely be true if only one of the remaining boxes is opened?

- (a) The box will have one pin and one clip  
 (b) The box will have at least one clip  
 (c) The box will have at least one pin  
 (d) None of these

**Directions for questions 12 to 16:** Read the following passage and solve the questions based on it.

There are various rides available at the annual *Lucknow Mahotsav*. One of the rides that is available is the roller coaster ride, comprising five cars, numbered 1 through 5 from the front to back. Each car can accommodate up to two riders, seated side by side. Six persons—T, G, L, M, P and J, are taking the ride simultaneously. The Following information is available regarding their seating pattern:

- (i) L is sharing a car.
  - (ii) M is not sharing a car and is seated immediately behind an empty car.
  - (iii) T is not sharing a car with either G or P.
  - (iv) G is in either the third or the fourth car.
- Q 12. Which of the following people definitely occupy the second car?  
 (a) L only      (b) T and G  
 (c) L and M      (d) None of these
- Q 13. If G is immediately behind L's car and immediately ahead of T's car, all of the following must be true except  
 (a) G is in the fourth car.  
 (b) P is in the third car.  
 (c) T is in the fifth car.  
 (d) L is in the third car.
- Q 14. Which one of the following statements cannot be true?  
 (a) Neither T nor G is sharing a car with anybody else.  
 (b) Neither M nor J is sharing a car with anybody else.  
 (c) T is sharing a car and J is sharing a car.  
 (d) G is sharing a car and P is sharing a car.

- Q 15. If P is in the second car, how many different combinations of riders are possible for the third car?  
 (a) 1      (b) 2  
 (c) 4      (d) None of these

- Q 16. Assume that a 7th person is in with J in the first car and all the other conditions remain the same. Which of the following is a complete list of persons who might be in the fifth car?  
 (a) M      (b) G, P  
 (c) T, L, P      (d) T, L, M

**Directions for questions 17 to 20:** Read the following passage and solve the questions based on it.

'Vaastu-shastra' says that the dining table should not be rectangular, rather it should be hexagonal, as it helps in reducing the conflict. Accordingly Mr Verma bought a hexagonal dining table for his six office employees A, B, C, D, E and F.

One day while taking lunch they were sitting along the sides of the hexagonal table. The following information is given regarding their seating positions:

- (i) F, who is sitting exactly opposite A, is to the immediate right of B.
- (ii) D is between A and B and is exactly opposite C.

Q 17. A is sitting between which of the following pairs of persons?

- |             |             |
|-------------|-------------|
| (a) D and E | (b) B and E |
| (c) B and C | (d) E and C |

Q 18. Four of the following pairs are alike on the basis of sitting positions and so form a group. Which is the one that does not belong to the group?

- |          |          |
|----------|----------|
| (a) A, D | (b) B, C |
| (c) B, F | (d) C, E |

Q 19. Who is sitting opposite B?

- |                          |
|--------------------------|
| (a) C                    |
| (b) A                    |
| (c) E                    |
| (d) Cannot be determined |

Q 20. Who is sitting to the left of F?

- |                   |
|-------------------|
| (a) B             |
| (b) C             |
| (c) A             |
| (d) None of these |

**Directions for questions 21 to 23:** Read the following passage and solve the questions based on it.

There are nine judges—G, H, I, K, L, M, N and O, who have to appear on a series of three benches. Each bench will consist of three judges and each judge will appear in exactly one bench. The benches must be arranged according to the following conditions:

- (i) I and N must be on the same bench.
- (ii) K and L must be on the same bench.
- (iii) O and J cannot be on the same bench.
- (iv) M must appear on the second bench.
- (v) Either J or M or both must appear on the bench with H.

Q 21. Which of the following judges could appear on a bench together?

- |           |           |
|-----------|-----------|
| (a) G L O | (b) G J M |
| (c) K I M | (d) N I J |

Q 22. Which of the following cannot be true?

- |  |
|--|
| (a) I appears on the second bench                            |
| (b) H appears on the third bench                             |
| (c) O appears on the third bench                             |
| (d) J appears on the first bench, and H appears on the third |

Q 23. The third bench could consist of all of the following except

- |             |             |
|-------------|-------------|
| (a) K, L, O | (b) K, I, J |
| (c) G, H, J | (d) G, I, N |

## ➤ PRACTICE EXERCISE 2

**Directions for questions 1 to 4:** Read the following passage and solve the questions based on it.

Under a special arrangement at FBI, telephone numbers of the employees are to be coded in the following way:

Digit	7	3	5	0	2	1	6	4	9	8
Code	N	H	L	T	F	D	R	Q	G	P

Following conditions are to be maintained:

- (i) If the first digit is even and the last digit is odd, then they are to be coded as \$ and @ respectively.
- (ii) If the first digit is odd and the last digit is even, then they are to be coded as # and γ respectively.
- (iii) If 0 is preceded as well as followed by an odd digit, then 0 is to be coded as \*.
- (iv) If 0 is preceded as well as followed by an even digit, then 0 is to be coded as ↑.
- (v) Zero (0) is considered neither even nor odd.

Q 1. What is the code for 1375490?

- |             |
|-------------|
| (a) DHNLQGT |
| (b) #HNLQGE |
| (c) DHNLQG* |
| (d) γHNLQG# |

Q 2. Which of the following numbers will be coded as \$ Q R L \* H @?

- |             |                          |
|-------------|--------------------------|
| (a) 8456037 | (b) 8465032              |
| (c) 6475031 | (d) Cannot be determined |

Q 3. Which of the following numbers will be coded like—Q L P ↑ R N T?

- |             |                   |
|-------------|-------------------|
| (a) 4570680 | (b) 4780650       |
| (c) 6580470 | (d) None of these |

Q 4. What will be the code for 36250084?

- |              |                   |
|--------------|-------------------|
| (a) #RFL**Gγ | (b) #RFLG**γ      |
| (c) #RF**LG* | (d) None of these |

**Directions for questions 5 to 7:** Read the following passage and solve the questions based on it.

“Lets be God” is an organization imparting training to people to touch the different dimensions of life and be like God. It was planning to organize series of eight lectures A, B, C, D, E, F, G and H (not necessarily in the same order) for three subjects ‘Purpose of God’, ‘Alignment of Purpose’ and ‘Touching Lives’ on three successive days.

For the sake of convenience, these three subjects are coded as X, Y and Z respectively. Subject X was to be covered first in three lecturers followed by Z and then subject Y in two lectures.

- (i) Lectures A, C and D have to be on separate days.
- (ii) Lectures B and F have to be kept on separate days.  
Lecture B cannot be clubbed with A or G or D.
- (iii) Lectures G and H should happen on one day.

- Q 5. Which of the following pairs of lectures can go along with lecture A on subject X?
- B, C
  - G, H
  - D, E
  - Data inadequate

- Q 6. Which combination of lecturers was arranged on the second day of the series?
- C, G, H
  - B, D, E
  - C, A, G
  - Data inadequate

- Q 7. Which of the following lectures were for subject Y?
- D, F
  - G, H
  - B, C
  - Data inadequate

**Directions for questions 8 to 12:** Read the following passage and solve the questions based on it.

Pankaj, Qureshi, Rajesh and Sudhir live together in a house.

- Pankaj lives with his (or her) parents.
- Qureshi lives with at least three persons younger than him (or her).
- Sudhir lives with his mother, and is older than at least two persons living with him.
- Rajesh lives with his (or her) son and is not older than Sudhir.

- Q 8. The total number of persons in that house is \_\_\_\_.

- 3
- 4
- 5
- 6

- Q 9. Qureshi is Pankaj's \_\_\_\_.

- father
- mother
- son
- grandmother

- Q 10. Sudhir is Pankaj's \_\_\_\_.

- brother
- father
- mother
- sister

- Q 11. Rajesh is Qureshi's \_\_\_\_.

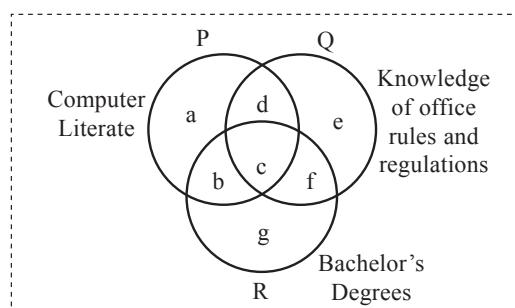
- daughter
- son
- grandson
- daughter-in-law

- Q 12. Rajesh is Sudhir's \_\_\_\_.

- wife
- husband
- son
- daughter

**Directions for questions 14 to 17:** Read the following passage and solve the questions based on it.

The figure given below consists of three intersecting circles which represent the applicants for the post of PA who are computer literate; who have knowledge of office rules and regulations; and who have a bachelor's degree.



- Q 13. Find the letter that represents all the applicants who are computer literate and have knowledge of office, rules and regulations but do not have a bachelor's degree.

- b
- c
- d
- f

- Q 14. Find the letter that represents all the applicants who are computer literate but do not have a bachelor's degree or any knowledge of office, rules and regulations.

- a
- b
- c
- d

- Q 15. Find the letter that represents the applicants who are computer literate and have a bachelor's degree but do not have knowledge of office, rules and regulations.

- g
- e
- c
- b

- Q 16. Find the letter that represents the applicants who are computer literate, know office, rules and regulations and have bachelor's degree.

- b
- c
- f
- g

- Q 17. Find the letter that represents the maximum number of applicants?

- b
- c
- f
- Cannot be determined

**Directions for questions 18 to 22:** Read the following passage and solve the questions based on it.

Mr Manoj is a medical representative and he is supposed to visit six doctors—M, N, P, Q, R and S, exactly once every week. To visit the doctors, Mr Manoj has set up a schedule to visit each of the six doctors during the course of one week according to the following conditions:

- He must visit Dr M before Dr N and Dr R.
- He must visit Dr N before Dr Q.
- The third doctor he visits must be Dr P.

- Q 18. Which of the following must be true of Mr Manoj's schedule?

- He visits Dr M before Dr Q
- He visits Dr N before Dr R
- He visits Dr P before Dr M
- He visits Dr P before Dr S

- Q 19. If he visits Dr S first, which doctor must he visit second?  
 (a) Dr M                   (b) Dr N  
 (c) Dr P                   (d) Dr Q
- Q 20. Mr Manoj could visit any of the following doctors immediately after Dr P except  
 (a) Dr S                   (b) Dr R  
 (c) Dr Q                   (d) Dr M
- Q 21. If he visits Dr Q immediately before Dr R and immediately after Dr S he must visit Dr Q  
 (a) First                  (b) Second  
 (c) Fourth                (d) Fifth
- Q 22. Which of the following could be the order in which he visits the six doctors?  
 (a) Dr M, Dr S, Dr P, Dr N, Dr R, Dr Q  
 (b) Dr Q, Dr N, Dr P, Dr R, Dr S, Dr M  
 (c) Dr M, Dr R, Dr N, Dr Q, Dr P, Dr S  
 (d) Dr P, Dr S, Dr M, Dr R, Dr Q, Dr N

**Directions for questions 23 and 24:** Read the following passage and solve the questions based on it.

In the famous movie—*Hum Saat Aath Hain* there were six persons A, B, C, D, E and F in the family. C is the sister of F. B is the brother of E's husband. D is the father of A and grandfather of F. There are 2 fathers, 3 brothers and a mother in the family and only these six people were the members of the family.

- Q 23. What is the name of husband of E?  
 (a) B                      (b) C  
 (c) D                      (d) None of these
- Q 24. Who is the mother?  
 (a) A                      (b) B  
 (c) E                      (d) D

### ➤ PRACTICE EXERCISE 3

**Directions for questions 1 to 4:** Read the following passage and solve the questions based on it.

Five friends—Umesh, Vishnu, Xinhua, Yogesh and Zeta collected pebbles on the sea shore. They collected a total of 100 pebbles.

None of them collected less than 10 pebbles each. No two among them collected the same number of pebbles. Following information is given regarding the number of pebbles with each one of them:

- (i) Umesh collected the same number of pebbles as Vishnu and Xinhua put together.
- (ii) Xinhua collected 3 more pebbles than the cube of an integer.
- (iii) The number of pebbles collected by Umesh was the square of an integer.
- (iv) The number of pebbles collected by Vishnu was either the square or the cube of an integer.
- (v) The number of pebbles collected by Yogesh and Zeta are in the ratio 4 : 3.

- Q 1. What was the number of pebbles collected by Umesh?  
 (a) 19                   (b) 36  
 (c) 52                   (d) 64
- Q 2. What was the number of pebbles collected by Vishnu?  
 (a) 16                   (b) 25  
 (c) 46                   (d) 64
- Q 3. What was the difference in the number of pebbles collected by Xinhua and Yogesh?  
 (a) 5                   (b) 7  
 (c) 9                   (d) 11
- Q 4. How many of the individual collection(s) of pebbles was/were prime numbers?  
 (a) 0                   (b) 1  
 (c) 2                   (d) 3

**Directions for questions 5 to 9:** Read the following passage and solve the questions based on it.

Each of the alphabets given below represents a digit (from 1–9). No digit is represented by more than one alphabet and vice versa.

$$\begin{array}{r}
 & \text{A} & \text{B} & \text{C} & \text{D} \\
 + & \text{C} & \text{A} & \text{B} & \text{E} & \text{B} \\
 \hline
 & \text{B} & \text{F} & \text{D} & \text{F} & \text{C}
 \end{array}$$

- Q 5. Find the value of  $B + C + D$ ?  
 (a) 12                   (b) 14  
 (c) 16                   (d) 19
- Q 6. What is the value of  $A \times B \times C$ ?  
 (a) 72                   (b) 108  
 (c) 24                   (d) 36
- Q 7. What is the value of  $(BF) \times (FC)$ ?  
 (a) 966                (b) 865  
 (c) 826                (d) 735
- Q 8. How many digits from A to F is/are prime numbers?  
 (a) 1                   (b) 2  
 (c) 3                   (d) 4
- Q 9. What is the sum of the three largest digits out of the given digits from A to F?  
 (a) 24                   (b) 23  
 (c) 21                   (d) 22

**Directions for questions 10 to 13:** Read the following passage and solve the questions based on it.

- (i) A group of five boys A, B, C, D and E and a group of five girls P, Q, R, S and T are standing in a row facing each other (not necessarily in the same order). The group of girls is facing north.
- (ii) E is not at any of the ends. C is to the immediate right of B and D is to the immediate left of A, who is facing P. There are as many girls between P and Q as between R and S. A is second to the left of B, S and R are not facing either B or D.

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- Q 10. Which of the following indicates the pair of students standing at the ends of the row?
- CB
  - DB
  - CD
  - Cannot be determined
- Q 11. Which of the following is definitely true on the basis of the given information?
- C is second to the right of D
  - P is third to the right of Q
  - S is to the immediate right of P
  - None of these
- Q 12. Who is standing to the immediate right of A?
- E
  - C
  - B
  - Cannot be determined
- Q 13. Who is facing A?
- R
  - S
  - P
  - None of these

**Directions for questions 14 to 17:** Read the following passage and solve the questions based on it.

There are six students—A, B, C, D, E and F, participating in an evaluation test for Language and Science.

- A's total marks in language were just above C and in Science just above F.
- B was just above C in Science but scored less than D in Language.
- F got more marks than D and E in Science, but did not perform as well as D in Language.
- No one scored in between C and D in Language and C and A in Science.

Q 14. Who got the highest marks in Science?

- A
- B
- C
- Cannot be determined

Q 15. Which of the following students has scored the least in Science?

- Only D
- Only E
- Either D or E
- A

Q 16. Who scored just below D in Language?

- B
- F
- C
- Cannot be determined

Q 17. Which of the given statements is not necessary to answer the questions?

- ii
- iii
- iv
- All are necessary

**Directions for questions 18 to 22:** Read the following passage and solve the questions based on it.

In the annual performance appraisal, all employees were placed in three categories—average, good and excellent. To execute the appraisal plan more effectively, a software called 'Appraise Well' is being used. But somehow the computer got infected with a virus and some information was lost.

While trying to recover the data, only the following could be recovered:

	Average	Good	Excellent	Total
Male			12	
Female				36
Total		33		

- An employee can be placed in only one category.
- Half the employees are either excellent or good.
- 40% of the employees were females.
- One-third of the males were average.

Q 18. How many students are both females and excellent?

- 2
- 4
- 8
- 0

Q 19. What proportion of the good employees are males?

- 0.4
- 0.5
- 0.6
- None of these

Q 20. What proportion of the good employees are females?

- 0.4
- 0.5
- 0.6
- 0.27

Q 21. What proportion of the females are good employees?

- 0.4
- 0.5
- 0.6
- None of these

Q 22. How many employees are neither excellent nor males?

- 36
- 12
- 24
- 0

**Directions for questions 23 to 25:** Read the following passage and solve the questions based on it.

A quiz has three rounds of two questions each. However, the scoring scheme is different in all the three rounds as per the following:

In the first round, each correct answer carries 20 points and each incorrect answer carries a penalty of 10 points. If both the questions in the 1st round are answered correctly a bonus of 10 points is awarded.

In the second round, each correct and incorrect answer gets the same points as in the first round. However an additional penalty of 10 points is awarded if both the questions are answered incorrectly.

In the third round, each right answer fetches 40 points and an incorrect one fetches a penalty of 20 points.

Q 23. In how many ways can a score of 40 be achieved?

- 0
- 1
- 2
- 3

Q 24. If only two answers are incorrect in the whole quiz, what is the minimum possible score that a contestant can achieve?

- 20
- 30
- 40
- None of these

**Q 25.** If only two answers are incorrect in the whole quiz, what is the maximum possible score that a contestant can achieve?



## ➤ PRACTICE EXERCISE 4

**Directions for questions 1 to 3:** Read the following passage and solve the questions based on it.

A, B, C, D and E are five cities out of which two are hill stations and the rest are in the plains. Two cities, which are in the plains, are ports. Four cities out of five are state capitals and two are industrial cities. The Population of two cities is less than 5 lakhs. The population of one city is 20 lakhs and the more than 50 lakhs of. Two cities are situated on the same latitudes and other two are on same longitude and the other two are on the same longitude. Latitudes and longitudes of both ports are different and out of these one is an industrial town. The population of both the industrial cities is more than 50 lakhs. The longitude of one hill station and one of the industrial cities is the same. The latitudes and longitudes of the other hill station and the other port are different. One industrial town is neither a hill station nor a port. None of the hill stations is an industrial town. The hill station has the which same longitude as the port, is a capital. B is a hill station while the longitudes of A and E are the same. E is a port. The latitudes of D and C are the same and the population of D is 20 lakhs. Both the ports are capitals and one of them is an industrial town.

Q 1. Which of the following two cities have a population less than 5 lakhs?

- (a) B and C      (b) A and B  
(c) A and D      (d) D and B

Q 2. Which of the following cities is not a capital?



**Q 3.** Which one of the following cities is a hill station as well as a capital?



**Directions for questions 4 to 5:** Read the following passage and solve the questions based on it.

To smoothen the procedure of grievances reprisal, a team of five members is being constituted by the top management. As per the procedures established, it has to provide representation to both the workers and the middle management. The team must have two representatives of the middle management, two representatives of the workers and one representative of the top management.

As per the availability of persons, we know that

- (i) the middle management's representatives must be chosen from X, Y and Z.

- (ii) the workers' representatives must be chosen from A, B and C.
  - (iii) the top management's representative must be chosen from either J or K.  
Owing to some geographical constraints, we know that
  - (iv) A cannot serve with C.
  - (v) Z cannot serve together with C.
  - (vi) Y cannot serve unless K is also in the team.

Q 4. Which of the following persons must be chosen?



Q 5. If A and B are chosen to be the workers representatives, then which of the following statement(s) is/are true?

- I. K is chosen
  - II. Both X and Y are chosen to represent teachers
  - III. J is chosen
    - (a) I only
    - (b) II only
    - (c) III only
    - (d) Both I and II

**Directions for questions 6 to 9:** Read the following passage and solve the questions based on it.

There are five islands A, B, C, D and E in Nicobar. Two of these have post offices, three have schools and three are accessible by bridge. Two have a population of more than 5000 each, two have a population between 2000 and 5000 each, and one has a population of less than 2000. Two of these islands have electricity in addition to certain other facilities such as a school and accessibility by bridge. The island with a population of less than 2000 has a school but does not have a post office nor is it accessible by bridge; while each of the islands with a population of more than 5000 has a school. Of the two islands having a population between 2000 and 5000, only one has a post office and is accessible by bridge. Island A is accessible by bridge. Island B has a population of more than 5000, island D has a school and is accessible by bridge but does not have a post office, while island E has a school but is not accessible by bridge.

Q 6. Which island has a school and a post office?



**Q 7.** Which island does not have any of the facilities available to other islands?



Q 8. Which two islands have electricity?



Q 9. Which three islands can be accessed by bridge?

- (a) A, B, D      (b) A, B, E  
 (c) A, D, E      (d) B, D, E

**Directions for questions 10 to 13:** Read the following passage and solve the questions based on it.

P, Q, R, S, T and U are six lecturers in a college each teaching a different subject Mathematics, Physics, Sociology,



E and G and F. There is a one-way connection from F to B. (Two way connection means people can move in both the Directions whereas in a one way connection, people can move only in one way.)

- Q 1. If the connection between E and C is cut, then which route is not possible?
- B to E
  - E to C
  - F to B
  - D to G
- Q 2. If a person wishes to travel from D to E, then what is the minimum number of cities that he needs to cross enroute?
- 2
  - 4
  - 3
  - 5
- Q 3. If a person wants to go to city F from city A, how many cities will he be required to cross (excluding A and F)?
- 2
  - 4
  - 3
  - 5
- Q 4. In the above question, which of the following will minimize the number of cities?
- Make F – B a two way connection
  - Connect F – C with a two way connection
  - Connect A – D with a one way connection from D to A
  - Connect C – G with a two-way connection

**Directions for questions 5 to 7:** Read the following passage and solve the questions based on it.

There are two groups namely Left and Right. Persons A, B, C and D are in the Left group and E, F and G are in the Right group. A committee is to be formed of 3 persons, at least one from each group. B and C will never be together. If G is there in the committee then E will also be there. F and C will be always together. The co-ordinator has to be from the minority group.

- Q 5. Which one of them cannot be a valid committee?
- BDE
  - FGB
  - AGC
  - EFG
- Q 6. Which one of them cannot be a coordinator?
- F
  - B
  - G
  - D
- Q 7. Which one is a false statement?
- FBA is a possible group
  - FCD is a possible group
  - FCE is a possible group
  - GEA is a possible group

**Directions for questions 8 to 12:** Read the following passage and solve the questions based on it.

P, Q, R, S, T, V and W are seven friends who left for seven different places—Delhi, Chennai, Hyderabad, Bangalore, Kolkata, Chandigarh and Patna—each one on a different day of the week. R left for Patna on Monday. On the last day of the week one person left for Bangalore. T left the next

day after P, who left for Chandigarh and a day previous to W's departure. S left for Kolkata on Friday. Q did not leave for either Hyderabad or Bangalore and W left for Delhi.

It is also given that the week starts on Sunday and ends on Saturday.

- Q 8. On which day of the week did Q leave?
- Sunday
  - Saturday
  - Wednesday
  - Cannot be determined
- Q 9. Who left for Bangalore?
- T
  - P
  - V
  - Cannot be determined
- Q 10. On which day of the week did T leave?
- Tuesday
  - Thursday
  - Sunday
  - Wednesday
- Q 11. Which of the following combinations of person-place is not correct?
- R—Patna
  - P—Chandigarh
  - T—Hyderabad
  - All are correct
- Q 12. Who left on Tuesday?
- P
  - W
  - Q
  - V

**Directions for questions 13 to 16:** Read the following passage and solve the questions based on it.

Manoj is a medical representative (MR) with Nicholas Piramal. He has to meet seven doctors M, N, O, P, Q, R and S on a particular day between 9 am and 4 pm. Following details are available regarding his schedule:

- He takes 30 minutes with each doctor and keeps a gap of 25 minutes between two appointments for travel and preparation except after the 5th visit, when he takes a 50 minutes break for lunch, travel and preparation.
  - He has to meet doctor M immediately before Q but immediately after R, who is the third doctor to be met.
  - Dr S does not give any time for a meeting before 9:30 am and after 10:30 am Dr P and Dr N meet Manoj between 2 pm and 3:30 pm only.
- Q 13. Who among the following is likely to be the first doctor that day?
- S
  - O
  - R
  - Q
- Q 14. Who will be the last doctor to be visited by him that day?
- N
  - P
  - R
  - Cannot be determined
- Q 15. At what time is he likely to meet Dr S?
- 9:55 am
  - 9:30 am
  - 9 am
  - None of these
- Q 16. If Dr R asks him to visit again 25 minutes after his scheduled seventh visit is over, then at what time is Dr R asking him to meet?

- (a) 3:55 pm      (b) 3:40 pm  
 (c) 3:25 pm      (d) None of these

**Directions for questions 17 to 25:** Read the following passage and solve the questions based on it.

B, C, D, F, G, H and J are seven students studying in three colleges P, Q and R. Among them are three boys and four girls. There is at least one boy and one girl in each college. Three of them are in the Commerce discipline and two each in Arts and Science. B and her sister G are in the Science discipline but in different colleges. F studies Arts in college Q and he does not study with either J or C. D is not in the Commerce discipline and he studies in college R, only with B. All the three from the Commerce discipline do not study in the same college. H studies in the same college with her friend G.

- Q 17. In which college do only the Commerce students (from the given seven) study?  
 (a) P      (b) Q  
 (c) R      (d) P or Q
- Q 18. If B and C can interchange their colleges satisfying all other conditions, which of the following will definitely represent the girls?  
 (a) BCHD      (b) BCHG  
 (c) BFHG      (d) DCHF
- Q 19. Which of the following represents the three students in the Commerce discipline?  
 (a) HJC  
 (b) HDC  
 (c) HFG  
 (d) Cannot be determined
- Q 20. In which college do three of the students study?  
 (a) P      (b) R  
 (c) Q      (d) None of these
- Q 21. Which of the following represents the three boys?  
 (a) DFJ  
 (b) DFC  
 (c) JFC  
 (d) Cannot be determined
- Q 22. Pointing towards a man in the photograph, a woman said, "He is the father of the brother of my father". How is the man related to the woman?  
 (a) Father      (b) Uncle  
 (c) Grandfather      (d) Uncle or father
- Q 23. To number the pages of a large book, the printer used a total of 1890 digits. How many pages are there in the book?  
 (a) 655      (b) 667  
 (c) 666      (d) 668
- Q 24. Five men A, B, C, D and E read a novel. The one who reads it first gives it to C. The one who reads it last had taken it from A. E was not the first or the last to read the novel. Also, it is known that there were two readers between B and A. Who read the novel last?  
 (a) E      (b) B  
 (c) D      (d) C

- Q 25. In the above question, who read the novel in the middle?  
 (a) E      (b) B  
 (c) D      (d) C

## ➤ PRACTICE EXERCISE 6

**Directions for questions 1 to 4:** Read the passage given below and solve the questions based on it.

Five persons—Yamini, Nitika, Monica, Rehana and Pragya are students of five different areas Medical, Engineering, Architecture, Arts and Management in no particular order. Each of them plays a different musical instrument from Sitar, Tabla, Sarod, Guitar and Violin, not given respectively.

Monica, a medical student, does not play Sarod or Sitar or Guitar.

Pragya is neither a student of Engineering nor of Management.

Rehana, who plays tabla, is an Arts student.

Neither Pragya nor Yamini plays Sarod.

- Q 1. Who among the following plays Sarod?

- (a) Yamini  
 (b) Nitika  
 (c) Pragya  
 (d) Data inadequate

- Q 2. The guitarist is a student of which of the following disciplines?

- (a) Engineering  
 (b) Either Engineering or Management  
 (c) Architecture  
 (d) Data inadequate

- Q 3. Who among the following plays Sitar?

- (a) Yamini  
 (b) Nitika  
 (c) Pragya  
 (d) Data inadequate

- Q 4. For how many of the given five students is it possible to find the exact discipline and the musical instrument the person plays?

- (a) 0      (b) 1  
 (c) 2      (d) 3

**Directions for questions 5 to 10:** Read the passage given below and solve the questions based on it.

During their stint at IIM Shillong, ten students have opted for various electives named from A to F. In these electives, students are given the points on a scale of 1 to 5 points. Points obtained by the students can be integral points only.

It is also known that not all the electives are taken by all the students and not all the students are taking at least an elective.

The range of scores indicates the maximum and minimum scores in that elective by the students who have chosen that elective. However, if the range of the scores is 1 – 4, then at least one of the students must have got 1 point

and at least one student must have got 4 points in that elective.

The number of elective takers out of the 10 students is given in the last column.

<i>Elective</i>	<i>Range of scores of all the elective takers (Minimum and maximum scored)</i>	<i>Average score of the elective takers</i>	<i>Number of elective takers</i>
A	1 – 4	3.5	6
B	2 – 4	3	3
C	1 – 5	4	7
D	1 – 2	4/3	3
E	2 – 5	4	4
F	3 – 5	11/3	6

Q 5. How many students have scored more than 4 points in at least 2 electives?

- (a) 4                      (b) 7  
 (c) 2                      (d) Cannot be determined

Q 6. What is the minimum number of students who must have scored less than 2 points in at least one elective?

- (a) 3                      (b) 4  
 (c) 2                      (d) 3

Q 7. What is the maximum number of students who have scored more than 3 points in at least one elective?

- (a) 5                      (b) 6  
 (c) 7                      (d) Cannot be determined

Q 8. What is the minimum number of students who have scored more than 3 points in at least one elective?

- (a) 5                      (b) 6  
 (c) 7                      (d) None of these

Q 9. Elective A and elective B are merged to form a new elective H. This new elective H will be having all those students who have opted elective A and elective B and the scores of each of these electives have been taken into consideration while finding the average of elective H. If none of the students of elective A and elective B are common, then what will be the average score of elective H?

- (a) 10/3                      (b) 3  
 (c) 3.5                      (d) None of these

Q 10. Elective C and elective E are merged to form a new elective N. This new elective N will be having all those students who have opted elective C and elective E and the scores of each of these electives have been taken into consideration while finding the average of elective N. What is the average score of elective N?

- (a) 4                      (b) 3  
 (c) 3.5                      (d) Cannot be determined

**Directions for questions 11 to 13:** Read the passage given below and solve the questions based on it.

There are six movies—A, B, C, D, E and F—to be showed in a film festival. B, C and E are art movies and others are commercial movies. Only F and D are Hindi movies and the remaining movies are English movies. Movies A, C and D are made by Jagmohan Mundhra and movies B, E and F are made by Steven Spielberg.

Q 11. Which English movie is a commercial movie?

- (a) A                      (b) B  
 (c) C                      (d) D

Q 12. Which Hindi movie is made by Jagmohan Mundhra?

- (a) A                      (b) B  
 (c) C                      (d) D

Q 13. Which of the English movies is/are art movies made by Steven Spielberg?

- (a) B                      (b) B and C  
 (c) C                      (d) B and E

**Directions for questions 14 to 18:** Read the passage given below and solve the questions based on it.

Bus route number 761 has exactly six stops on its route. Any bus plying on this route starts from the initial position, then stops first at stop one and then at stops two, three, four, five, and six respectively. After the bus reaches stop six, the bus turns and returns to its initial position and repeats the cycle. Buses are not allowed to carry people on its return journey.

Following are the six stops—L, M, N, O, P, and Q in no particular order. Further, following observations have been made regarding the stops on this route:

Observation 1 – P is the third stop.

Observation 2 – M is the sixth stop.

Observation 3 – The stop Q is the stop immediately after O.

Observation 4 – N is the stop immediately before L.

Q 14. If N is the fourth stop on this route, which among the following must be the stop immediately before stop P?

- (a) N                      (b) Q  
 (c) O                      (d) M

Q 15. If L is the second stop on this route, which among the following must be the stop immediately before M?

- (a) N                      (b) Q  
 (c) O                      (d) P

Q 16. A passenger boards a bus on this route at O, rides past one of the stops, and alights at P. Which of the following must be true?

- (a) O is stop one  
 (b) P is stop four  
 (c) N is stop five  
 (d) L is stop six

Q 17. In how many different ways the stops can be fixed on this route?

- (a) 1                      (b) 2  
 (c) 3                      (d) 4

- Q 18. If we relax the observation 3, then in how many different ways the stops can be fixed on this route?
- (a) 1                              (b) 2  
 (c) 3                              (d) 4

**Directions for questions 19 to 20:** Read the passage given below and solve the questions based on it.

During the Indian film festival at Goa, movies from five countries—Austria, Bhutan, China, Denmark, and England are to be shown. Movies from these countries have to follow a particular order as given follows:

Movie from Austria must be shown before the movie from China.

Movie from England should be the fifth movie to be shown.

Movie from Bhutan must be shown before the movie from Denmark.

- Q 19. Which of the following is the correct order for showing all the movies?

- (a) Austria, China, Bhutan, Denmark, England  
 (b) Austria, China, Denmark, England, Bhutan  
 (c) Bhutan, Denmark, China, Austria, England  
 (d) Bhutan, Denmark, England, Austria, China

- Q 20. Movies from Denmark and England are shown at the farthest gap possible. Which among the following would be true?

- (a) Movie from Austria is shown earlier than Movie from Bhutan.  
 (b) Movie from England is shown earlier than Movie from China.  
 (c) Movie from Denmark is shown earlier than Movie from Austria.  
 (d) Movie from England is shown earlier than Movie from Bhutan.

## ➤ PRACTICE EXERCISE 7

**Directions for questions 1 to 3:** Read the passage given below and solve the questions based on it.

Six sides of a cube are painted by six different colours—Black, Blue, Brown, Green, Red and White—one colour on one side. Following observations are made regarding the sides and the colour on it:

1. The side coloured red is opposite the side coloured black.
2. The Green side is between the Red side and the Black side.
3. The Blue side is adjacent to the White side.
4. The Brown side is adjacent to the Blue side.
5. The Red side is the bottom face.

- Q 1. The four colours adjacent to the green side are

- (a) Black, Blue, Brown, Red  
 (b) Black, Blue, Brown, White

- (c) Black, Blue, Red, White  
 (d) Black, Ehite, Brown, Red

- Q 2. Which of the following can be deduced using the observation 1 and observation 5?

- (a) Black is on the top.  
 (b) Brown is on the top.  
 (c) Blue is on the top.  
 (d) Brown is opposite to black.

- Q 3. If the red side is exchanged for the green side and the blue is swapped for black, then which of the following is false?

- (a) Red side is opposite to black side.  
 (b) White side is adjacent to the brown side.  
 (c) Green side is opposite to the blue side.  
 (d) White side is adjacent to the blue side.

**Directions for questions 4 to 8:** Read the passage given below and solve the questions based on it.

In the latest *Rajshri* films *Hum aapke hain saath saath*, there are six generations in a family however total members in this family is 5. Names of the members of this family are Atul, Binod, Charu, Deepak and Faisal.

Following observations have been made regarding them:

1. Charu is the only unmarried child whose grand parents have passed away.
2. Deepak, a widow, is the daughter of Faisal who is a widower.
3. None of the family members is an adopted son or an adopted daughter.
4. One generation has at most one family member.
5. Every couple has only one child and the first generation did not have any siblings.

- Q 4. If Atul is the grandson of Binod, then which member is in the second last generation?

- (a) A male  
 (b) Atul  
 (c) Either (a) or (b)  
 (d) Both (a) and (b)

- Q 5. If Binod is the eldest member in the family, then how is Deepak related to Atul?

- (a) Grandmother  
 (b) Grandfather  
 (c) Either (a) or (b)  
 (d) None of these

- Q 6. If Binod is the eldest member in the family, then how is Atul related to Charu?

- (a) Father  
 (b) Mother  
 (c) Uncle  
 (d) Cannot be determined

- Q 7. If Atul is Charu's father and Binod's grandson, then how many possible combinations of the family exist?

- (a) 1                              (b) 2  
 (c) 3                              (d) 4



**4.94 ◊◊ Practising Logical Reasoning**

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Q 21. Which of the following is the position of the race-track maker?

- (a) 6
- (b) 11
- (c) Either 6 or 11
- (d) Neither 6 nor 11

Q 22. What is the product of the university A?

- (a) 360
- (b) 455
- (c) 450
- (d) 390

Q 23. What is the smallest point obtained by an individual of university L?

- (a) 1
- (b) 2
- (c) 3
- (d) 4

Q 24. What is the product of the ranks obtained by all the athletes of university K?

- (a) 120
- (b) 150
- (c) 128
- (d) 144

Q 25. Which of the following is not a rank obtained by the athletes of university C?

- (a) 15
- (b) 6
- (c) 4
- (d) 2

Q 26. Which of the following is a rank obtained by the athletes of university B?

- (a) 14
- (b) 6
- (c) 4
- (d) 3

# ANSWERS



## ► PRACTICE EXERCISE 1

Q. No.	Answer						
1	(d)	2	(b)	3	(a)	4	(b)
5	(a)	6	(d)	7	(c)	8	(d)
9	(c)	10	(d)	11	(c)	12	(d)
13	(b)	14	(a)	15	(d)	16	(d)
17	(a)	18	(b)	19	(c)	20	(a)
21	(d)	22	(d)	23	(b)		

## ► PRACTICE EXERCISE 2

Q. No.	Answer						
1	(a)	2	(d)	3	(d)	4	(d)
5	(b)	6	(d)	7	(d)	8	(b)
9	(b)	10	(d)	11	(d)	12	(a)
13	(c)	14	(a)	15	(d)	16	(b)
17	(d)	18	(a)	19	(a)	20	(d)
21	(d)	22	(a)	23	(d)	24	(c)

## ► PRACTICE EXERCISE 3

Q. No.	Answer						
1	(b)	2	(b)	3	(a)	4	(b)
5	(c)	6	(a)	7	(a)	8	(b)
9	(b)	10	(c)	11	(d)	12	(a)
13	(c)	14	(b)	15	(c)	16	(d)
17	(d)	18	(d)	19	(d)	20	(d)
21	(d)	22	(a)	23	(c)	24	(c)
25	(c)						

## ► PRACTICE EXERCISE 4

Q. No.	Answer						
1	(b)	2	(c)	3	(a)	4	(d)
5	(d)	6	(b)	7	(c)	8	(c)
9	(a)	10	(d)	11	(a)	12	(c)
13	(b)	14	(d)	15	(d)	16	(b)
17	(a)	18	(d)	19	(d)	20	(d)
21	(b)	22	(d)	23	(c)	24	(c)

### ☛ PRACTICE EXERCISE 5

Q. No.	Answer						
1	(a)	2	(a)	3	(b)	4	(a)
5	(a)	6	(a)	7	(a)	8	(a)
9	(c)	10	(d)	11	(d)	12	(a)
13	(b)	14	(d)	15	(a)	16	(d)
17	(a)	18	(b)	19	(d)	20	(c)
21	(d)	22	(c)	23	(c)	24	(c)
25	(a)						

### ☛ PRACTICE EXERCISE 6

Q. No.	Answer						
1	(b)	2	(d)	3	(d)	4	(c)
5	(d)	6	(c)	7	(d)	8	(d)
9	(a)	10	(d)	11	(a)	12	(d)
13	(d)	14	(b)	15	(b)	16	(a)
17	(b)	18	(d)	19	(a)	20	(c)

### ☛ PRACTICE EXERCISE 7

Q. No.	Answer						
1	(d)	2	(a)	3	(b)	4	(d)
5	(a)	6	(d)	7	(d)	8	(d)
9	(d)	10	(c)	11	(d)	12	(c)
13	(c)	14	(b)	15	(c)	16	(a)
17	(a)	18	(b)	19	(d)	20	(a)
21	(b)	22	(b)	23	(b)	24	(c)
25	(d)	26	(d)				

## HINTS AND EXPLANATIONS

### ☛ PRACTICE EXERCISE 1



#### Solution to Q1 to 3:

1. (d) It is given that  $Q > P$  and  $R > S$ .

$$\begin{array}{cc} Q & P \\ 4 & 2 \\ 4 & 1 \end{array} \qquad \begin{array}{cc} R & S \\ 3 & 1 \\ 4 & 3 \end{array}$$

The distribution of coins can be of two types; in both the cases, S gets an odd number.

2. (b) is the answer as it is one of the conditions mentioned in the question itself.

3. (a) 

R	S	Q	P
4	2	3	1
4	1	3	2
4	3	2	1

Looking at the possible distribution of coins, we find that option (a) is not always true.

**Solution to Q4 to 7:**

Using the statements given above, we have the following diagram for the training schedule:

<b>Group</b>	<b>Mon</b>	<b>Tue</b>	<b>Wed</b>	<b>Thu</b>	<b>Fri</b>	<b>Sat</b>
A	X	✓	X	✓	X	✓
B	✓	✓	✓	✓	X	X
C	X	X	✓	✓	✓	✓
D	X	X		X		X
E	✓	✓	✓	X	✓	X
F	✓	✓	✓	✓	X	X

Here, group D meets either on Wednesday or on Friday.

**Solution to Q8 to 11:**

8. (d) Content combinations PP in 1st box and PC in the 2nd box are eliminated as no label indicates the contents of the boxes correctly. Now if one of the four items is a ball then one of the combinations is either BC or BB.

Option (a) is wrong when the combinations are BC and BB.

Option (b) is wrong when the combinations are (i) BC along with PC or CC, (ii) BB along with CC, PC or BC.

Option (c) is wrong because the combination in box PP is BB and in box PC is PP.

Option (d) is obviously the answer.

9. (c) Label PP – CC  
Label CC – PP  
Label PP – BC

Now if the box with the label BC has contents BB, then the box with the label PC will have the contents PC and this is not allowed. Hence, option (c) is definitely wrong.

10. (d) The box containing the label BC has one ball and one clip. After the interchange, it will not contain the same combination. Now, there are only two boxes which have the ball as one of the items, so the other item will also be a ball.

11. (c) The box with the label PC contains two balls; the box with the label PP contains two clips and the box with the label CC contains one ball and one clip. The remaining two boxes contain two pins and one pin and one clip. Hence, if only one of the remaining boxes is opened, it will have at least one pin.

**Solution to Q12 to 16:**

12. (d) Option (d) is the answer.  
13. (b) Option (b) is the answer.

Let us take two possible scenarios:

Scenario 1: L, G and T would occupy the second, third and fourth cars, respectively. But this arrangement would not accommodate M, seated alone, immediately behind an empty car. Hence, this scenario is eliminated.

Scenario 2: Given the additional information, L must occupy the third car while T occupies the fifth car. Accordingly, M must occupy the second car and the first car must be empty.

However, P may occupy either the third or the fourth car. Thus, statement (b) is not necessarily true.

Again, consider two basic scenarios.

In Scenario 1: G is in the 3rd car, Given that J and the 7th person occupy the first car, M must occupy the fifth car alone.

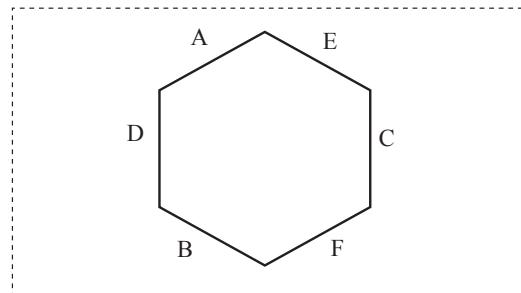
Scenario 2: G is in the 4th car. It is given that J and the 7th person occupy the 1st car, M must occupy the 3rd car (while the 2nd car is empty). Since T cannot share a car with G, T must occupy the 5th car. Again T cannot share a car with P, hence, P must share the 4th car with G.

Accordingly, L should share the 5th car with T.

14. (a) Total Number of persons = 6

Total Number of seats = 10

Number of vacant seats = 4. Out of these 4 seats, 3 seats are vacant because of M. So, only one out of remaining people can sit alone.

**Solution to Q17 to 20:**

18. (b) The rest are sitting adjacent to each other.

**Solution to Q21 to 23:**

21. (d) Eliminating the options. I must appear with N so, we can eliminate option (c). Also K must appear with L so, we can eliminate option (a). Finally J or M must be with H, so we can eliminate option (b). Hence, option (d) is the answer.
22. (d) The last condition requires that either J or M or both appear with H. M is on bench two. If J is assigned to bench one and H to bench three, then neither J nor M appears with H.
23. (b) I cannot be assigned to a bench without N so, option (b) violates one of the initial conditions.

## PRACTICE EXERCISE 2



### Solution to Q1 to 4:

1. (a) 1 3 7 5 4 9 0  
D H N L Q G T
2. (d) From (i) \$ and @ can be replaced by the combination of 2, 4, 6, 8 and 1, 3, 5, 7, 9 respectively.
3. (d) Using (iv)  
Q L P ↑ R N T  
4 5 8 0 6 7 0
4. (d) Obviously the answer is (d) None of these.

### Solution to Q5 to 7:

Day 1: X – AGH  
 Day 2: Z – BCE or DEF  
 Day 3: Y – DF or BC

### Solution to Q9 to 13:

The given information can be analysed as follows:

Qureshi—Mother of Sudhir	.....(ii) and (iii)
Sudhir—Son of Qureshi	.....(ii) and (iii)
Rajesh—Wife of Sudhir	.....(iv)
Pankaj—Son of Rajesh and Sudhir	.....(i)

### Solution to Q19 to 23:

18. (a) He visits Dr M before Dr N and Dr N before Dr Q.  
Hence, he must visit Dr M before Dr Q.
19. (a) Out of the six doctors if Dr S is first, Dr P is third and the order Dr M, Dr N, Dr Q and Dr M, Dr R is followed. Hence, Dr M must be visited second.
20. (d) Since Dr P is at the third place and order Dr M, Dr N, Dr Q and Dr M, Dr R is to be followed, so, immediately after Dr P he can visit any doctor except Dr M and which may occupy first or second place because Dr Q, Dr R and Dr N cannot precede him/her.
22. (a) According to the given conditions, Dr P must be in third place and the order Dr M, Dr N, Dr Q must not be violated.

### Solution to Q23 and 24:

23. (d) A is E's husband.
24. (c) E is the mother of F and C.

## PRACTICE EXERCISE 3



### Solution to Q1 to 4:

U – Umesh	V – Vishnu
X – Xinhua	Y – Yogesh
Z – Zeta	

We have,

$$U + V + X + Y + Z = 100$$

and each one of U, V, W, X, Z  $\leq 10$

$$U = V + X \text{ and } 3Y = 4Z$$

Now,

$$X = 8 + 3 = 11 \text{ or } X = 27 + 3 = 30$$

and  $U = 16, 25, 36, 49$

and  $V = 16, 25, 27, 36$

Observing the values of U, V and X, we can easily get that

$$X(11) + V(25) = U(36)$$

So,  $X = 11, V = 25$  and  $U = 36$

Now,  $Y + Z = 100 - (U + V + X)$

$$= 100 - (11 + 36 + 25) = 28.$$

Now put  $Y = 4/3 Z$  in the above equation to get

$$Z = 12 \text{ and then } Y = 16.$$

### Solution to Q5 to 9:

		A	B	C	D
+	C	A	B	E	B
-----					
		B	F	D	F
				C	

Start with the last column. We can infer that there has to be a carry over to the previous column so that  $C + 1 = B$ , or  $B - C = 1$ .

From the first column,  $D + B = C$  or  $D + B = C + 10$ ;  $D + B = B - 1$  or  $D + B = B + 9$ . Hence, D is equal to either  $-1$  or  $9$ . Since  $-1$  is not possible, so  $D = 9$ . Now there is a carry over to the next column, i.e.,  $C + E + 1 = F$  or  $C + E + 1 = F + 10$ .

Moreover,  $B + B = D$  is not possible as  $B + B = 2B$  which is always an even number. Thus,  $B + B + 1 = D$  or  $B + B + 1 = D + 10 = 19$ , i.e.,  $B = 4$  or  $B = 9$ . But B cannot be equal to 9 as  $D = 9$ . Hence,  $B = 4$ .

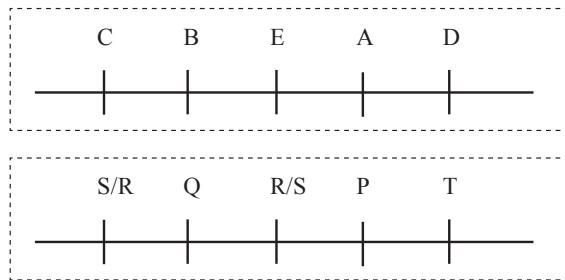
$$C = B - 1, \text{ so, } C = 3$$

$$A + A = F + 10 \text{ and } C + E + 1 = F + 10.$$

A	F	E
6	2	8
7	4	not possible as B = 4
8	6	12 not possible

Finally,

A	B	C	D	E	F
6	4	3	9	8	2

**Solution to Q10 to 13:****Solution to Q14 to 17:**

Order in Language: EACDFB or EACDBF or ACDBFE or ACDBEF or ACDEBF or ACDEFB or ACDFEB or ACDFBE

Order in Science: BCAFDE or BCAFD

**Solution to Q18 to 22:**

	Average	Good	Excellent	Total
Male	18	24	12	54
Female	27	9	0	36
Total	45	33	12	90

**PRACTICE EXERCISE 4****Solution to Q4 to 5:**

The possible groups are XYABK, XYBCK, XZBCJ and YZBCK.

4. (d) B must be chosen.
5. (d) A and B are chosen, then Z cannot be in the team. So, X and Y will be in the team and therefore so will K. Both I and II only are true.

**Solution to Q6 to 9:**

Villages	Post office	School	Accessibility by bridge	Electricity	Population		
					>5000	2000 to 5000	<2000
A	✓		✓			✓	
B	✓	✓	✓	✓	✓		
C						✓	
D		✓	✓	✓	✓		
E		✓					✓
Total		✓	✓	2	2	2	1

**Solution to Q10 to 14:**

Lecturer	Sex	Subject	Relative Age
Q	F	History	4/5
R	M	Biology	1
T	M	Mathematics	3
S	F	Sociology	6
P	F	Physics	2
U	F	Geography	5/4

The smaller the number, the lesser the age.

**Solution to Q15 to 19:**

Student	Subject	Author
R	Physics	Gupta
M	Chemistry	Edgar
N	Mathematics	Khanna
V	English	Harish
S	Biology	D'souza

**Solution to Q20 to 24:**

It is given that A and G sit on the 1st and the 3rd bench respectively.

Now, since F is a boy who sits with only B, B has to be a female. F and B sit on the 2nd bench.

On the basis of the above information, we can summarize the details as follows:

1st Bench	A	—
2nd Bench	F(+)	B(−)
3rd Bench	G	—

(+) Indicates male; (−) indicates female

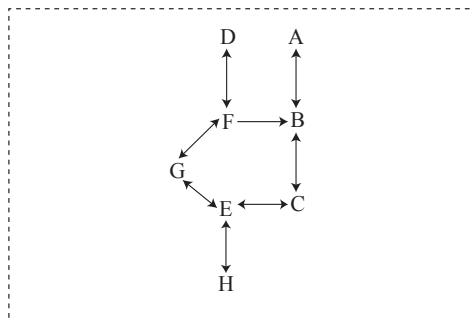
Now, since C (a girl) does not sit with A, E and D, it means that C sits on the 3rd bench (on the 2nd bench only two students sit). This by eliminating, E and D sit on the 1st bench.

Now, using the statement, “A sits with his best friend”, hence, A is a male. Again, E is a male as he is the brother of C. Eliminating the choices, D is a female but the sex of G is not known.

## PRACTICE EXERCISE 5

### Solution to Q1 to 4:

Let us first make the network of connections:



1. (a) Obviously, B – E is not possible.
2. (a) The path with the minimum possible cities in between will be D – F – G – E.
3. (b) The route will be A – B – C – E – F – G
4. (a) Making F – B a two way connection will give us the route A – B – F. In this case, only one city will need to be crossed.

### Solution to Q8 to 12:

Let us prepare the scenario first:

Seven friends are P, Q, R, S, T, V and W. Seven destinations: Delhi, Chennai, Hyderabad, Bangalore, Kolkata, Chandigarh and Patna.

Let us proceed with the following concrete information:

R-Patna – Monday; Bangalore – Saturday

P-Chandigarh; S-Kolkata – Friday, W-Delhi

With the help of the above information we get the following table:

**Table 1**

Number	Person	Destination	Day
1.	R	Patna	Monday
2.		Bangalore	Saturday
3.	P	Chandigarh	
4.	S	Kolkata	Friday
5.	W	Delhi	

Using the indirect information—Since Q did not leave for either Hyderabad or Bangalore, the above table helps us conclude that Q left for Chennai.

Now, T left the next day of P's departure and a day previous to W's departure. Using the above table, P and W did not depart on Monday, Saturday or Friday. T did not depart on Monday or Friday.

Now P cannot depart on Sunday or Thursday because T did not depart on Monday or Friday respectively. P cannot depart on Wednesday because he did not depart on Friday. So, by elimination, P left for Chandigarh on Tuesday.

Let us tabulate the information received till now:

**Table 2**

Number	Person	Designation	Day
1.	R	Patna	Monday
2.		Bangalore	Saturday
3.	P	Chandigarh	Tuesday
4.	S	Kolkata	Friday
5.	W	Delhi	Thursday
6.		Hyderabad	
7.	Q	Chennai	

Finally, since T left for his destination on Wednesday, it is obvious that T's destination is Hyderabad.

Hence, V is going to Bangalore and Q left for Chennai on Sunday.

So, the final table will look like:

**Table 3**

Number	Person	Designation	Day
1.	R	Patna	Monday
2.	V	Bangalore	Saturday
3.	P	Chandigarh	Tuesday
4.	S	Kolkata	Friday
5.	W	Delhi	Thursday
6.	T	Hyderabad	Wednesday
7.	Q	Chennai	Sunday

### Solution to Q13 to 16:

Order	Doctor	Duration of meeting	Gap (in minutes)
1.	O	9:00 am – 9:30 am	25
2.	S	9:55 am – 10:25 am	25
3.	R	10:50 am – 11:20 pm	25

<b>Order</b>	<b>Doctor</b>	<b>Duration of meeting</b>	<b>Gap (in minutes)</b>
4.	M	11:45 am – 12:15 pm	25
5.	Q	12:40 pm – 1:10 pm	50
6.	P/N	2:00 pm – 2:30 pm	25
7.	N/P	2:55 pm – 3:25 pm	-

**Solution to Q17 to 21:**

Let us first find out the scenario—There are three colleges, three disciplines and seven students. Further, we know that three of them are in the Commerce discipline and two each in Arts and Science.

We have been given that B and G are in Science, F in Arts and D is not in Commerce. This implies that D is in Arts. By elimination, the remaining (C, J and H) are in Commerce.

Thus we get the following table:

**Table 1**

<b>Discipline</b>	<b>Students</b>
Science	B and G
Arts	F and D
Commerce	C, J and H

Now, let us proceed to make a table which correctly matches the colleges and the students/discipline.

It is given that D (a male student) studies in college R only with B. This implies that only two students study in college R and B is a female. (Note that there are at least one boy and one girl in each college).

Further, it is known that B's sister G, and H (a female student) study in the same college. Now, this college cannot be P because in that case there will be only a single student (among the given students) in college Q. Hence, H and G study in college Q.

Still we do not know about the sex of J and C. Hence, the above information can be tabulated as follows:

**Table 2**

<b>College</b>	<b>Students</b>
P	J and C
Q	F (male), H (female) and G (female)
R	D (male) and B (female)

22. (c) ‘Father of the brother of my father’ is also the father of my father and hence, is my (woman’s) grandfather.

**Solution to Q24 to 25:**

Order of novel reading is as follows:

B – C – E – A – D

**PRACTICE EXERCISE 6**

2. (d) Engineering or architecture or Management

**Solution to Q5 to 10:**

5. (d) We cannot find a definitive answer to this question because the solution give rise to multiple over-lapping.  
 6. (c) Looking at the elective D, total number of points scored = 4 points and the number of students = 3. Since the range of the points obtained is 1-2, hence, the maximum 2 points can be obtained by only one student and remaining two students are getting one mark each.  
 7. (d) Same as that of Q1. Hence, Cannot be determined.

8. (d) To find the minimum number of students with more than 3 points, we should try to accommodate as much students as possible at 3 points each. And after we have accommodated enough students at 3 points each, remaining students will be accommodated at more than 3 points.

In case of elective A, maximum number of students who can get 3 points = 3. Hence, remaining 3 students are getting a total of 12 points. And in no way these 3 students are getting 3 points or less than 3 points to satisfy the conditions given.

In case of elective C, the minimum number of students that can be accommodated at 3 points each = 3. Hence, total points = 9. Now remaining 19 points are to be accommodated among 4 students and none of these five students can get 3 points or less than 3 points [Otherwise then 16 points will be required to be accommodated among 3 students and in that case at least one student will get more than 5 points and that is a contradiction].

We can further see that each of these students will get more than 3 points now to satisfy the given conditions.

Hence, minimum number of the students who have scored more than 3 points in at least one elective = 4.

9. (a) Total points obtained by the students of elective A = 21  
 Total points obtained by the students of elective B = 9  
 Total points obtained by the students of elective A + B = 30  
 Total number of students = 9  
 Hence, average = 30/9

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10. (d) In this question, at least one student is going to be overlapped. And without knowing the score of this student (or other overlapped students if any), we cannot find the average score of the elective N. Hence, Cannot be determined.

#### Solution to Q14 to 18:

Following is the structure of the stops on this route:

N	L	P	O	Q	M
Step 1	Step 2	Step 3	Step 4	Step 5	Step 6

or

O	Q	P	N	L	M
Step 1	Step 2	Step 3	Step 4	Step 5	Step 6

Now all the questions can be answered.

#### ◀ PRACTICE EXERCISE 7



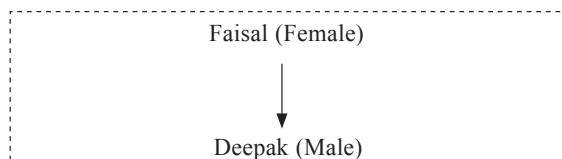
#### Solution to Q4 to 8:

We get the following information using the statements given:

Statement 1:

1st Generation	
2nd Generation	
3rd Generation	
4th Generation	XX
5th Generation	
6th Generation	Charu

Statement 2:



Faisal and Deepak will be in consecutive generations.

4. (d) If Atul is the grandson of Binod, then the only possibility for this family is:

1st Generation	Faisal
2nd Generation	Deepak
3rd Generation	Binod

4th Generation	XX
5th Generation	Atul
6th Generation	Charu

Hence, Atul is in the second last generation. Since Atul is the grandson, so Atul is a male.

5. (a) If Binod is the eldest member in the family, then following is the arrangement of the people in this family:

1st Generation	Binod
2nd Generation	Daisal
3rd Generation	Deepak (F)
4th Generation	XX
5th Generation	Atul
6th Generation	Charu

Hence, Deepak is a grandmother of Atul.

6. (d) Using the arrangement given in Q 5, we can see that Atul can be mother or father of Charu. Hence, Cannot be determined.
8. (d) Grandfather of Charu must have been in the fourth generation = 3rd last generation.

#### Solution to Q13 to 20:

13. (c) Total number of selections =  $2^3 = 8$   
Total selections possible =  $8 - 1 = 7$
14. (b) (P1, P2), (P1, P2, P3)
15. (c) P1, P3, (P1, P2), (P2, P3)
16. (a) P1, P3, (P1, P3), (P2, P3), (P1, P2, P3),
18. (b) (P1, P2)
19. (d) P1, P3, (P3, P2)
20. (a) None of the selections can be done.

#### Solution to Q21 to 26:

Sum of ranks of all the 16 players = 136.

Sum of the ranks of all the universities is same, hence, their sum should be divisible by 5. So, their sum should be either 135, or 130, or 125 or 120. In turn, the rank of the race-track maker will be either 1, or 6, or 11 or 16 respectively.

Since race-track maker comes in between the two athletes of university B, hence, rank cannot be 1 or 16.

Case 1: If the rank of race-track maker = 6

Hence, the sum of the ranks obtained of all the universities = 130, and so the sum of ranks of all the athletes of each of the universities = 26.

Since the race track maker comes in between two athletes of university B, hence, the ranks obtained by two of the athletes of university B are 5 and 7. Hence, the rank of the third athlete of university B =  $26 - (5 + 7) = 14$ .

Now the product of ranks of all the athletes of university B = Product of ranks of all the athletes of university C.

Product of ranks of university B contains 72 inter alia, and no other exponent of 7 is possible in the whole series of 1 to 16 for university C.

Hence, we can conclude that rank of race-track maker cannot be 6.

Now the only possible rank of race-track maker = 11.

Case 2: If the rank of race-track maker = 11

Hence, the sum of the ranks obtained of all the universities = 125, and so the sum of ranks of all the athletes of each of the universities = 25.

Since the race track maker comes in between two athletes of university B, hence, the ranks obtained by two of

the athletes of university B are 10 and 12. Hence, the rank of the third athlete of university B =  $25 - (10 + 12) = 3$ .

Hence, the ranks of athletes of university B = 3, 10, 12.

Now the product of ranks of all the athletes of university B = Product of ranks of all the athletes of university C.

Hence, the ranks of athletes of university C = 4, 6, 15.

We can observe that the product and sum of the ranks of athletes of university B and C are same.

From the remaining ranks now, for the smallest product of the ranks of athletes such that their sum is equal to 25, the ranks should be 1, 8, 16 (University K).

Similarly, for the maximum product of the ranks of the athletes for the university A, ranks should be 13, 7, 5.

Hence, the ranks for the athletes of the university L = 2, 9, 14.

$$\frac{A}{13, 7, 5}, \quad \frac{B}{3, 12, 10}, \quad \frac{C}{4, 6, 15}, \quad \frac{L}{2, 9, 14}, \quad \frac{K}{1, 8, 16}$$

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2

# Moderate Exercises

## ➤ PRACTICE EXERCISE 1

**Directions for questions 1 to 4:** Read the following passage and solve the questions based on it.

Three men (Tom, Peter and Jack) and three women (Eliza, Anne and Karen) are spending a few months at a hillside. They are to stay in a row of nine cottages, which are facing north; each one living in his or her own cottage. There are no others staying in the same row of houses.

- (i) Anne, Tom and Jack do not want to stay in any cottage which is at the end of the row.
  - (ii) Eliza and Anne are unwilling to stay beside any occupied cottage.
  - (iii) When Karen, Peter and Jack stand facing north, Karen finds that the cottage of both Peter and Jack are on her left-hand side.
  - (iv) Between Anne and Jack's cottage there is just one vacant cottage.
  - (v) None of the girls occupy adjacent cottages.
  - (vi) The cottage occupied by Tom is next to an end cottage.

Q 1. In how many different ways can their living arrangements be made?



Q 2. Consider the given statements:

Statement 1: The cottages of P and J are adjacent to each other

Statement 2: The cottages of T and K are adjacent to each other.

Statement 3: None of the cottages between E's and A's cottages are occupied

Statement 4: At least one of the cottages between K's and T's is occupied

If statement 1 is true, then how many of the statement/s from statement 2 to statement 4 is/are definitely true?



**Q 3.** In the above question, if statement 1 is true, then how many of the statement/s from statement 2 to statement 4 can be true?



Q 4. In the second question, if statement 4 is true, then how many of the statement/s from statement 2 to statement 4 is/are definitely true?



**Directions for questions 5 to 9:** Read the following passage and solve the questions based on it.

Amit, Bharat, Chandan, Dinesh, Eeshwar and Ferguson are cousins. None of them are of the same age, but all of them have birthdays on the same date. The youngest of them is 17 years old and Eeshwar, who is the eldest, is 22 years old. Ferguson is somewhere between Bharat and Dinesh in age. Amit is elder to Bharat and Chandan is older than Dinesh.

Q 5. Which of the following is not possible?

- Which of the following is not true?

  - (a) Dinesh is 20 years old
  - (b) Ferguson is 18 years old
  - (c) Ferguson is 19 years old
  - (d) Ferguson is 20 years old

Q 6. If Bharat is 17 years old, then which of the following could be the ages of Dinesh and Chandan respectively?

- (a) 18 and 19
  - (b) 19 and 21
  - (c) 18 and 20
  - (d) 18 and 21

- Q 7.** If two of the cousins are between Chandan and Ferguson in age, then which of the following must be true?

  - Amit is between Ferguson and Dinesh in age
  - Bharat is 17 years old
  - Bharat is younger than Dinesh
  - Ferguson is 18 years old

**Q 8.** If Amit is one year elder to Chandan, the number of logically possible orders of all six cousins by increasing age is

  - 2
  - 3
  - 4
  - 5

**Q 9.** If Chandan is 19 years old, which of the following must be true?

  - Amit is 20 years old and Dinesh is 21 years old
  - Bharat is 18 years old and Amit is 20 years old
  - Bharat is 20 years old and Amit is 21 years old
  - Dinesh is 17 years old and Bharat is 21 years old

**Directions for questions 10 to 11:** *Read the following passage and solve the questions based on it.*

There are five rooms in my house in Patna—a hall, kitchen, study room, bedroom and dining room. There is one light in each room. The following clever arrangements are planned in the house:

  - Whenever the kitchen light is ‘on’, the study room light is ‘off’.
  - Whenever the dining room light is ‘on’, the kitchen light is also ‘on’.
  - Whenever the study room light is ‘on’, the hall light has to be ‘on’.

**Q 10.** Which one of the following combinations cannot be ‘on’ at the same time?

  - Dinning room and kitchen
  - Hall and bedroom
  - Dinning room and study room
  - Kitchen and hall

**Q 11.** How many lights, at the most, can be ‘on’ simultaneously?

  - 5
  - 4
  - 3
  - 2

**Directions for questions 12 to 15:** *Read the following passage and solve the questions based on it.*

Guru Nanak Institute of Management will organize six once-a-month lecture series for young entrepreneurs as per the following schedule, with no dates conflicting for any two different programmes:

  - Marketing – August through January
  - Entrepreneurship – April through October
  - Law – January through September
  - Finance – March through June
  - Accounts – October through April
  - HR – October through December

**Q 12.** During which month are the fewest lectures scheduled?

  - January
  - February
  - June
  - September

**Q 13.** What is the maximum number of lectures that can be attended in a single month?

  - 7
  - 6
  - 5
  - 4

**Q 14.** How many months of the year must a student attend to hear all the lectures on Marketing, Entrepreneurship and Finance?

  - 11
  - 10
  - 9
  - 8

**Q 15.** How many different lectures can be attended during the months of January, February and March?

  - 11
  - 10
  - 8
  - 6

**Directions for questions 16 to 19:** *Read the following passage and solve the questions based on it.*

Two ants start climbing a slippery wall together, from the bottom of the wall. Ant A climbs at the rate of 3 inches per minute. Ant B climbs at the rate of 4 inches per minute. However, owing to the fact that the wall is slippery, ant A slips back 1 inch for every 2 inches climbed and ant B slips back 1.5 inches for every 2 inches climbed. Besides this, ant A takes a rest of 1 minute after every 2 minutes and ant B takes a rest of 1 minute after every 3 minutes. (Assume that both ant A and ant B slip continuously while climbing.)

**Q 16.** At what height on the wall, do the two ants meet each other?

  - Never
  - 3 inches
  - 5 inches
  - 12 inches

**Q 17.** If the widest gap achieved between the two ants, within the first 10 minutes, is N inches, then find the value of N?

  - 1 inch
  - 3 inches
  - 2.5 inches
  - 1.5 inches

**Q 18.** If ant B does not have any periods of rest, then how many times do the ants meet in the first 10 minutes?

  - 0
  - 1
  - 2
  - 3

**Q 19.** When ant A reaches a height of 12 inches on the wall, how far is ant B behind ant A?

  - 3.5 inches
  - 2 inches
  - 2.5 inches
  - 3 inches

**Directions for questions 20 to 22:** *Read the following passage and solve the questions based on it.*

KK, an aspiring entrepreneur wanted to set up a pen drive manufacturing unit. Since technology was changing very fast, he wanted to carefully gauge the demand and the likely profits before investing. Market survey indicated that he would be able to sell 1 lakh units before customers shifted to different gadgets. KK realized that he had to incur two kinds of costs – fixed costs (the costs which do not change, irrespective of numbers of units of pen drives produced) and variable costs (= variable cost per unit multiplied by number of units). KK expected fixed cost to be

Rs 40 lakhs and variable cost to be Rs 100 per unit. He expected each pen drive to be sold at Rs 200.

Q 20. What would be the break-even point (defined as no profit, no loss situation) for KK's factory, in term of sales?

- (a) Rs 80 lakhs
- (b) Rs 100 lakhs
- (c) Rs 120 lakhs
- (d) Rs 140 lakhs

Q 21. KK was doubtful that per unit variable might increase by 10% though the demand might remain same. What will be the expected changes in profit in such a case?

- (a) Profit would decrease by 10.33%
- (b) Profit will increase will by 15.75%
- (c) Profit would decrease by 15.75%
- (d) Profit will decrease by 16.67%

Q 22. He discussed his business with a chartered accountant. KK informed that he was contemplating a loan of Rs 20 lakhs at simple interest of 10% per annum for starting the business. The chartered accountant informed him that in such a case KK has to pay interest, followed by 30% tax.

By how much does KK's earnings change with 20% growth in sales vis-à-vis the original sales volume, in both cases considering same tax and interest on loan?

- (a) 20% (b) 16.7%
- (c) 25.6% (d) 34.5%

## ➤ PRACTICE EXERCISE 2

**Directions for questions 1 to 2:** Read the following statement and solve the questions based on them.

- (i) Seema is Raju's grandmother
- (ii) Ganesh is Raju's father
- (iii) Arun is Seema's sister
- (iv) Pratibha is Ganesh's wife
- (v) Arun is not Ganesh's aunt

Q 1. What is Seema's daughter Devaki to Raju?

- (a) Mother (b) Paternal aunt
- (c) Maternal aunt (d) Father's aunt

Q 2. Pratibha is Arun's

- (a) Sister (b) Sister-in-law
- (c) Maternal uncle (d) Niece

**Directions for questions 3 to 7:** Read the following passage and solve the questions based on it.

There are six persons in a family, viz., A, B, C, D, E and F—three males and three females, not necessarily in the same order. Out of these, there are two married couples and two persons who are unmarried. Each one of them likes a different newspaper, viz. Times, Express, Hindustan Times, Financial Times, Bharat Times and Business Standard.

E, who likes the Express, is A's mother-in-law and A is C's wife. D is F's father and he does not like the Times or the Business Standard. B likes the Bharat Times and is F's sister, who likes the Hindustan Times. C does not read the Business Standard.

Q 3. Who among the following likes the Times?

- (a) C (b) D
- (c) A (d) Cannot be determined

Q 4. How is F related to E?

- (a) Daughter (b) Brother
- (c) Son (d) None of these

Q 5. Which of the following is one of the married couples?

- (a) D-B (b) D-E
- (c) B-F (d) E-F

Q 6. Which of the following newspapers is read by A?

- (a) Times
- (c) Bharat Times
- (b) Business Standard
- (d) Data Inadequate

Q 7. How many sons does E have?

- (a) four (b) three
- (c) two (d) one

**Directions for questions 8 to 11:** Read the following passage and solve the questions based on it.

(i) There are five types of cards, viz., A, B, C, D and E, and three cards of each type. These are to be kept in envelopes of three colours—violet, yellow and black and there are five envelopes of each colour.

(ii) B, D and E type cards are to be kept in the violet envelopes. A, B and C type cards are to be kept in the yellow envelopes; and C, D and E type cards are to be kept in the black envelopes.

(iii) Two cards each of B and D type are to be kept in the violet envelopes.

Q 8. How many E type cards are kept in the black envelopes?

- (a) Nil (b) 1
- (c) 2 (d) 3

Q 9. Which of the following combinations of regarding the type of cards and the number of cards is definitely correct with respect to the yellow coloured envelopes?

- (a) A-2, B-1, C-2
- (b) B-1, C-2, D-2
- (c) A-2, E-1, D-2
- (d) None of these

Q 10. Which of the following combinations regarding the type of cards, the number of cards and the colour of envelopes is definitely correct?

- (a) C-2, D-1, E-2, Black
- (b) C-1, D-2, E-2, Black
- (c) B-2, D-2, A-1, Violet
- (d) None of these

Q 11. Which of the following combinations regarding the colour of envelopes and the number of cards is definitely correct with respect to the E type cards?

- (a) Violet – 2, Black – 1
- (b) Violet – 1, Yellow – 2
- (c) Violet – 2, Yellow – 1
- (d) None of these

**Directions for questions 12 to 15:** Read the following passage and solve the questions based on it.

- (i) There are six picture cards—A, B, C, D, E and F, each bearing the picture of a king, a priest, a queen, a palace, a joker and a prince. These are printed in six different coloured inks—blue, red, green, grey, yellow and black—and are arranged from left to right (not necessarily in the same order and colour)
  - (ii) The picture of the palace was in blue colour but it was not printed on card D.
  - (iii) Card A, which had the queen's picture printed in black ink, was at the extreme right.
  - (iv) The picture of the priest was neither on card D nor on card E and was not printed in either green or yellow coloured ink. Card C had a picture of the king on it in grey coloured ink. It was fifth from the right and next to card B which had the picture of the prince.

Q 12. If the priest's card is between the cards of the palace and the prince, then at what number from the left is the joker's card placed?

- (a) First                          (b) Fourth  
 (c) Fifth                        (d) Second

Q 13. Which of the following combinations of card and colour is true for the picture of the priest?

- (a) E-Yellow      (b) F-Red  
 (c) B-Green      (d) Data inadequate

Q 14 In which colour was the picture of the joker printed?

- In which colour was the picture of the joker?

(a) Yellow                    (b) Red  
 (c) Green                    (d) Data inadequate

**Q 15.** The picture of the palace was printed on which of the following cards?



**Directions** for questions 16 to 18: *Read the following passage and solve the questions based on it.*

To smoothen the process of issuing of passports, MEA has devised a ‘Single office–Three windows’ system. Under this system, the windows are named W1, W2 and W3. To ease the pressure upon the employees, the windows operate at different time slots on different days.

- (i) W1 is open between 10 am and 2 pm on Monday, Wednesday and Thursday and between 2:30 pm and 4:30 pm on Tuesday, Friday and Saturday.

(ii) W2 is open between 9 am and 12 noon on Tuesday, Thursday and Friday and between 1 pm and 3 pm on Monday, Wednesday and Saturday.

(iii) W3 is open between 8 am and 11 am on Monday, Tuesday, Thursday and Friday and between 1 pm and 3 pm on Monday, Wednesday and Saturday.

Q 16. On which of the following days are all the three windows simultaneously open any time before noon?

(a) Saturday      (b) Thursday  
(c) Wednesday    (d) Monday

- Q 17. On which day not more than one window is open simultaneously at any given time?

(a) Tuesday      (b) Wednesday  
(c) Friday      (d) Saturday

- Q 18. On which day's afternoon shots are W1 and W2 open simultaneously for some time?

  - (a) Saturday
  - (b) Thursday
  - (c) Monday
  - (d) Tuesday

**Directions** for questions 19 to 23: Read the following passage and solve the questions based on it.

- (i) Two wooden cubes A and B are placed adjacent to each other in front of you in such a way that A is to your left and B is to your right.
  - (ii) One pair of the opposite faces of cube A is painted the same colour, i.e., red colour. Another pair of opposite faces is painted blue and the other two remaining pairs of faces are painted Yellow and violet.
  - (iii) Only two opposite faces of cube B are painted blue in colour. The remaining pairs of opposite faces are painted in such a way that brown opposite to is green and one of the other two opposite faces is black and the other is white.

Q 19. If the red surface of cube A and the blue surface of cube B are touching the table; and the yellow surface of cube A and the black surface of cube B are facing you; then which coloured side of cube B is facing the blue side of cube A?

- (a) Brown
  - (b) Green
  - (c) White
  - (d) Either Brown or Green

Q 20. If the black surface of cube B is kept on top of the red surface of cube A, which coloured side of cube B will face the sky?

- (a) White  
(b) Blue  
(c) Brown  
(d) Data inadequate

Q 21. If the cubes are re-arranged one above the other in such a way that the white face of cube B is facing the sky and the yellow face of cube A is kept above it; then which coloured surface of cube A will be facing you?

- (a) Violet
  - (b) Blue
  - (c) Either Blue or Red
  - (d) Either Blue or Violet

Q 22. If cube B is kept to your left with the green coloured surface facing you and cube A kept to your right with the blue surface facing you; then which of the following pairs of colours of cube A and cube B will be facing each other?

- (a) Yellow-Black
  - (b) Yellow-White
  - (c) Black-Violet
  - (d) Data inadequate

**Directions for questions 24 to 25:** Read the following passage and solve the questions based on it.

There were eight friends, viz., P, W, T, S, U, Q, V and R—attending a New Year party. However, not all of them reached at the same time and not all of them guzzled the same quantity of beer at the party. Following is the data pertaining to their arrival and the drinks consumed by them at the party:

- (i) T drank more than P but less than V and left later than P but earlier than S.
  - (ii) P drank more than W at the party and left later than V.
  - (iii) U drank less than Q but more than V and left later than S.
  - (iv) W drank more than R and left earlier than V.

- Q 24. Who left the earliest?



- Q 25. Who among the following drank the least?



## ➤ PRACTICE EXERCISE 3

**Directions for questions 1 to 4:** Read the following passage and solve the questions based on it.

Six people—P, Q, R, S, T and U are X's husband, sister, son, daughter, mother and aunt, though not necessarily in that order. They satisfy the following conditions:

- (i) R and S are either both males or both females.
  - (ii) Either P or Q, or both are male.
  - (iii) Either T or U, or both are female.



- Q 2. Which of the following statements must be false?

  - (a) P is S's grandson
  - (b) S is P's niece
  - (c) P is Q's nephew
  - (d) U is T's son

- Q 3. If Q is U's daughter, then which of the following statements could be true?

- (a) P is X's sister    (b) U is R's aunt  
 (c) T is S's nephew    (d) Q is S's niece

- Q 4. If P is T's sister, then U could be any of the following

- except  
 (a) X's sister                    (b) X's daughter  
 (c) X's aunt                    (d) X's husband

**Directions for questions 5 to 9:** Read the following passage and solve the questions based on it.

A business school with six professors, viz., L, M, N, O, P and Q, has decided to implement a new scheme of course management. Each professor has to coordinate one course and support another course. This semester, O's support course is Finance, while three other professors are its coordinator's. P and Q have Marketing as one of their subjects. Q coordinates Operations, which is a support course for both N and P. Finance and IT are L's subjects. Both L and O have the same subjects . Strategy is a support course for only one of the professors.



**Directions for questions 10 to 12:** Read the following passage and solve the questions based on it.

During the Independence day celebrations at A R Academy last year, six different items, viz., Drama, Singing, Mimicry, Speech, Story-telling and Dance, were performed by six children viz., Abha, Binita, Sophiya, Devika, Esha and Ferguson, not necessarily in the same order. The programme began with the song which was not sung by Binita and ended with the dance item. Sophiya performed the mimicry item immediately after the speech. Esha performed the drama just before the dance sequence. Devika or Ferguson were not available for the last performance. The speech was not given by Abha and an interval of 30 minutes was given immediately after the mimicry item with three more items remaining to be performed. Devika performed immediately after the interval.

- Q 10. Which item was performed by Ferguson?  
(a) Drama                   (b) Song  
(c) Speech                  (d) None of these

Q 11. Who performed the dance item?  
(a) Abha                   (b) Binita  
(c) Ferguson               (d) Cannot be determined

Q 12. Who was the first performer?  
(a) Abha                   (b) Binita  
(c) Sophiya               (d) Cannot be determined

**Directions for questions 13 to 15:** Read the following passage and solve the questions based on it.

Next year in the Auto-Expo at Pragati Maidan, six cars, namely Uno, Verna, Wind, X-tra, Yale and Zen, are to be displayed. There will be six display stalls numbered 1, 2, 3, 4, 5 and 6 from the left to the right in such a way that only one car is showcased in each stall. However, the car Uno cannot be placed adjacent to the Verna and the Car Wind must be showcased to the left of X-tra. The Zen cannot be displayed in stall number 6.

Note: The direction (left or right) should be determined with respect to the observer/shopper.

Q 13. Which of the following cars cannot be placed in stall number 1?

- (a) Uno
- (b) Verna
- (c) Wind
- (d) X-tra

Q 14. If the X-tra is placed in stall number 3, in which stall can the Wind be placed?

- (a) 1
- (b) 2
- (c) 4
- (d) 5

Q 15. If the Uno is placed in stall number 5, which of the following cars must be placed in stall number 6?

- (a) Verna
- (b) Wind
- (c) Yale
- (d) X-tra

**Directions for questions 16 to 17:** Read the following passage and solve the questions based on it.

- (i) Six men, viz., Rajesh, Dinesh, Lokesh, Nilesh, Shailesh and Himesh work for different companies, namely P, Q, R, S, T and U. Each one wears a different coloured company-sponsored tie, i.e., brown, green, pink, yellow, purple and red, though not necessarily in the same order.
- (ii) The one wearing the brown tie works for the company S and the one wearing the green tie works for the company P.
- (iii) Himesh does not work for either R nor T.
- (iv) Rajesh wears a pink tie and works for the company Q.
- (v) Nilesh does not work for the company T and a purple coloured tie is not given by the company R.
- (vi) Shailesh works for the company U and neither Nilesh nor Dinesh work for the company S.
- (vii) The company T does not sponsor a purple or a yellow coloured tie and Lokesh works for the company P.

Q 16. Which of the following is true?

- (a) The company U sponsors a green coloured tie.
- (b) Shailesh wears a red coloured tie.
- (c) Nilesh works for the company T.
- (d) The red coloured tie is sponsored by the company T.

Q 17. Which of the following sequence of companies represent Rajesh, Dinesh, Lokesh, Nilesh, Shailesh and Himesh in the same order?

- (a) Q, P, T, R, U, S
- (b) Q, T, P, R, U, S

- (c) Q, P, T, S, U, R
- (d) Q, T, S, U, R, P

**Directions for questions 18 to 21:** Read the following passage and solve the questions based on it.

- (i) The length, breadth and height of a rectangular piece of wood are 4 cm, 3 cm and 5 cm respectively.
- (ii) Opposite sides of the 5 cm × 4 cm piece are coloured red.
- (iii) Opposite sides of the 4 cm × 3 cm piece are coloured blue.
- (iv) Rest of the sides of size 5 cm × 3 cm are colourued green on both sides.
- (v) Now the rectangular piece is cut in such a way so that cubes of size 1 cm × 1 cm × 1 cm can be made.

Q 18. How many cubes will have all the three colours?

- (a) 8
- (b) 10
- (c) 12
- (d) 14

Q 19. How many cubes will not have any colour?

- (a) 0
- (b) 2
- (c) 4
- (d) 6

Q 20. How many cubes will have only two colours (red and green) on their two sides?

- (a) 8
- (b) 12
- (c) 16
- (d) 20

Q 21. How many cubes will have only one colour?

- (a) 8
- (b) 12
- (c) 16
- (d) 22

**Directions for questions 22 to 26:** Read the following passage and solve the questions based on it.

Out of a stock of five essences, viz., L, M, N, O and P, two or more essences are used by a manufacturer in making all the perfumes. He has learned that for a blend of essences to be agreeable, they should comply with all the rules listed below.

- (i) A perfume containing the essence L should also contain the essence N and the quantity of N should be twice as that of L.
- (ii) A perfume containing the essence M must also have the essence O as one of its components and they should both be in equal proportions.
- (iii) No perfume should contain the essence N as well as the essence O.
- (iv) The essence O and P the essence should not be used together.
- (v) A perfume containing the essence P should contain it in such a proportion that the total amount of the essence P present should be greater than the total amount of the other essence or essences used.

Q 22. Which is an agreeable formula for a perfume from among the following?

- (a) One part L, one part P
- (b) Two parts M, two parts L

- (c) Three parts N, three parts L  
 (d) Four parts O, four parts M
- Q 23. Adding more amounts of the essence N, which of the following perfumes will become agreeable?  
 (a) One part L, one part N, five parts P  
 (b) Two parts M, two parts N, two parts P  
 (c) One part M, one part N, one part P  
 (d) Two parts M, one part N, four parts P
- Q 24. The addition of which combination among the following would make an unagreeable perfume containing two parts N and one part P agreeable?  
 (a) One part L      (b) One part M  
 (c) Two parts N      (d) Two parts P
- Q 25. Which among the following combinations cannot be used together in an agreeable perfume containing two or more essences?  
 (a) L and M      (b) L and N  
 (c) L and P      (d) P and N
- Q 26. Among the below mentioned formulae, which can be made agreeable by eliminating some or all of one essence?  
 (a) One part L, one part M, one part N, four parts P  
 (b) One part L, two parts N, one part O, four parts P  
 (c) One part L, one part M, one part O, one part P  
 (d) Two parts M, one part N, two parts O, three parts P

#### ➤ PRACTICE EXERCISE 4

**Directions for questions 1 to 4:** Read the following passage and solve the questions based on it.

A total of six teams participated in the PHL held at Chennai last year. The schedule of the tournament was such that each team had to play against every other team six times. Points were awarded for wins (W), losses (L) and draws (D). The following table gives the details of the various teams:

	Sikkim	Goa	Gujarat	Bihar	MP	Chandigarh
W	13	7	12	X	10	9
L	15	18	15	Y	16	15
D	2	5	3	Z	4	6

- Q 1. How many W, L and D combinations were possible for the Bihar team?  
 (a) 1      (b) 2  
 (c) 3      (d) None of these
- Q 2. If we gave 5 points for a win, -3 points for a loss and 2 points for a draw, then what could be the maximum possible difference between the points of two teams?  
 (a) 123      (b) 153  
 (c) 163      (d) None of these

- Q 3. If Gujarat lost all the matches to only three teams with a point distribution of 5, 5 and 5 and Bihar scored the first rank with the maximum possible wins; then which team did Bihar lose its match against?  
 (a) Sikkim  
 (b) Gujarat  
 (c) MP  
 (d) Cannot be determined
- Q 4. The team which got the maximum number of points won the PHL. Which team was that?  
 (a) Sikkim      (b) Gujarat  
 (c) Bihar      (d) Cannot be determined

**Directions for questions 5 to 9:** Read the following passage and solve the questions based on it.

P, Q, R, S, T, U and V are sitting in a circle facing the centre. Following are the details of their order of sitting:

- (i) S, who is second to the right hand side of R, is not to the immediate right of V.
  - (ii) U is not between V and T.
  - (iii) P is between R and Q.
- Q 5. Which of the following statement is wrong?
- (i) T is to the immediate left of R.
  - (ii) Q is to the immediate left of U.
  - (iii) U, S and T are in a sequence, one after the other.
  - (a) Only I      (b) Only II  
 (c) Only III      (d) I and II

- Q 6. Which of the following are the two pairs of adjacent members?
- (a) VS and TR      (b) SU and PQ  
 (c) PR and TQ      (d) None of these

- Q 7. What is the position of T?
- (a) To the immediate left of R
  - (b) Second to the left of P
  - (c) Fourth to the left of U
  - (d) None of these

- Q 8. Which of the following statement is correct?
- (i) V is third to the left of R
  - (ii) U is between S and V
  - (iii) Q is to the immediate left of P
  - (a) Only I      (b) Only II  
 (c) Only III      (d) II and III

- Q 9. If Q and R interchange places so as to be like T and V, then which of the following is true?
- (a) S is third to the right of R
  - (b) T is second to the left of R
  - (c) Q is fourth to the right of T
  - (d) None of these

**Directions for questions 10 and 11:** Read the following passage and solve the questions based on it.

- (i) Five boys are standing in a line facing the wall. Each boy is either wearing red, green, yellow, white or blue dress.

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- (ii) The boy dressed in yellow is not standing at any end of the line.  
(iii) The boy dressed in red is not standing at any end of the line.
- Q 10. What colour dress is the boy in the middle wearing?  
(a) Green                   (b) Blue  
(c) Red                      (d) Cannot be determined
- Q 11. What colour dress has been worn by the boy who is standing to the right side of the boy dressed in yellow?  
(a) White                   (b) Green  
(c) Blue                     (d) Cannot be determined

**Directions for question 12 to 17:** *Read the following passage and solve the questions based on it.*

There are five specializations—Marketing, Finance, Production, Personnel and Systems—available at the IIM. It is necessary for all students to take up a combination of at least two of the above specializations.

Based on common preferences, pre-set combinations called modules are offered, which are coded S001, S002, S003, S004 and S005. Each of these modules has two specializations, so that every specialization is assigned to two modules. Further, to allow for uncommon preferences a student is allowed to take up more than one combination in such a way that the specialization common to the two modules is dropped.

However, a student can specialize in more than two subjects by manipulating the combination of modules.

Additional information is as follows:

S001 has not been assigned to Production. S003 has not been assigned to Marketing. S004 has not been assigned to Finance. By choosing S001 and S003, one may specialize in Marketing and Systems. By choosing S001 and S002 one may specialize in Marketing, Production, Finance and Personnel. By choosing S001 and S004 one may specialize in Finance and Personnel.

- Q 12. What specializations are possible by choosing S001, S002 and S003?  
(a) Marketing, Finance and Personnel  
(b) Marketing, Production and Personnel  
(c) Finance, Personnel and Production  
(d) Marketing, Production, Personnel and Systems
- Q 13. Which of the following number of modules give the maximum number of specializations?  
(a) S003 and S004  
(b) S002 and S004  
(c) S002 and S003  
(d) S004 and S005
- Q 14. What is the maximum number of modules that a student can take to specialize in at least two areas?  
(a) 2                           (b) 3  
(c) 4                           (d) 5
- Q 15. Which of the following number of specializations is impossible for any student to take?  
(a) 2                           (b) 3  
(c) 4                           (d) None of these

- Q 16. Personnel is available in modules  
(a) S002 and S003   (b) S001 and S003  
(c) S002 and S004   (d) S003 and S005
- Q 17. Finance is available in modules  
(a) S001 and S003   (b) S003 and S004  
(c) S002 and S003   (d) S001 and S004

**Directions for questions 18 to 22:** *Read the following passage and solve the questions based on it.*

For a motorist, there are three ways of going from city A to city C by a 20 km long, toll highway the toll for which is Rs 25 per entry; a 10 km long tunnel between the two cities, the toll for which is Rs 40 per entry; and a two-lane, toll-free highway which goes 30 km east to city B and then 20 km north-west to city C.

The running cost of the motorist = Re 1/km.

- Q 18. Which of the following is the costliest way of going from city A to city C?  
(a) Tunnel  
(b) Toll highway  
(c) Toll-free highway  
(d) Tunnel or toll-free highway
- Q 19. To connect the cities better, a master plan has been devised. According to this plan, a new toll-highway is to be built from the mid-point of the highway connecting cities A and B to city C. The toll for this new highway is Rs 30 per entry. Which of the following is the cheapest route between city A to city C?  
(a) Tunnel  
(b) Toll highway  
(c) Toll-free highway  
(d) New proposed highway
- Q 20. Due to CNG, the cost of the motorist has reduced to Rs 0.5/km. Which of the following is the cheapest way to go from city A to city C?  
(a) Tunnel  
(b) Toll highway  
(c) Toll-free highway  
(d) Tunnel or toll-free highway
- Q 21. If we combine the data of question 2 and question 3, then which of the following is the cheapest way to go to city C from city A?  
(a) Tunnel  
(b) Toll highway  
(c) Toll-free highway  
(d) New proposed highway
- Q 22. According to a new system, motorists are supposed to pay a bribe at the starting of their journey. This bribe has to be a one-time bribe only and no other bribe is to be paid during the earlier journey. What should be the bribe amount at the toll highway such that the total expenses on the toll highway become equal to the total expenses on the toll-free highway?  
(a) Rs 5                           (b) Rs 10  
(c) Rs 15                       (d) None of these

**Directions for questions 23 to 25:** Read the following passage and solve the questions based on it.

Two out of Anil, Balraj and Chandan are fighting each other. The given statements are

- (i) The shorter one out of Anil and Balraj is the older of the two fighters.
- (ii) The younger one out of Balraj and Chandan is the shorter of the two fighters.
- (iii) The taller one out of Anil and Chandan is the younger of the two fighters.

Q 23. Who is not fighting?

- (a) Anil (b) Balraj
- (c) Chandan (d) Data inconsistent

Q 24. Who is the tallest?

- (a) Anil (b) Balraj
- (c) Chandan (d) Data inconsistent

Q 25. Who is the youngest?

- (a) Anil (b) Balraj
- (c) Chandan (d) Data inconsistent

## ➤ PRACTICE EXERCISE 5

**Directions for questions 1 to 4:** Read the following passage and solve the questions based on it.

A chess tournament is taking place at the college club and the players on all the four tables are engaged in their fourth game against their respective opponents. The players with the white pieces are: Sharukh, Sanjay, Saif and Shakti. The players with the black pieces are: Salman, Sunny, Sunil and Sohail. The scores are 3 : 0, 2.5 : 0.5, 2 : 1 and 1.5 : 1.5 (Note: Tied games result in a score of 0.5 for each player).

- (i) The player using the white pieces at table 4 is Shakti; however, the current score at the table is not 2 : 1.
- (ii) Saif is playing at the table on the right hand side of Sohail, who has lost all his games until now.
- (iii) Sunil, who is not in the lead against his opponent, has not been in a tied game.
- (iv) Salman is leading his match after his last three games.
- (v) Sanjay is playing against Sunny.

(One win gets point for the winner whereas a player gets no point for losing the game).

Q 1. What table is Sohail playing at, and what is the score at that table?

- (a) Table 1: 2.5-1.5 (b) Table 2: 3-0
- (c) Table 2: 2.5-1.5 (d) Table 3: 2-1

Q 2. Which player has the higher score?

- (a) Salman (b) Saif
- (c) Sunny (d) Sunil

Q 3. Which player had the black pieces alongwith and the lowest score?

- (a) Salman (b) Sunny
- (c) Sunil (d) Sohail

Q 4. Who is the winning player at table 4?

- (a) Salman (b) Shakti
- (c) Sharukh (d) Sanjay

**Directions for questions 5 and 6:** Read the following passage and solve the questions based on it.

If the sum of the rows, columns and the diagonals are equal in the following table, then:

$y$	$x$	$y - 2$
$y - 1$	$y + 1$	---
---	---	---

Q 5. If  $x = 10$ , then what is the value of  $y$ ?

- (a) 5 (b) 10
- (c) 6 (d) 15

Q 6. If the sum of any of the rows, columns or diagonals is 21, then what is the value of  $x$ ?

- (a) 5 (b) 11
- (c) 15 (d) Cannot be determined

**Directions for questions 7 and 8:** Read the following passage and solve the questions based on it.

In a multiplex, nine shops are connected by corridors. Anyone visiting these shops must begin at the reception which is a part of shop number 1. From there, the other shops may be visited via the different corridors connecting them. The details of the corridors connecting the various shops are as under:

- (i) Corridors connect the reception to shops number 2, 3 and 6.
- (ii) A corridor connects the reception to shop number 2 and then to shop number 4.
- (iii) Corridors connect the shops number 2 and 3 to shop number 7.
- (iv) Shop number 6 is connected to shops number 1, 5 and 9.
- (v) Shop number 7 is connected to shop number 9.
- (vi) Shops number 7 and 9 are connected to shop number 8.

Q 7. Without visiting any shop more than once, what is the maximum number of shops that a person can visit?

- (a) 5 (b) 6
- (c) 7 (d) 8

Q 8. If a visitor wants to travel to shops number 4 and 5, which one of the following options must be False?

- (a) The visitor will go to every shop except shop 3.
- (b) The visitor will go to shop 2 only once.
- (c) The visitor will not visit any shop more than once.
- (d) The visitor will visit at least six different shops.

**Directions for questions 9 to 11:** Read the following passage and solve the questions based on it.

(Any additional information provided with a particular question pertains to that individual question only.)

The placement office of a management school has to schedule seven companies viz., P, Q, R, S, T, U and V for the placement week (the week starts on a Sunday) but not necessarily in that order. This group of seven companies is divided into three categories, viz., finance, manufacturing and sales. There are three companies in the final category and two each in one manufacturing and sales categories. The placement schedule is such that the same category companies have to be scheduled consecutively. It has also been decided that:

- (i) Company S, which is a manufacturing company, cannot be scheduled on the sixth day of the week.
- (ii) Companies Q and U are scheduled consecutively but not necessarily in that order.
- (iii) Company T can be scheduled on any day of the week except on a Saturday.
- (iv) Company R, which is in the same category as the companies Q and U, has to be scheduled on the third day of the week.

Q 9. If P is scheduled on Wednesday, which one of the following options has to be True?

- (a) U has to be scheduled on Thursday.
- (b) V has to be scheduled either on Friday or on Saturday.
- (c) T has to be scheduled on either Thursday or Friday.
- (d) S is always scheduled before Q.

Q 10. If S is scheduled on Monday, which one of the following options is definitely False?

- (a) P and T are sales companies.
- (b) The maximum number of days in between the schedules of T and U is three.
- (c) R is always scheduled before Q.
- (d) There are three schedules for P being slotted on a Sunday.

Q 11. If T is a sales company and S is scheduled for Saturday, then which of the following schedules are possible?

Schedule I            U-Q-R-T-P-V-S

Schedule II          P-T-R-U-Q-V-S

Schedule III        T-V-R-Q-U-P-S

Schedule IV        Q-U-R-P-V-T-S

- (a) I, III and IV
- (b) II, III and IV
- (c) I, II and IV
- (d) I, II and III

**Directions for question 12:** Read the following passage and solve the questions based on it.

There are five boxes—T, U, W, X and Z—that are to be delivered on five consecutive days, Monday through Friday, one box per day. The following conditions are to be kept in mind while formulating the delivery schedule of the boxes:

- (i) Box X is not to be delivered on Monday.
- (ii) If box T is delivered on Monday, then box X must be delivered on Friday.
- (iii) If box X is delivered on Tuesday, box U is delivered on Monday.

- (iv) Box W is delivered the next day following the delivery of box Z.

Q 12. If box W is delivered on Friday, which of the following must be false?

- (a) Box Z is delivered on Thursday.
- (b) Box X is delivered on Wednesday.
- (c) Box T is delivered on Tuesday.
- (d) Box U is delivered on Tuesday.

**Directions for questions 13 to 17:** Read the following passage and solve the questions based on it.

Tetraicosa is a game which is played by rolling six dices simultaneously. While playing the game:

If rolling six dices were rolled, then the following was observed:

- (i) Three of the dices showed the same number. The rest showed different numbers.
- (ii) Only one dice showed 6.
- (iii) Not more than three dice showed 4 or more.

Q 13. Find the minimum possible total of numbers on the faces of all the six dice if three dice show the same number 2.

- |        |                   |
|--------|-------------------|
| (a) 14 | (b) 21            |
| (c) 18 | (d) None of these |

Q 14. Find the maximum total if four of the dice show less than 4.

- |        |                   |
|--------|-------------------|
| (a) 29 | (b) 32            |
| (c) 22 | (d) None of these |

Q 15. If the third observation is waived, then what would be the maximum total if three dice were faulty and had only 5 on all the faces?

- |        |                   |
|--------|-------------------|
| (a) 31 | (b) 28            |
| (c) 34 | (d) None of these |

Q 16. If only one dice shows 1, what is the maximum number of dice with numbers greater than 4?

- |       |       |
|-------|-------|
| (a) 3 | (b) 1 |
| (c) 2 | (d) 4 |

Q 17. What is the maximum number that can be on the faces of the three dices which show the same number?

- |       |       |
|-------|-------|
| (a) 2 | (b) 4 |
| (c) 3 | (d) 5 |

**Directions for questions 18 to 21:** Read the following passage and solve the questions based on it.

Seven persons A, B, C, D, E, F and G contested in a game show that had a total prize money of Rs 14 lakhs. Every contestant won some prize money and the highest prize money was Rs 3.5 lakhs. No two contestants won the same amount of prize money. For every person the difference with the next highest and the next lowest contestant was the same.

- (i) E won Rs 2 lakhs.
- (ii) B won more money than A.
- (iii) The difference in prize money between B and A was the least.

- (iv) The difference in prize money between D and F was not the least.  
(v) There was at least one person whose prize money was between that of E and G.

Q 18. Which of the following is a proper list of persons in an increasing order of prize money won?

- (a) G, C, F, B, E, D, A  
(b) D, F, C, E, A, B, G  
(c) F, C, D, E, A, B, G  
(d) A, B, G, C, F, E, D

Q 19. If D won more than E, and B and G together won Rs 3.5 lakhs, which of the following must be true?

- (a) D won Rs 3.5 lakhs  
(b) A won Rs 1.5 lakhs  
(c) B won Rs 1.5 lakhs  
(d) C won Rs 50,000

Q 20. If the difference in prize money between A and C is the least; which of the following pairs must not have won prize money that differs by the minimal amount?

- (a) B and E      (b) C and G  
(c) D and G      (d) A and E

Q 21. If the total money won by A and D is equal to that of G and the difference between E and D is at least 1 lakh, then which of the following must be True?

- (a) A and B together won Rs 3 lakhs  
(b) B and F together won Rs 3.5 lakhs  
(c) C and E together won Rs 3 lakhs  
(d) B and C together won Rs 3.5 lakhs

**Directions for questions 22 to 25:** Read the following passage and solve the questions based on it.

Abhishek, Bhushan, Chandan, Dayal, Eklavya and Franklin are friends married to Rekha, Stuti, Urmila, Varsha, Trupti and Wanda, not necessarily in the same order.

Following facts are also given:

- (i) Rekha and Stuti are Abhishek's sisters  
(ii) Neither Rekha nor Trupti is Chandan's wife  
(iii) Wanda is Eklavya's wife and Varsha is Bhushan's wife  
(iv) Dayal is not married to Rekha, Stuti or Trupti.

Nobody can marry his sister and vice versa. Each person mentioned above practices monogamy.

Q 22. Who is Abhishek's wife?

- (a) Rekha      (b) Urmila  
(c) Trupti      (d) Cannot be determined

Q 23. Who is Rekha's husband?

- (a) Chandan      (b) Franklin  
(c) Bhushan      (d) Dayal

Q 24. Who is Dayal married to?

- (a) Urmila      (b) Varsha  
(c) Trupti      (d) Rekha

Q 25. Who is Stuti married to?

- (a) Abhishek  
(b) Dayal  
(c) Franklin  
(d) Chandan

# ANSWERS

## ↳ PRACTICE EXERCISE 1

Q. No.	Answer						
1	(a)	2	(c)	3	(c)	4	(b)
5	(d)	6	(b)	7	(d)	8	(a)
9	(c)	10	(c)	11	(b)	12	(b)
13	(d)	14	(a)	15	(c)	16	(b)
17	(b)	18	(b)	19	(d)	20	(a)
21	(d)	22	(d)				

## ↳ PRACTICE EXERCISE 2

Q. No.	Answer						
1	(c)	2	(d)	3	(a)	4	(c)
5	(b)	6	(c)	7	(c)	8	(c)
9	(d)	10	(a)	11	(d)	12	(a)
13	(b)	14	(d)	15	(a)	16	(b)
17	(c)	18	(c)	19	(d)	20	(a)
21	(c)	22	(d)	23	(d)	24	(d)
25	(b)						

## ↳ PRACTICE EXERCISE 3

Q. No.	Answer						
1	(a)	2	(d)	3	(d)	4	(b)
5	(d)	6	(b)	7	(c)	8	(a)
9	(a)	10	(d)	11	(d)	12	(d)
13	(d)	14	(b)	15	(c)	16	(d)
17	(a)	18	(a)	19	(d)	20	(b)
21	(d)	22	(d)	23	(a)	24	(d)
25	(a)	26	(b)				

## ↳ PRACTICE EXERCISE 4

Q. No.	Answer						
1	(b)	2	(b)	3	(b)	4	(d)
5	(d)	6	(d)	7	(d)	8	(c)
9	(d)	10	(d)	11	(d)	12	(d)
13	(c)	14	(c)	15	(b)	16	(c)
17	(a)	18	(d)	19	(b)	20	(c)
21	(c)	22	(a)	23	(c)	24	(a)
25	(a)						

## ◀ PRACTICE EXERCISE 5

Q. No.	Answer						
1	(b)	2	(a)	3	(d)	4	(a)
5	(a)	6	(b)	7	(d)	8	(c)
9	(c)	10	(d)	11	(d)	12	(d)
13	(b)	14	(d)	15	(a)	16	(c)
17	(b)	18	(c)	19	(a)	20	(d)
21	(b)	22	(c)	23	(b)	24	(a)
25	(d)						

## HINTS AND EXPLANATIONS

### ◀ PRACTICE EXERCISE 1



#### Solution to Q5 to 9:

The given information can be sequenced as:

Eeshwar is the eldest;

Amit > Bharat;

Chandan > Dinesh, and

Dinesh < Ferguson < Bharat, or

Bharat < Ferguson < Dinesh

Now, the following possible arrangement can be attained:

	22	21	20	19	18	17
(1)	Eeshwar	Amit	Bharat	Ferguson	Chandan	Dinesh
(2)	Eeshwar	Amit	Bharat	Chandan	Ferguson	Dinesh
(3)	Eeshwar	Amit	Chandan	Bharat	Ferguson	Dinesh
(4)	Eeshwar	Chandan	Amit	Bharat	Ferguson	Dinesh
(5)	Eeshwar	Chandan	Dinesh	Ferguson	Amit	Bharat
(6)	Eeshwar	Chandan	Dinesh	Amit	Ferguson	Bharat
(7)	Eeshwar	Chandan	Amit	Dinesh	Ferguson	Bharat
(8)	Eeshwar	Amit	Chandan	Dinesh	Ferguson	Bharat

5. (d) From the above arrangement, we see that Dinesh can be 20 years of age [(5), (6)], Ferguson can be 18 years old [(2), (3), (4)] and Ferguson can also be 19 years old [(1), (5)]. However, Ferguson can never be 20 years old.
6. (b) If Bharat is 17 years old, the possible arrangements are (5), (6), (7) and (8).  
From the options, we can see that the only possible answer is (b).
7. (d) There are two cousins between Chandan and Ferguson in age reference [(4); (6) and (7).] In all the cases, we have Ferguson's age as 18 years.
8. (a) Amit is one year older than Chandan in only two arrangements. [(3) and (8)].
9. (c) If Chandan is 19 years old, the only possible arrangement is (2) Clearly, Amit is 21 years old and Bharat is 20 years old.

#### Solution to Q10 and 11:

10. (c) Let us go through various options:  
Option (a): The dining room and kitchen lights can certainly be 'on' at the same time [reference (ii)].  
Option (b): There is nothing given in the data to indicate that the hall and bedroom lights cannot be 'on' at the same time.  
Option (c): Whenever the dining room light is 'on', the kitchen light is 'on' [reference (ii)] and whenever the latter is 'on', the study room is 'off' [reference (i)]. Hence, the dining room and the study room lights cannot be 'on' at the same time. Hence, option (c) is the answer.

Regarding option (d), note that the hall and kitchen lights can be 'on' at the same time. When the kitchen light is 'on', the study room light is

'off' [reference (i)]. Whenever the study room light is 'on' the hall light is also 'on' [reference (iii)]. But this does not mean that the hall light is 'off' when the study room light is 'off'. That would be true, only if statement (iii) says, "The hall light is 'on' only if the study room light is 'on,'" but that is not so. Hence, there is no restriction on the hall light being 'on' when the kitchen light is 'on'.

11. (b) The bedroom, kitchen, dining room and the hall lights can all be 'on' simultaneously. Hence, the maximum number of lights that can be on simultaneously is 4.

**Solution to Q16 to 19:**

16. (b) As per the question the following data is available to us:

Ant A climbs 3 inches per minute; ant B climbs 4 inches per minute; ant A slips back 1 inch for every 2 inches climbed; ant B slips back 1.5 inches for every 2 inches climbed.

Ant A takes a rest break of 1 minute after every 2 minutes.

Ant B takes a rest break of 1 minute after every 3 minutes.

After minutes

1	2	3	4
5	6	7	8
9	10	11	12

Ant A

2"	3"	3"	5"
6"	6"	8"	9"
9"	11"	12"	12"

Ant B

1"	2"	3"	3"
4"	5"	6"	6"
7"	8"	9"	9"

After minutes

1	2	3	4
5	6	7	8
9	10	11	12

Ant A

2"	3"	3"	5"
6"	6"	8"	9"
9"	11"	12"	12"

Ant B

1"	2"	3"	4"
5"	6"	7"	8"
9"	10"	11"	12"

**Solution to Q20 to 22:**

20. (a) Expected profit margin (known as contribution) per unit = Rs 200 – Rs 100 = Rs 100

$$\text{Hence, break even sales units} = \frac{\text{Fixed Cost}}{\text{Profit margin per unit}}$$

$$\frac{\text{Rs } 40 \text{ lakhs}}{\text{Rs } 100} - 40,000 \text{ units}$$

$$\text{Hence, net sales} = 40,000 \times 200 = \text{Rs } 80 \text{ lakhs}$$

21. (d) Original profit = Total sales – Total cost (fixed cost + variable cost) = (Rs 200 × 1 lakh) – (40 lakhs + Rs 100 × 1 lakh) = Rs 60 lakhs

Now, new variable cost = Rs 110/unit, and everything else remains same.

So new profit = (Rs 200 × 1 lakh) – (40 lakhs + Rs 110 × 1 lakh) = Rs 50 lakhs

$$\text{So, percentage decrease in profit} = \frac{\text{Rs } 10 \text{ lakhs}}{\text{Rs } 60 \text{ lakhs}} \times 100 = 16.67$$

22. (d) Original profit = Rs 60 lakhs (see above question)

Interest payment = Rs 2 lakhs

Profit after interest = Rs 58 lakhs

Profit after interest after tax = Rs 58 lakhs – 30% of Rs 58 lakhs = Rs 40.6 lakhs

In the new case, there is 20% growth in sales.

So, new profit = (Rs 200 × 1.2 lakh) – (40 lakhs + Rs 100 × 1.2 lakh) = Rs 80 lakhs

Profit after interest payment = Rs 78 lakhs

Profit after interest after tax = Rs 78 lakhs – 30% of Rs 78 lakhs = Rs 54.6 lakhs

$$\text{Percentage increase in earning} = \frac{54.6 - 40.6}{40.6} \times 100 = 34.5\% \text{ increase}$$

## PRACTICE EXERCISE 2



### Solution to Q1 and 2:

Seema is the mother of either Raju's father (Ganesh) or his mother (Pratibha). As Arun is Seema's sister, she is the maternal aunt of either Ganesh or Pratibha.

1. (c) To solve the first question of the set; as Arun is not Ganesh's aunt, Seema is not Ganesh's mother (if she were, Arun would have been Ganesh's aunt). Therefore, she is Pratibha's mother.  
So, Seema's daughter, Devaki, is Pratibha's sister. Devaki is Raju's maternal aunt.
2. (d) It is given that Arun is not Ganesh's aunt. So, she is Pratibha's aunt. This means that Pratibha is Arun's niece, and so the answer to the second question is option (d).

### Solution to Q3 to 7:

The following table and family tree can be easily made:

Person	Newspaper	Sex
E	Express	Female
A	Business Standard	Female
C	Times	Male
D	Financial Times	Male
B	Bharat Times	Female
F	Hindustan Times	Male

$$\begin{array}{l} \text{Relation} \quad (-) E \leftrightarrow D (+) \\ \qquad \qquad | \\ \qquad \qquad (-) B - (+) F - (+) C \leftrightarrow A (-) \end{array}$$

### Solution to Q8 to 11:

From statement (ii) we can see that out of the fifteen cards, nine cards can be kept easily.

Table 1

Violet Envelope	Yellow Envelope	Black Envelope
B	A	C
D	B	D
E	C	E

From (iii) and using the above table, we get

Table 2

Violet Envelope	Yellow Envelope	Black Envelope
B(2)	A	C
D(2)	B(1)	D(1)
E(1)	C	E(2)

Digits given in the brackets show the number of cards. From statement (i), it is clear that each coloured envelope contains five cards. So, there are two C-type cards in the black envelope. Therefore, the remaining one C-type card is in the yellow envelope. So, all the three A-type cards are in the yellow envelope.

### Solution to Q12 to 15:

Starting with the definite information in statements (iii) and (iv), we get the following table (say Table 1):

Table 1

Card	Colour	Picture	Position
A	Black	Queen	6
B		Prince	
C	Grey	King	2
D			
E			
F			

The cards have been assigned the positions 1 to 6 from left to right.

Using the information given in the other statements:

Palace – Blue – D (x) ....(i)

Prince – D, E (x) .... (ii)

Priest – Green, Yellow (x) .... (iii)

B – 2 or 4

From (i), (ii), (iii) and Table I, we get

Prince – Red .... (v)

From (ii), (v) and Table I, we get

Prince – Red – F .... (vi)

Using (i), (vi) and Table I, we get

Palace – Blue – E .... (vii)

Using (iv), (vi), (vii) and Table 1, and then filling up the remaining information, we get the following table:

Table 2

Card	Colour	Picture	Position
A	Black	Queen	6
B	Green/Yellow	Prince	
C	Grey	King	2
D	Yellow/Green	Joker	
E	Blue	Palace	
F	Red	Priest	

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12. (a) The vacant positions are 1, 3, 4 and 5. The given conditions require that the three consecutive cards – 3, 4 and 5 – be assigned to these. So, the joker will be at the number 1 position from the left.

##### Solution to Q16 to 18:

	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
<b>W1</b>	10 am – 2 pm	2:30 pm – 4:30 pm	10 am – 2 pm	2:30 pm – 4:30 pm	2:30 pm – 4:30 pm	
<b>W2</b>	1 pm – 3 pm	9 am – 12 noon	1 pm – 3 pm	9 am – 2 noon	9 am – noon	
<b>W3</b>	8 am – 11 am	8 am – 11 am	noon – 2 pm	8 am – 11 am	noon – 2 pm	1 pm – 3 pm

##### Solution to Q24 to 25:

<i>Drank More</i>	<i>Left Later</i>
P > W	P > V
T > P	T > P
V > T	S > T
Q > U	U > S
U > V	V > W
W > R	

Hence, the order of decreasing drink

Q – U – V – T – P – W – R

Hence, the order of leaving earlier

U – S – T – P – V – W

24. (d) Therefore, W left the earliest.

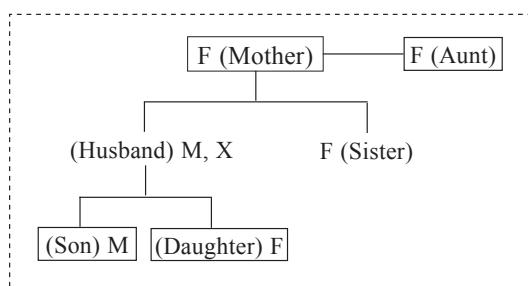
25. (b) Therefore, R drank the least.

### PRACTICE EXERCISE 3



##### Solution to Q1 to 4:

Let us first make a diagram from the given facts:



Two (husband and son) of X's six relatives are males and four are females. Since R is of the same sex as S, so both must be females, otherwise neither P nor Q could be males. The family relationship can be drawn around X like:

F – female and M – male

- (a) Since both R and S must both be females, so, S cannot be X's son.  
However, P, Q, T and U each could be X's son because any of them might be male.
- (d) The only son among the six relatives is X's son. If U were T's son, then U would also be X's son. Accordingly, T would be X's husband. However, T and U cannot both be males. Thus statement (d) is false.
- (d) If Q is U's daughter, then Q and U must either be X's daughter and husband respectively or X's sister and mother respectively. If P is X's sister, P and Q would both be females, which is impossible so option (b) must be false. Since none of the six relatives could be U's niece, so option (b) must be false. T and S would have to be X's son and sister respectively. Accordingly, U and Q would have to be X's husband and daughter but T and U cannot both be males. So, option (c) must be false. Option (d) could be true because U would be X's mother, S would be U's sister and Q would be X's sister.
- (b) If P is T's sister, then P and T must either be X's daughter and son respectively or X's mother and aunt (in either order). But P, T and U cannot all three be females, so U cannot be X's daughter.

##### Solution to Q5 to 9:

O	Supports Finance
Q	Coordinates Operations
N	Supports Operations
P	Supports Operations

<i>Professor</i>	<i>Coordinator</i>	<i>Support</i>
L		
M		
N		Operations
O		Finance
P		Operations
Q	Operations	

P and Q have Marketing as one of their subjects

<i>Professor</i>	<i>Coordinator</i>	<i>Support</i>
L		
M		

<b>Professor</b>	<b>Coordinator</b>	<b>Support</b>
N		Operations
O		Finance
P		Operations
Q	Operations	

P and Q have marketing as one of their subjects

<b>Professor</b>	<b>Coordinator</b>	<b>Support</b>
L		
M		
N		Operations
O	IT	Finance
P	Marketing	Operations
Q	Operations	Marketing

3 people coordinate Finance  
and

<b>Professor</b>	<b>Coordinator</b>	<b>Support</b>
L	Finance	
M	Finance	
N	Finance	Operations
O	IT	Finance
P	Marketing	Operations
Q	Operations	Marketing

IT is L's subject  
Strategy is supported by one of the professors.

<b>Professor</b>	<b>Coordinator</b>	<b>Support</b>
L	Finance	IT
M	Finance	Strategy
N	Finance	Operations
O	IT	Finance
P	Marketing	Operations
Q	Operations	Marketing

#### Solution to Q10 to 12:

For the sake of convenience, let us take the first letter of the names of all the children.

**Table 1**

<b>Item</b>	<b>Order</b>	<b>Performer</b>	
Song	1	B (x)	...(i)
Dance	6		...(ii)
Mimicry	$x = 3$	S	...(iii)
Speech	$(x - 1) = 2$	A (x)	...(iv)
Drama	5	E	...(v)

(order can be determined with the help of Table 2)

**Table 2**

	6	D/F (x)	...(vi)
	4	D	...(vii)

' $x = 3$ ' is known by the second last line of the given information.

**Table 3**

Story telling	4	D
Drama	5	E
Mimicry	3	S
Speech	2	B/F
Song	1	A/F
Dance	6	A/B

#### Solution to Q13 to 15:

13. (d) In any arrangement the Wind must be to the left of X-tra so, the X-tra cannot be placed in stall number 1.
14. (b) If the X-tra is placed in stall number 3, then the Wind has to be immediately to the left of X-tra. So the Wind must be placed in stall number 2.
15. (c) If the Uno is placed in stall number 5, neither the Wind nor the X-tra can be placed in stall number 6 as they must be placed next to each other. Also the Verna cannot be placed adjacent to the Uno. Hence, only the Yale can be placed in stall number 6.

#### Solution to Q16 and 17:

<b>Tie</b>	<b>Company</b>	<b>Name</b>
Brown	S	Himesh
Green	P	Lokesh
Pink	Q	Rajesh
Purple	U	Shailesh

Tie	Company	Name
Yellow	R	Nilesh
Red	T	Dinesh

**Solution to Q18 to 21:**

19. (d) No surface coloured =  $(l - 2)(b - 2)(h - 2)$   
 $3 \times 1 \times 2 = 6$
20. (b) There are three cubes on each red – green interface (barring corner cubes) So,  $4 \times 3 = 12$  cubes.
21. (d) Single coloured cube =  
 $2(l - 2)(b - 2) + 2(l - 2)(h - 2) + 2(b - 2)(h - 2) = 22$

**PRACTICE EXERCISE 4****Solution to Q1 to 4:**

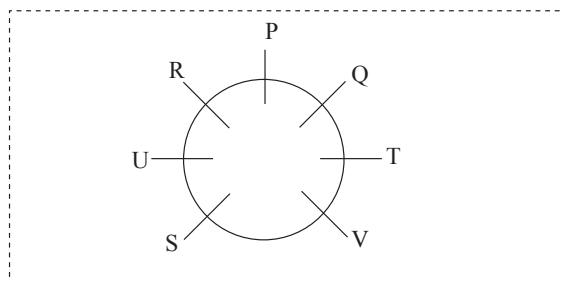
1. (b) Total number of matches =  $15 \times 6 = 90$   
Number of matches played by each team = 30. The score table given in the question considers a total of 180 matches.  
Let total number of wins = x, so total loss = x  
So, total number of draws on the score table  
 $D = 180 - 2x$   
 $D = 2(90 - x)$   
We can conclude that the number of matches drawn must be a multiple of 2, i.e., an even number and we know that the total number of matches for each team should be = 30  
Or,  $51 + P = 79 + Q$   
Or,  $P - Q = 28$   
We know that  
 $P + Q \leq 30$  and  
 $P + Q + R = 30$ .  
From the given equations, we can find the following possibilities:

P = 29	Q = 1	R = 0
P = 28	Q = 0	R = 2

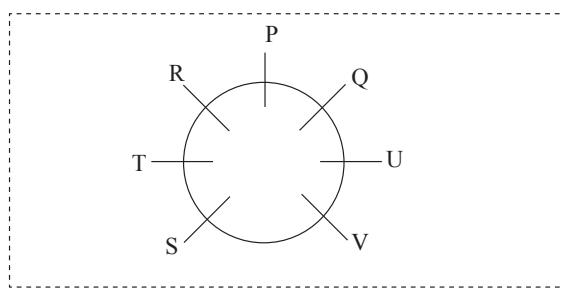
Therefore 2 W, L and D combinations were possible for the Bihar team.

2. (b) The lowest score possible was for Goa = -9  
The highest score possible was for Bihar = 144 (See question 1)  
So, the maximum possible difference = 153

3. (b) Bihar is maximum possible wins and losses were 29 and 1 respectively. It means Bihar has won all six matches against any 4 teams but it could win only 5 matches. Since Gujarat did not lose any of its 6 matches against the other teams, it is definitely not the team which lost all its matches against Bihar. Hence, it must be the team which won the match against Bihar. Therefore, Bihar lost the match against Gujarat.
4. (d) Since the scoring pattern for the wins (w), losses (l) and draws (d) of the match was not given, therefore it cannot be determined as to which team won the PHL.

**Solution to Q5 to 9:**

Case I



Case II

We cannot say that statement (iii) is wrong because case III (as shown above) makes the statement true. While case I and case II make the statement wrong. Since we are not certain about the positions of U, V and T, therefore, only statement (i) and (ii) are wrong.

**Solution to Q12 to 17:**

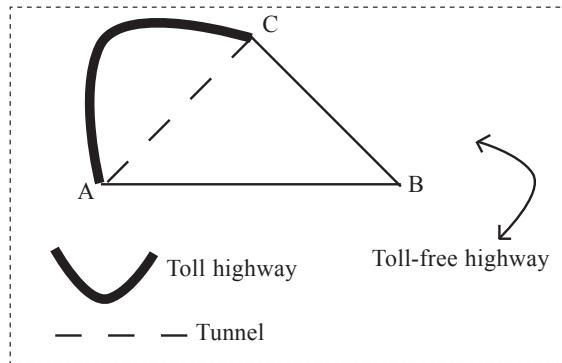
Module S001 does not have Production and module S003 does not have Marketing. But their combination gives us Marketing and Systems. Hence, 5 module S001 must have Marketing. Since modules S001 and S002 have four different specializations, there must be no common specialization and module S002 will not have Marketing but will have Production. Module S003 will have Systems included because it is not a part of module S001. So, S001 will have Finance or Personnel and it will be common to module S003.

Now, since the S001 and S004 module combination does not have Marketing as a specialization, it means that they both have Marketing as common. Since they have Finance and Personnel common, therefore module S001 has

Finance and module S004 has Personnel. Thus, module S002 also has Personnel and module S003 must also have Finance. This leaves module S005 with Production and Systems.

### Solution to Q18 to 22:

Let us first see the arrangement of cities:



18. (d) Total cost through the toll highway  
= Rs 20 + Rs 25 = Rs 45  
Total cost through tunnel  
= Rs 10 + Rs 40 = Rs 50  
Total cost through the toll-free highway = Rs 50  
Therefore the costliest way of going from city A to city C is by the tunnel or the toll-free highway.
19. (b) By using the data in the above answer we can see that the cheapest route between city A to city C is through the toll highway.
20. (c) Total cost through the toll highway  
= Rs 10 + Rs 25 = Rs 35  
Total cost through the tunnel  
= Rs 5 + Rs 40 = Rs 45  
Total cost through the toll-free highway  
= Rs 25  
Therefore the cheapest way to go from city A to city C using the CNG fuel option is through the toll-free highway.
21. (c) By using the data in the above answer we can see that the cheapest way to go to city C from city A is through the toll-free highway.
22. (a) Using the data from the solution of question 1, the difference = Rs 5. Hence, if Rs 5 is the bribe amount, then the costs will be equal.

### Solution to Q23 to 25:

Using statement (i), Chandan is not the older fighter. From statement (iii): Balraj is not the younger fighter. So, either:

Case 1. Anil is the older fighter and Chandan is the younger fighter.

Case 2. Balraj is the older fighter and Anil is the younger fighter.

Case 3. Balraj is the older fighter and Chandan is the younger fighter.

From statement (iii):

Chandan is the taller fighter for case 1 and Chandan is taller than Anil for case 3.

From statement (i):

Balraj is the shorter fighter for case 2 and Balraj is shorter than Anil for case 3.

From statement (i) and (iii):

Chandan is taller than Balraj for Case 3.

Summarizing the whole discussion we get the following:

	<i>Older fighter</i>	<i>Younger fighter</i>	<i>Taller fighter</i>	<i>Shorter fighter</i>
Case 1	Anil	Chandan	Chandan	Anil
Case 2	Balraj	Anil	Anil	Balraj
Case 3	Balraj	Chandan	Chandan	Balraj

From statement (ii):

Anil is not the shorter fighter; so case 1 is eliminated.

From statement (ii):

Balraj cannot be both older and shorter than Chandan, so case 3 is eliminated. Then case 2 is the correct one and Chandan is not fighting.

Then, from statement (ii): Balraj is younger than Chandan (so Chandan is the eldest out of the three and Anil is the youngest) and, from statement (iii): Anil is taller than Chandan (so Anil is the tallest out of the three).

## ► PRACTICE EXERCISE 5



### Solution to Q1 to 4:

- (b) Condition (ii) says Sohail lost all 3 games, hence, his score should be 0-3.
- (a) The highest score could be that of Shahrukh or Salman. However, Salman is at the winning table 4, hence option (a) is the correct answer.
- (a) As the sum of rows, columns and diagonals are equal, we can fill in the blanks in terms of "x and y" as below:

<i>y</i>	<i>x</i>	<i>y - 2</i>
<i>y - 1</i>	<i>y + 1</i>	<i>x - 2</i>
<i>x - 1</i>	<i>y - 3</i>	<i>y + 2</i>

Further  $(y + x + y - 2) = y - 2 + x - 2 + y + 2$

Hence,  $x = y + 5$

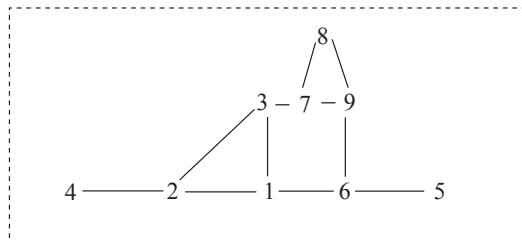
So, if  $x = 10$ ;  $y = 5$

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6. (b) From Q. 5; we have one equation  
 $x = y + 5$  and as sum of a row (= sum of column  
= sum of diagonal) is given 21; then  
 $x + 2y = 23$   
Solving these two equations we get,  
 $y = 6$  and  $x = 11$

#### Solution to Q7 and 8:

The diagram of the given arrangement can be shown as follows:



7. (d) By observing the diagram we can say that the maximum number of shops a person can visit without visiting any shop more than once is 8.  
Hence, option (d) is the answer.
8. (c) By observing the diagram we can say that option (c) must be false, which is the correct answer.

#### Solution to Q9 to 11:

The information that we have from the question is:

Q, U and R are finance companies

Now the 1st day is Sunday and the 7th day would be Saturday

S is a manufacturing company

R is scheduled on 3rd day of the week

S cannot be scheduled on 6th day of the week

T can be scheduled on any day of the week except on a Saturday.

9. (c) If P is scheduled on Wednesday and R is on the third day of the week then the possible arrangements are

1(Sun)	2(Mon)	3	4	5	6	7(Sat)
Q/U	U/Q	R	P	S	T	V

or,

1(Sun)	2(Mon)	3	4	5	6	7(Sat)
Q/U	U/Q	R	P	T/V	V/T	S

Now look at the answer options. The condition which has to be true is that T has to be scheduled on either Thursday or Friday.

Hence, option (c) is the answer.

10. (d) If S is scheduled on Monday then possible arrangements are:

1(Sun)	2(Mon)	3	4	5	6(xS)	7(Sat)(xT)
P/V	S	R	Q/U	U/Q	T	V/P
T	S	R	O/U	U/O	P/V	V/P

Now look at the answer options to be definitely false.

- (a) P and T can be sales companies when V and S are manufacturing companies and Q and U and are finance companies. So it is not false.
- (b) Maximum number of days between the schedules of T and U is 3. This is also possible when U is on the 5th day and T is on the 1st day. So this case is not definitely false
- (c) R is always scheduled before Q is definitely true as the arrangement can be either RUQ or RQU.
- (d) This statement is false as only two cases are possible. The possible arrangements are:

1(Sun)	2	3	4	5	6(xS)	7(Sat)	(xT)
P	S	R	O/U	U/O	T	V	

i.e., 2 only.

11. (d) Look at schedule IV. Since T is a sales company and S is a manufacturing company they cannot be together as the same category companies have to be scheduled consecutively. So except for schedule IV all the combinations are possible.

Hence, option (d) is the answer.

12. (d) Let us see the diagram:

Monday	Tuesday	Wednesday	Thursday	Friday
U	Z			W

Now, there are three days and three boxes to be delivered.

Both X and T cannot be delivered on Monday [(condition (i) and condition (ii) given in the question)]. So, U has to be delivered on Monday.

Let us see the diagram now:

Monday	Tuesday	Wednesday	Thursday	Friday
U	Z			W

Box T and box X can interchangeably be delivered on either Tuesday or Wednesday.

Go through the options now.

Hence, option (d) is the answer.

**Solution to Q13 to 17:**

Based on observation (i) and (ii), we can say that the three dice with the same number either show 1 or 2 or 3.

13. (b)  $2 + 2 + 2 + 6 + 5 + 4 = 21$
14. (d)  $3 + 3 + 3 + 6 + 2 + 5 = 22$
15. (a)  $5 + 5 + 5 + 6 + 5 + 5 = 31$
16. (c) 2 because one dice shows 6, one shows 1 and three are  $\leq 3$ . Hence, only one more can be  $> 4$ .
17. (c) One dice should show 6. But there cannot be more than three dice showing 4 or more than 4. The maximum number that the three dice can show is 3.

**Solution to Q18 to 21:**

18. (c) Note that all the options except (c) violate some condition or the other.
19. (a) If  $B + G = \text{Rs } 3.5$  lakhs, and  $E = \text{Rs } 2$  lakhs which leaves D to get the maximum.
20. (d) If E is minimum and A and C are also minimum, then A and E are farthest apart.
21. (b)  $A + D = G$ ; and  $E = \text{Rs } 2$  lakhs,  $D = \text{Rs } 3$  lakhs, this leaves B and F together to win 3.5 lakhs.

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# 3

## Advanced Exercises

### ➤ PRACTICE EXERCISE 1

**Directions for questions 1 to 4:** Read the following passage and solve the questions based on it.

The Hotel Leela in Goa has two wings, the East wing and the West wing. Some East wing rooms, but not all, have an ocean view. All the West wing rooms have a harbor view. The charges for all the rooms are the same, except:

- (i) There is an extra charge for all harbour view rooms on or above the third floor.
- (ii) There is an extra charge for all ocean view rooms, except those without a balcony.
- (iii) Some harbour view rooms on the first two floors and some East wing rooms without an ocean view have kitchen facilities, for which there is an extra charge.
- (iv) Only the ocean view and the harbour view rooms have balconies.

Q 1. A guest can avoid an extra charge by requesting:

- (a) a West wing room on one of the first two floors.
- (b) a West wing room on the fourth floor without a balcony.
- (c) an East wing room without an ocean view.
- (d) an East wing room without a balcony.

Q 2. Which of the following must be true if all the conditions are as stated?

- (a) All rooms above the third floor involve an extra charge.
- (b) No room without an ocean or a harbour view or kitchen facilities involves an extra charge.
- (c) There is no extra charge for any East wing room without an ocean view.
- (d) There is no extra charge for any room without kitchen facilities.

Q 3. Which of the following must be false if all the conditions are applied?

- (a) Some ocean view rooms do not involve an extra charge.
- (b) All rooms with kitchen facilities involve an extra charge.
- (c) Some West wing rooms above the second floor do not involve an extra charge.
- (d) Some harbour view rooms do not involve an extra charge.

Q 4. Which of the following cannot be determined on the basis of the information given?

- I. Whether there are any rooms without a balcony for which an extra charge is imposed.
  - II. Whether any room without a kitchen or a view involves an extra charge.
  - III. Whether two extra charges are imposed for any room.
- (a) I only
  - (b) II only
  - (c) I and III only
  - (d) II and III only

**Directions for questions 5 to 6:** Read the following passage and solve the questions based on it.

Eight sets A, B, C, D, E, F, G and H are such that

- (i) A is a superset of B, but a subset of C
- (ii) B is a subset of D, but a superset of E
- (iii) F is a subset of A, but a superset of B
- (iv) G is a superset of D, but a subset of F
- (v) H is a subset of B

$N(A)$ ,  $N(B)$ ,  $N(C)$ ,  $N(D)$ ,  $N(E)$ ,  $N(F)$ ,  $N(G)$  and  $N(H)$  are the number of elements in the sets A, B, C, D, E, F, G and H respectively.

Q 5. Which one of the following could be false, but not necessarily false?

- (a) E is a subset of D
- (b) E is a subset of C

- (c) E is a subset of A  
 (d) E is a subset of H

Q 6. If P is a new set and it is a superset of A and  $N(P)$  is the number of elements in P; then which of the following must be true?

- (a)  $N(G)$  is smaller than only four numbers
  - (b)  $N(C)$  is the greatest
  - (c)  $N(B)$  is the smallest
  - (d)  $N(P)$  is the greatest

**Directions for questions 7 to 13:** Read the following passage and solve the questions based on it.

The only people to attend a conference were four ship captains and their first assistants. The captains were L, M, N and O; the first assistants were A, D and G. Each person in turn delivered a report as follows:

- (i) Each of the first assistants delivered his report exactly after his or her captain.
  - (ii) The first captain to speak was M, and captain N spoke after him.

Q 7. Among the following which is not an appropriate order of the reports delivered?

- (a) M, A, N, G, O, L, D    (b) M, D, N, G, L, O, A  
 (c) M, N, A, L, D, O, G    (d) M, N, G, D, O, L, A

Q 8. In case L speaks after A and A is the third first assistant to speak, then among the following statements which would be untrue?

- (a) O spoke immediately after G.
  - (b) the order of the first four speakers was M, G, N and D.
  - (c) O's first assistant was present.
  - (d) A was the fourth speaker after M.

Q 9. Among the following statements which statement must be true?

- (a) In case the second speaker was a captain, the seventh speaker was a first assistant.
  - (b) In case the second speaker was a first assistant, the seventh speaker was a captain.
  - (c) In case the third speaker was a first assistant, the seventh speaker was a captain.
  - (d) In case the third speaker was a captain, the seventh speaker was a first assistant.

Q 10. In case A spoke immediately after L and immediately before O; and O was not the last speaker then L spoke:



Q 11. In case G is M's first assistant, D could be the person who spoke immediately

- (a) before T      (b) before L  
 (c) before V      (d) after T

Q 12. A is the third first assistant to speak and L is the captain whose first assistant was not present. Which among the following statements must be true?

- (a) A spoke sometime before L
  - (b) D spoke sometime before O
  - (c) L spoke sometime before O
  - (d) O spoke sometime before L

Q 13. Among the following statements, which would make M, D, N, G, L, O and A the only possible sequence of speakers?

- (a) D is M's first assistant; G is N's first assistant and A is O's first assistant.
  - (b) D is M's first assistant; G is N's first assistant and A was the second person to speak after L.
  - (c) The order of the first four speakers was M, D, N and G.
  - (d) The order of the last three speakers was L, O and A.

**Directions** for questions 14 to 17: Read the following passage and solve the questions based on it.

An employee has been assigned the task of allotting offices to six of the staff members. The offices are numbered from 1 to 6. The offices are arranged in a row and a 6-foot high divider separates them from each other. Hence, voices, sounds and cigarette smoke flow easily from one office to the other.

Ms Robert needs to use the telephone quite often throughout the day. Mr Mike and Mr Brown need adjacent offices as they need to consult each other often while working. Ms Hardy is a senior employee and has to be allotted the office number 5 which has the biggest window.

Mr Donald requires silence in the offices next to his. Mr Tim, Mr Mike and Mr Donald are all smokers. Ms Hardy is allergic to tobacco smoke and consequently the offices next to her are to be occupied by non-smokers.

Unless specifically stated, all the employees maintain an atmosphere of silence during the office hours.

Q 14. Who would be the ideal candidate to occupy the office farthest from Mr Brown?

- (a) Ms Hardy      (b) Mr Mike  
 (c) Mr Tim      (d) Mr Donald

Q 15. The three employees who are smokers should be seated in which offices?

- (a) 1, 2 and 4      (b) 2, 3 and 6  
 (c) 1, 2 and 6      (d) 1, 2 and 3

Q 16. Which would be the ideal office for Mr Mike?



Q 17. In the event of what occurrence, within the period of one month since the assignment of the offices, would a request for a change in office be put forth by one or more employees?

- (a) Mr Donald quitting smoking.
  - (b) The installation of a noisy machine by Ms Hardy in her office.
  - (c) Ms Robert needing silence in the office(s) next to her own.
  - (d) Mr Tim taking over the duties formerly taken care of by Ms Robert.

**Directions** for questions 18 to 23: Read the following passage and solve the questions based on it.

Nine individuals—Z, Y, X, W, V, U, T, S and R are the only candidates who can serve on three committees—A, B and C; and each candidate can serve on only one of the committees. The following conditions are given:

- (i) Committee A should consist of exactly one member more than committee B.
  - (ii) It is possible that there are no members of committee C.
  - (iii) Z, Y and X cannot serve on committee A.
  - (iv) W, V and U cannot serve on committee B.
  - (v) T, S and R cannot serve on committee C.

Q 18. In case T and Z are the individuals serving on committee B, how many of the nine individuals should serve on committee C?



Q 19. Out of the nine individuals, the largest number that can serve together on committee C is



Q 20. In case R is the only individual serving on committee B, which among the following should serve on committee A?

- (a) W and S      (b) V and U  
 (c) V and T      (d) E and S

Q 21. In case any of the nine individuals serve on committee C, then which among the following should be the candidate to serve on committee A?



Q 22. In case T, S and X are the only individuals serving on committee B, the total members of committee C would be:



Q 23. Among the following combinations, which could constitute the membership of committee C?

- (a) Y and T      (b) X and U  
 (c) Y, X and W      (d) W, V and U

**Directions** for question 24 and 25: Read the following passage and solve the questions based on it.

Q 24. A TV programme coordinator is planning a schedule which has 8 slots numbered A to H. The programme must consist of the following: One video of Yannie, two ads, one video of Ricky Martin and four videos of Jenniferhopez, but not necessarily in the same order. Each of these must be shown only once during the program according to the following conditions:

- (i) Two ads cannot be shown continuously.
  - (ii) The programme must begin with either an ad or a video of Yannie and must end with either an ad or

a video of Yannie. If the video of Yannie is aired in slot D and if exactly two out of the four videos of Jennifer Lopez are played consecutively then the Ricky Martin video must be aired in which slot number



Q 25. The CEO of a company must appoint a committee of 5 persons from different fields to serve as committee members. He must select two MBAs from A, B and C and three Engineers from F, G and H.

- (i) Both B and H, cannot be appointed in the committee.
  - (ii) Both G and F, cannot be appointed in the committee.
  - (iii) Both E and H, cannot be appointed in the committee.

If C is not selected in the committee then any of the following could be in the committee except



➤ **PRACTICE EXERCISE 2**

**Directions** for questions 1 to 4: Read the following passage and solve the questions based on it.

Each group of questions in this section is based on a set of conditions. In while answering some questions, it may be useful to draw a rough diagram. Choose the response that most accurately and completely answers each question.

A company wants to select a team of four call center executives from its centre based in South India for a transfer to their newly set up centre in north India. The company is managed by professional managers and is very particular about human resources and Personal relations. There are seven team members of equal ability: X, Y and Z (who are senior), and A, B, C and D (who are junior). The company requires two senior executives and two junior in the team. It is necessary that all the executives in a particular team are friendly with each other, in order to maintain team spirit and avoid any personal relation problems in the new centre. The relationship between the seven executives is as follows:

- (i) Y and A are not friendly
  - (ii) Z and C are not friendly
  - (iii) A and B are not friendly

Q 1. If A is on the team, then which other executives must be on the team as well?

- (a) X, Y and D      (b) X, Z And D  
 (c) X, Z and B      (d) X, Z and C

Q 2 Which statement(s) must be false?

- Which statement(s) must be false?

  - I. Y and C are never selected together
  - II. Z and B are never selected together
  - III. Z and D are never selected together

- (a) I only      (b) I and II only  
 (c) I and III only      (d) I, II and III

Q 3. If both Y and Z are selected, which of the executives must be on the team with them?

- (a) Both C and D      (b) Only D  
 (c) Both B and A      (d) Both B and D

Q 4. Which of the following statements are true for X?

- I X must be selected as one of the senior executives on the team  
 II X must be selected, if C is selected  
 III X cannot be selected, if both A and C are rejected.  
 (a) I only      (b) II only  
 (c) II and III      (d) I, II and III

**Directions for questions 5 to 9:** Read the following passage and solve the questions based on it.

Five different kinds of sweets to be given to the children: Halwa, Burfi, Laddu, Kaala jamun, Rasgulla. The children, Joginder, Kedarnath, Girish, Trilochan and Rameshwar went to see K. C. Das, who gave sweets to each one of them as per the following details.

- (i) Kedarnath got either burfi or rasgulla.
- (ii) Trilochan did not receive laddu or kaala-jamun.
- (iii) Among the five children, one received laddu and one burfi.
- (iv) No other child received the same treat as Kedarnath.
- (v) Neither Joginder nor Girish got kaala-jamun.
- (vi) At least one child received kaala-jamun.

Q 5. What sweet did Rameshwar receive?

- (a) Halwa      (b) Burfi  
 (c) Laddu      (d) Kaala-Jamun

Q 6. If Kedarnath received Rasgulla, which of the following must be true?

- (a) If Joginder received laddu, Girish received halwa.
- (b) If Joginder received burfi, Girish received halwa.
- (c) If Joginder received halwa, Trilochan received burfi.
- (d) If Girish received laddu, Trilochan received rasgulla.

Q 7. If Trilochan received halwa, which of the following is a complete and accurate list of the children who could have also received halwa?

- (a) Joginder and Kedarnath  
 (b) Kedarnath and Girish  
 (c) Rameshwar and Girish  
 (d) Joginder and Girish

Q 8. If Kedarnath received burfi, which of the following must be false?

- (a) If Joginder received laddu, Girish received halwa.
- (b) If Joginder received halwa, Trilochan received rasgulla.
- (c) If Joginder received rasgulla, Girish received halwa.

- (d) If Girish received laddu, Trilochan received rasgulla.

Q 9. If Girish received burfi, which of the following must be false?

- (a) Joginder received laddu  
 (b) Trilochan received halwa  
 (c) Kedarnath received rasgulla  
 (d) Trilochan received rasgulla

**Directions for questions 10 to 12:** Read the following passage and solve the questions based on it.

Shiva spent 14 days exclusive of travel in a total of six cities.

Each city that he visited was in either one of the three states: Gujarat, Uttar Pradesh, Maharashtra. Each of the states has many cities. Shiva visited at least one city in each of the three states. He spent at least two days in each city. He spent the whole day in each of the cities that he visited.

Q 10. If Shiva spent exactly eight days in the various cities of Gujarat, then which one of the following cannot be true?

- (a) He visited exactly two cities in Maharashtra.
- (b) He visited exactly two cities in Uttar Pradesh.
- (c) He visited exactly two cities in Gujarat.
- (d) He visited more cities in Uttar Pradesh than in Maharashtra.

Q 11. If the city of Ahmedabad is in Gujarat and Shiva spent as many days as possible in Ahmedabad and as few days as possible in each of the other cities that he visited, then which one of the following must be true?

- (a) Shiva could not visit any other city in Gujarat.
- (b) Shiva could visit four cities in Uttar Pradesh.
- (c) Shiva could spend six days in Ahmedabad.
- (d) Shiva could not spend more than four days in Maharashtra.

Q 12. If Shiva spent three days in the cities of Uttar Pradesh and seven days in the cities of Maharashtra, then which one of the following must be false?

- (a) He visited more cities in Gujarat than in Uttar Pradesh.
- (b) He visited exactly three cities in Maharashtra.
- (c) He visited more cities in Maharashtra than in Gujarat.
- (d) He visited exactly two cities in Maharashtra.

**Directions for questions 13 to 17:** Read the following passage and solve the questions based on it.

There are six teachers, viz., A, B, C, D, E and F in a school. Each of the teachers teaches two subjects, one compulsory and one optional subject. D's optional subject was History while three of the other teachers have it as their compulsory subject. E and F have Physics as one of their subjects. F's compulsory subject is Mathematics which is an optional subject for both C and E. History and English are A's subjects but in terms of compulsory and optional subjects, they are just the reverse of D's subjects. Chemistry is an optional

subject for only one of them. The only female teacher in the school has English as her compulsory subject.

Q 13. What is C's compulsory subject?

- (a) History
- (b) Physics
- (c) Chemistry
- (d) English

Q 14. Who is the female member in the group?

- (a) A (b) B
- (c) C (d) D

Q 15. Which of the following has the same compulsory and optional subjects as F?

- (a) D (b) B
- (c) A (d) None of these

Q 16. Disregarding which is the compulsory and which is the optional subject, who has the same two subject combinations as F?

- (a) A (b) B
- (c) E (d) D

Q 17. Which of the following groups has History as their compulsory subject?

- (a) A, C, D (b) B, C, D
- (c) C, D (d) A, B, C

Q 18. Eight books are kept one over the other. Counting from the top the second, fifth and the sixth books are on plays. Two books on plays are kept between two books on compositions. One book of plays is between two books on poetry while the book kept at the top of the book of Literature is a book of composition. Which book is fourth from the top?

- (a) Plays (b) Poetry
- (c) Composition (d) Literature

**Directions for questions 19 to 21:** Read the following passage and solve the questions based on it.

The after sales service manager of White Goods Appliances Ltd is making an assignment roster for the three technician teams in the city of Indraprastha. Each team will be assigned one of the sectors of the city: sector Pratham, sector Dwitiya and sector Tritiya. Each team will consist of two out of the following technicians: Nagabhushanam, Phaneesh, Ramaswamy, Swaminathan, Tirthankar and Visheshwar. Each technician will be assigned to exactly one team. Ramaswamy, Tirthankar and Visheshwar have each completed a special electro-mechanical appliances maintenance training programme; whereas Nagabhushanam, Phaneesh and Ramaswamy each has at least five years of work experience; Swaminathan, Tirthankar and Visheshwar do not. The service manager must observe the following restrictions while making the assignment roster:

- (i) Each team must include at least one technician who has completed the special training.
- (ii) Each team must include at least one technician who has at least five years of work experience.
- (iii) Nagabhushanam must be assigned to sector Pratham or sector Dwitiya.

Q 19. If Phaneesh is assigned to sector Dwitiya, which of the following must be true?

- (a) Tirthankar is assigned to sector pratham.
- (b) Swaminathan is assigned to sector Tritiya.
- (c) Visheshwar is assigned to sector Dwitiya.
- (d) Visheshwar is assigned to sector Tritiya.

Q 20. The service manager cannot make an acceptable roster that assigns:

- (a) Phaneesh to sector Pratham and Visheshwar to sector Tritiya.
- (b) Ramaswamy to sector Pratham and Tirthankar to sector Dwitiya.
- (c) Swaminathan to sector Pratham and Nagabhushanam to sector Dwitiya.
- (d) Nagabhushanam to sector Dwitiya and Phaneesh to sector Tritiya.

Q 21. If Tirthankar is assigned to sector Tritiya, which of the following must be true?

- (a) Phaneesh is assigned to sector Pratham.
- (b) Ramaswamy is assigned to sector Dwitiya.
- (c) Tirthankar is Nagabhushanam's partner.
- (d) Nagabhushanam is Visheshwar's partner.

**Directions for questions 22 to 25:** Read the following passage and solve the questions based on it.

An inexperienced Yoga teacher, posing as an expert on yogic exercises (*asanas*) prescribed a schedule of exercises for a pupil. Choosing from exercises *Anubittasana*, *Bhujangasana*, *Chakrasana*, *Dhanurasana*, *Sukhasana*, *Tadasana*, *Ushtrasana* and *Vyagrasana*, the pupil must perform a routine of exactly five different *asanas* each day. In any day's routine, except the first day, exactly three of the exercises must be the ones that were included in the routine of the previous day, and any permissible routine must also satisfy the following conditions:

- (i) If *Anubittasana* is in routine, *Ushtrasana* cannot be done in that routine.
  - (ii) If *Bhujangasana* is in a routine, *Sukhasana* must be one of the exercises done after *Bhujangasana* in that routine.
  - (iii) If *Chakrasana* is in a routine, *Ushtrasana* must be one of the exercises done after *Chakrasana* in that routine.
  - (iv) The fifth exercise of any routine must be either *Dhanurasana* or *Tadasana*.
- Q 22. If one day's routine is *anubittasana*, *bhujangasna*, *vyagrasna*, *sukhasana* and *tadasana*, each of the following could be the next day's routine, except:
- (a) *Bhujangasna*, *Chakrasana*, *Vyagrasana*, *Sukhasana*, *Tadasana*
  - (b) *Bhujangasna*, *sukhasana*, *Ushtrasana*, *Vyagrasana*, *Dhanurasana*
  - (c) *Vyagsana*, *Sukhasana*, *Tadasana*, *Ushtrasana*, *Dhanurasana*
  - (d) *Vyagsana*, *Sukhasana*, *Dhanurasana*, *Anubittasana*, *Tadasana*

- Q 23. Which of the following is true for any permissible routine?
- Anubittasana* cannot be the third exercise
  - Bhujangasana* cannot be the third exercise
  - Chakrasana* cannot be the fourth exercise
  - Tadasana* cannot be the fourth exercise
- Q 24. If the pupil chooses *Chakrasana* and *Vyagrasana* for the first day's routine, which of the following could be the other three exercises chosen?
- Anubittasana, Sukhasana, Tadasana*
  - Bhujangasana, Dhanurasana, Ushtrasanas*
  - Bhujangasna, Sukhansana, Ushtrasana*
  - Sukhasana, Dhanusarana, Vyagrasana*
- Q 25. If *Chakrasana* is the third exercise in a routine, which of the following cannot be the second exercise?
- Bhujangasna*
  - Dhanurasna*
  - Sukhasana*
  - Tadasana*

### ➤ PRACTICE EXERCISE 3

Each group of questions in this section is based on a set of conditions. While answering some of the questions, it may be useful to draw a rough diagram. Choose the response that most accurately and completely answers each question.

**Directions for questions 1 to 5:** Read the following passage and solve the questions based on it.

Seven instructors—J, K, L, M, N, P and Q, teach management courses at a premier institute in east India. Each instructor teaches during only one term; either the first term, or the second term, or the third term. The following conditions apply:

- K teaches during the third term.
- L and M teach during the same term.
- Q teaches during either the first term or the second term.
- Exactly twice as many instructors teach during the third term as compared to the first term.
- N and Q teach during different terms.
- J and P teach during different terms.

- Q 1. Which one of the following could be an accurate matching of the instructors to their respective terms?
- M: the first term; P: the second term; Q: the first term
  - J: the third term; L: the third term; P: the third term
  - L: the first term; N: the second term; P: the third term
  - J: the first term; M: the third term; N: the second term
- Q 2. Which one of the following cannot be true?
- L teaches during the first term
  - M teaches during the second term

- M teaches during the third term
  - N teaches during the second term
- Q 3. If exactly one instructor teaches during the second term, which one of the following must be true?
- J teaches during the third term
  - L teaches during the first term
  - M teaches during the third term
  - P teaches during the second term
- Q 4. Each of the following contains a list of instructors who can all teach during the same term except
- J, K, M
  - J, L, M
  - K, L, P
  - K, P, Q
- Q 5. If more instructors teach during the second term as compared to the first term, then which one of the following instructors must teach during the second term?
- J
  - M
  - N
  - P

**Directions for questions 6 to 10:** Read the following passage and solve the questions based on it.

Sourav's Fish Salon serves a special Friday night sea-food banquet consisting of seven courses: hilsa, pomfret, Indian shrimp, rahu, kingfish, lobster, and bhetki. Diners are free to select the order of the seven courses, according to the following conditions:

- The kingfish is served sometimes after rahu.
  - Exactly one course should be served between the pomfret and the Indian shrimp.
  - The lobster is served some time before the pomfret.
  - The kingfish is either the fifth or the course to be reserved sixth. The hilsa is the second course to be served.
- Q 6. Which one of the following sequences would make for an acceptable banquet?
- Rahu, hilsa, lobster, bhetki, pomfret, kingfish, Indian shrimp
  - Rahu, hilsa, bhetki, pomfret, kingfish, Indian shrimp, lobster
  - Lobster, hilsa, pomfret, rahu, kingfish, Indian shrimp, bhetki
  - Lobster, hilsa, rahu, kingfish, pomfret, bhetki, Indian shrimp
- Q 7. If the kingfish is the fifth course served, then which one of the following must be true?
- Pomfret is the third course served
  - Indian shrimp is the fourth course served
  - Bhetki is the seventh course served
  - Lobster is the first course served
- Q 8. Which one of the following would make it possible to determine the exact order of the course?
- Pomfret is the fourth course served
  - Indian shrimp is the fifth course served
  - Kingfish is the sixth course served
  - Lobster is the first course served

Q 9. If kingfish is the sixth course served, then which one of the following cannot be true?

- (a) Rahu is the fifth course served
- (b) Indian shrimp is the seventh course served
- (c) Pomfret is the fifth course served
- (d) Lobster is the third course served

Q 10. If bhetki is the third course served, which one of the following must be true?

- (a) Pomfret is the fourth course served
- (b) Kingfish is the fifth course served
- (c) Rahu is the first course served
- (d) Indian shrimp is the seventh course served

**Directions for questions 11 to 16:** Read the following passage and solve the questions based on it.

During one week, a human resource director conducts five interviews for a new job; one interview per day, Monday through Friday. There are six candidates for the job: Ram, Shyam, Trilochan, Usha, Veena and Kishore. Not more than two candidates are interviewed more than once. Neither Shyam nor Usha nor Veena is interviewed more than once, and no other candidate is interviewed more than twice. The schedule of interviews is subject to the following conditions:

- (i) If Trilochan is interviewed, then he must be interviewed on Monday and Friday.
- (ii) If Shyam is interviewed, then Usha is also interviewed; with Shyam's interview taking place earlier than Usha's interview.
- (iii) If Ram is interviewed twice, then Ram's second interview takes place exactly two days after his first interview.
- (iv) If Veena is interviewed, then Kishore is interviewed twice; with Veena's interview taking place after Kishore's first interview and before his second interview.
- (v) If Usha is interviewed, then Ram is also interviewed; with Usha's interview taking place on a day either immediately before or immediately after a day on which Ram is interviewed.

Q 11. Which of the following could be a complete and accurate list of candidates that the human resources director interviews and the days on which those interviews take place?

- (a) Monday: Shyam; Tuesday: Usha; Wednesday: Ram; Thursday: Kishore; Friday: Ram
- (b) Monday: Shyam; Tuesday: Kishore; Wednesday: Ram; Thursday: Kishore; Friday: Usha
- (c) Monday: Trilochan; Tuesday: Ram; Wednesday: Shyam; Thursday: Ram; Friday: Trilochan
- (d) Monday: Trilochan; Tuesday: Ram; Wednesday: Kishore; Thursday: Veena; Friday: Trilochan

Q 12. If Veena is interviewed on Tuesday, then which one of the following must be true?

- (a) Trilochan is interviewed on Friday
- (b) Usha is interviewed on Thursday

- (c) Ram is not interviewed
- (d) Shyam is not interviewed

Q 13. If Kishore is not interviewed, then which one of the following must be true?

- (a) Ram is interviewed on Thursday
- (b) Shyam is interviewed on Tuesday
- (c) Trilochan is interviewed on Monday
- (d) Usha is interviewed on Wednesday

Q 14. If Shyam is interviewed, then which one of the following could be true?

- (a) Kishore is interviewed on both Tuesday and Wednesday
- (b) Usha is interviewed on Monday
- (c) Veena is interviewed on Tuesday
- (d) Shyam is interviewed on Thursday

Q 15. If neither Usha nor Trilochan are interviewed, then each of the following must be true except:

- (a) Ram is interviewed on Monday
- (b) Ram is interviewed on Thursday
- (c) Veena is interviewed on Tuesday
- (d) Kishore is interviewed on Wednesday

Q 16. If both Usha and Veena are interviewed, then which one of the following is a complete and accurate list of the days on which Kishore could be interviewed?

- (a) Monday, Friday
- (b) Tuesday, Thursday
- (c) Monday, Wednesday, Friday
- (d) Tuesday, Wednesday, Thursday

**Directions for questions 17 to 21:** Read the following passage and solve the questions based on it.

K. C. Das is preparing special for the sweet packages *Puja*. Different sweet packages are numbered 1 through 5 from left to right, and K. C. Das fills them with different sweets. Each package will contain at least one, but not more than two of the following types of sweets: *Gulabjamun*, *Kaju Barfi*, *Petha*, *Rasgulla*, *Sohan Halwa* and *Cham Cham*. Each type of sweet will be placed in at least one sweet package. These sweets will be packed either in a bucket, a carton or a tin. K. C. Das fills the package according to the following conditions:

- (i) At least two packages must contain *Rasgulla*.
- (ii) Exactly two packages must contain *Kaju Barfi*, and these packages cannot be adjacent to each other.
- (iii) Both packages that contain *Kaju Barfi* must be to the left of any package that contains *Gulabjamun*.
- (iv) Package 2, 3 and 4 cannot contain *Sohan Halwa*.
- (v) Any package that contains *Rasgulla* must be packed in a carton.
- (vi) Any package that contains *Kaju Barfi* must be packed in a bucket.
- (vii) Package 2 is packed in a carton.

- Q 17. Which one of the following cannot be true?
- Package 1 is packed in a tin
  - Package 2 contains *Cham Cham*
  - Package 3 is packed in a tin
  - Package 4 contains *Kaju Barfi*
- Q 18. If a package containing sweets packed in a tin is not adjacent to a package packed in a bucket, then which one of the following must be true?
- Package 1 contains *Petha*
  - Package 4 contains *Kaju Barfi*
  - Package 4 contain *Rasgulla*
  - Package 5 contains *Gulabjamun*
- Q 19. If *Rasgullas* are contained in the maximum number of packages, which one of the following must be true?
- Package 3 is packed in a bucket
  - Package 4 is packed in a bucket
  - A package containing *Sohan Halwa* is packed in a bucket
  - A package containing *Gulabjamun* is packed in a carton.
- Q 20. If package 4 contains *Petha* and *Cham Cham*, which one of the following pairs of sweets must be contained in the same package?
- Kaju Barfi* and *Sohan Halwa*
  - Gulabjamun* and *Petha*
  - Rasgulla* and *Cham Cham*
  - Gulabjamun* and *Sohan Halwa*
- Q 21. If package 3 is packed in a tin, which one of the following could be false?
- Package 1 contains *Sohan Halwa*
  - Package 2 contains *Rasgulla*
  - Package 3 contains *Cham Cham*
  - Package 4 is packed in a bucket

**Directions for questions 22 to 25:** Read the following passage and solve the questions based on it.

Six horses named Aparajit, Bahadur, Chetak, Dhundumar, Pakshiraj, and Vijay are entered in a race. The big starting gate is divided into exactly seven positions numbered consecutively 1 to 7. Seven jockeys, also numbered from 1 to 7 are eligible to ride the horses in the race. Each jockey's number corresponds to the numbered position on the starting gate from which that jockey, if assigned to a horse, will ride. Exactly one jockey will not be assigned to any of the horses and the starting gate position corresponding to that jockey's number will remain vacant for the race. Jockeys will be assigned horses and the horses will run from the starting gate position in accordance with the following restrictions:

- Either Aparajit or Chetak must be ridden by Jockey 1.
- Pakshiraj must be ridden by Jockey 4 or else by Jockey 5.
- Bahadur and Pakshiraj must have at least one horse separating the two of them at starting gate.

(iv) Chetak must run from a starting gate position which has a lower number than the starting gate position from which Vijay runs.

- Q 22. If the horses complete the race, from the first to the last, in exactly the order 6, 5, 4, 3, 2 and 1 (corresponding to the number of their jockeys); and if Bahadur is the horse that wins the race, then each of the following horses could have been among the top three in the race except:
- Chetak
  - Dhundumar
  - Pakshiraj
  - Vijay

- Q 23. If Jockey 5 is the one not assigned to any horse, which of the following could be true?
- Aparajit is ridden by Jockey 4
  - Vijay is ridden by Jockey 6
  - Bahadur is ridden by Jockey 6
  - Chetak is ridden by Jockey 7

- Q 24. If Dhundumar is incapable of running the race and no replacement horse is found; and if the horses that run, finish the race from the first to the last, in the order 1, 2, 4, 6 and 7 (corresponding to the numbers of their jockeys) then which of the following must have finished last in the race?
- Aparajit
  - Bahadur
  - Chetak
  - Pakshiraj

- Q 25. If Chetak runs from the starting gate position 5 and the starting gate position 6 is vacant, then which of the following must be true?
- Vijay starts from the starting gate position 2
  - Aparajit starts from the starting gate position 1
  - Pakshiraj starts from the starting gate position 3
  - Dhundumar starts from the starting gate position 3

#### ➤ PRACTICE EXERCISE 4

**Directions for questions 1 to 3:** Read the following passage and solve the questions based on it.

The National Museum Curator must group nine sculptures—Q, R, S, T, V, W, X, Y and Z in tables numbered consecutively from 1 – 12. The sculptures will be placed in three groups, each group representing a different period of the Indian civilization. The groups must be separated from each other by at least one unused table, but unused tables cannot occur within any group. Three of the sculptures are from the Indus Valley Civilization period (3000 BC–1500 BC), two are from the Mauryan period (322 BC–185 BC) and four are from the Gupta empire period (AD 320–AD 540).

The following table gives the period details of the different sculptures:

- T, V, W are all sculptures from the same period.
- R and T are sculptures from different periods.
- Q and X are the Indus Valley Civilization period sculptures.

- (iv) Y is the Mauryan period Sculpture.  
 (v) Table 5 is always empty.

- Q 1. If the sculptures are placed in a reverse chronological order by their periods, the unused table spaces could be:  
 (a) 1, 6 and 9      (b) 1, 5 and 10  
 (c) 5, 8 and 12      (d) 5, 9 and 10
- Q 2. If the Gupta Dynasty sculptures are placed on tables 1–4, which of the following cannot be true?  
 (a) X is placed on table 12  
 (b) Y is placed on table 9  
 (c) Table 8 is unused  
 (d) Q is placed on table 6
- Q 3. If the first five sculptures, in the numerical order of their tables are Q, Z, X, Y and R, which of the following must be true?  
 (a) Two unused tables separate the Harappan period and the Maurya period sculptures.  
 (b) Two unused tables separate the Mauryan period and the Gupta period sculptures.  
 (c) S is placed on table 2.  
 (d) Either table 1 or table 4 is unused.

**Directions for questions 4 to 6: Read the following passage and solve the questions based on it.**

A business school publishes three issues of their research Journal in a year. The editor decided that the upcoming three issues April, August and December would carry articles written by seven of the most reputed professors of the school. Each of the seven authors (T, U, V, W, X, Y and Z) will have at least one article published but some may have more than one article published. The following restrictions apply to the publication of the articles:

- (i) Each of the issues being prepared must contain at least two articles.
- (ii) Only these seven professors' articles can appear in the upcoming April, August and December issues.
- (iii) No author may publish in each of the two consecutively published issues or twice in the same issue.
- (iv) If an article written by T appears in an issue, then an article written by U must also appear in that issue.
- (v) If an article written by W appears in an issue, then an article written by Y must appear in the immediately preceding issue.
- (vi) An article written by Y cannot be published in an issue that contains an article written by Z.

- Q 4. If the April issue consists exclusively of articles written by T and U, then the August issue can consist exclusively of articles written by which of the following group of authors?  
 (a) V and X      (b) V and Y  
 (c) W and Z      (d) V, Y and Z

- Q 5. If the April issue consists exclusively of articles written by U, V and Z, then the August issue must contain an article written by which of the following authors?

- (a) W      (b) X  
 (c) Y      (d) Z

- Q 6. If the December issue consists exclusively of articles written by U, V and W, then the August issue must have consisted of articles written by which of the following groups of authors?  
 (a) T and Z      (b) U and Y  
 (c) X and Y      (d) X and Z

**Directions for questions 7 to 9: Read the following passage and solve the questions based on it.**

The CBI was keeping an eye on four suspected lady criminals—Meenakshi, Razia, Sharmila and Theresa while monitoring their movements in and out of a multi-storey building they discovered a pattern and made the following observations:

- (i) No suspect ever entered or left the building together with another suspect.
- (ii) Each of the suspects entered and later left the building, only once every day.
- (iii) No suspect ever left the building in the same order (first, second, third and fourth) in which she entered the building.
- (iv) Both while entering the building and leaving, Razia was always earlier than Sharmila.

- Q 7. On a certain day, the two suspects who entered the building first were also the first to leave. Then the last two suspects to enter the building could be  
 (a) Meenakshi and Razia  
 (b) Meenakshi and Theresa  
 (c) Razia and Sharmila  
 (d) Razia and Theresa

- Q 8. On a certain day, Meenakshi and Theresa were the second and the third suspected enter the building and Meenakshi also left the building before Theresa did, Then the order in which the suspects left the building, from the first to the fourth, must be  
 (a) Meenakshi, Razia, Sharmila, Theresa  
 (b) Meenakshi, Razia, Theresa, Sharmila  
 (c) Razia, Meenakshi, Sharmila, Theresa  
 (d) Razia, Sharmila, Meenakshi, Theresa

- Q 9. On a day when Razia was the second suspect to enter the building and Theresa was the third, which of the following must be true?  
 (a) Razia leaves the building first  
 (b) Meenakshi leaves the building first  
 (c) Meenakshi leaves the building third  
 (d) Theresa leaves the building second

**Directions for questions 10 to 13: Read the following passage and solve the questions based on it.**

On the occasion of the New Year celebrations, eight families went to Goa. Each member of the various families spent a particular amount during the carnival, but the total amount spent by any family was always an integer. Given below is the average amount spent by each member of the various families:

Name of the family	Average amount spent per person	Name of the family	Average amount spent per person	Name of the family	Average amount spent per person	Name of the family	Average amount spent per person
Gagan	2.125	Lapa	3.1428	Rio	2.111	Apang	3.25
Kumar	3.166	Zora	4.5	Chaman	5.20	Sarkar	4.33

- (i) The number of members in the Gagan family was four more than that of the Chaman family.  
(ii) The number of members of the Apang family was half of that of the Sarkar family.  
(iii) The number of members in the Chaman family was less than the sum of that of the Lapa and the Zora.  
(iv) Sum of the number of members of the Lapa family and the Zora family was 28.  
(v) The sum of the members of the Sarkar family and the Apang family was equal to the number of the members of the Rio family as well as the Kumar family.  
(vi) The number of persons in any family varied between 12 and 36.

Q 10. What was the total sum of the amount spent by the Lapa and the Zora families?

- (a) 1.107      (b) 2.111  
(c) 134      (d) 136

Q 11. What was the total amount spent by all the families?

- (a) 1.595      (b) 677  
(c) 744      (d) 750

Q 12. If 1/6th of the number of members of the Apang, Gagan and Kumar families were adults and the rest were children, then what was the total number of children in all the three families?

- (a) 60      (b) 70  
(c) 80      (d) 90

Q 13. What was the total number of members who visited Goa?

- (a) 210      (b) 200  
(c) 190      (d) 180

**Directions for questions 14 to 17:** Read the following passage and solve the questions based on it.

A, B, C, D and E are members of a detective agency. To maintain impersonification, they operate under the code names P, Q, R, S and T, not necessarily in the same order. Following are the details pertaining to their impersonification:

- (i) If B is R, then D is S  
(ii) If A is Q, then C is S  
(iii) If D is not T, then E is S  
(iv) A is Q if and only if B is S or P  
(v) If C is not T then, B is not P  
(vi) D is R, and E is not S if and only if B is Q  
(vii) If A is R, then C is T

Q 14. Who operates under the name of R?

- (a) A      (b) B  
(c) C      (d) D

Q 15. Who operates under the name of Q?

- (a) A      (b) D  
(c) C      (d) E

Q 16. Who operates under the name of S?

- (a) E      (b) A  
(c) C      (d) D

Q 17. Under what name does C operate?

- (a) P      (b) Q  
(c) R      (d) S

**Directions for questions 18 to 19:** Read the following passage and solve the questions based on it.

A, B, C, D and E competed at the Delhi half marathon, and ranked first through fifth.

The following is the conversation recorded after the marathon:

- A: "I was not last"  
B: "C got the bronze"  
C: "A ended behind E"  
D: "E got silver"  
E: "D did not get gold"

It is also given that the 1st, 2nd and the 3rd rankers won the Gold, Silver and the Bronze Medals respectively.

The gold and silver medalists lied, but the other three told the truth.

Q 18. Who among the following won the gold medal?

- (a) A      (b) B  
(c) E      (d) Cannot be determined

Q 19. Which of the following statements are not true?

- I. A won the bronze medal.  
II. E won the silver medal.  
III. C ended behind A, who ended behind E.  
IV. D ended behind B.  
(a) I and II  
(b) II and III  
(c) III and IV  
(d) I and IV

**Directions for questions 20 to 22:** Read the following passage and solve the questions based on it.

A professor gave five projects—1, 2, 3, 4 and 5 to five students—S, C, L, M and R as a part of the internal group assessment programme. He gave it to them at 7 pm. The following table gives the time taken by each of them in finishing the different assignments and the time at which each of them goes to sleep.

Student	Time taken to complete projects (in hours)					Time of going to sleep
	1	2	3	4	5	
S	2	5	1:5	3	5	10 pm
C	4	2	3	1	4	11 pm
L	1	3	4	2	1.5	9 pm
M	1:5	2:5	3:5	3	3	10 pm
R	5	4	3:5	2	4	12 Midnight

In case of an internal group assessment programme, all the assignments are needed to be done but not necessarily by each one of them. Hence, the group decides that each one of them will do exactly one project out of the given five projects.

Q 20. What is the least time in which the group assignment will be done?

- (a) 1:5 hours      (b) 2 hours  
(c) 2:5 hours      (d) 3 hours

Q 21. What is the cumulative time spent by all of them if they finish it in the minimum possible time?

- (a) 7:5 hours      (b) 8:5 hours  
(c) 9 hours      (d) 10 hours

Q 22. The assignment has to be finished on that particular calendar day only. What is the maximum possible time in which this assignment will be done?

- (a) 3:5 hours      (b) 4 hours  
(c) 4:5 hours      (d) 5 hours

**Directions for questions 23 to 25:** Read the following passage and solve the questions based on it.

Mohan went to the market and bought a few oranges, mangoes and bananas. He bought a total of 42 fruits. The details of the fruits purchased is as follows:

- (i) The number of bananas is less than half the number of oranges.
- (ii) The number of mangoes is more than 1/3rd the number of oranges.
- (iii) The number of mangoes is less than 3/4th the number of bananas.

Q 23. How many oranges did Mohan buy?

- (a) 17      (b) 21  
(c) 23      (d) 26

Q 24. How many bananas did Mohan buy?

- (a) 6      (b) 9  
(c) 11      (d) 13

Q 25. How many mangoes did Mohan buy?

- (a) 6      (b) 9  
(c) 8      (d) 14

# ANSWERS



## ☛ PRACTICE EXERCISE 1

Q. No.	Answer						
1	(d)	2	(b)	3	(c)	4	(a)
5	(d)	6	(d)	7	(d)	8	(d)
9	(a)	10	(c)	11	(b)	12	(d)
13	(a)	14	(d)	15	(d)	16	(a)
17	(c)	18	(b)	19	(d)	20	(d)
21	(c)	22	(a)	23	(b)	24	(b)
25	(b)						

## ☛ PRACTICE EXERCISE 2

Q. No.	Answer						
1	(b)	2	(d)	3	(d)	4	(d)
5	(d)	6	(c)	7	(d)	8	(c)
9	(d)	10	(c)	11	(b)	12	(d)
13	(d)	14	(d)	15	(d)	16	(c)
17	(d)	18	(c)	19	(b)	20	(a)
21	(d)	22	(a)	23	(c)	24	(b)
25	(d)						

## ☛ PRACTICE EXERCISE 3

Q. No.	Answer						
1	(d)	2	(a)	3	(c)	4	(d)
5	(b)	6	(a)	7	(c)	8	(b)
9	(a)	10	(d)	11	(a)	12	(d)
13	(c)	14	(a)	15	(d)	16	(c)
17	(a)	18	(c)	19	(a)	20	(a)
21	(c)	22	(a)	23	(c)	24	(a)
25	(b)						

## ☛ PRACTICE EXERCISE 4

Q. No.	Answer						
1	(c)	2	(b)	3	(d)	4	(b)
5	(c)	6	(c)	7	(b)	8	(a)
9	(a)	10	(a)	11	(a)	12	(a)
13	(d)	14	(c)	15	(b)	16	(a)
17	(c)	18	(b)	19	(a)	20	(b)
21	(b)	22	(d)	23	(c)	24	(c)
25	(c)						

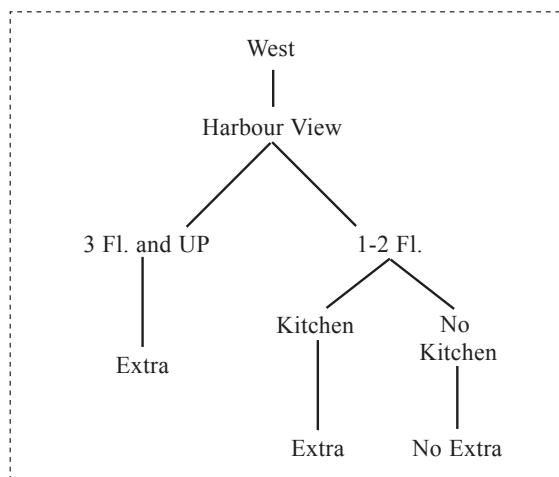
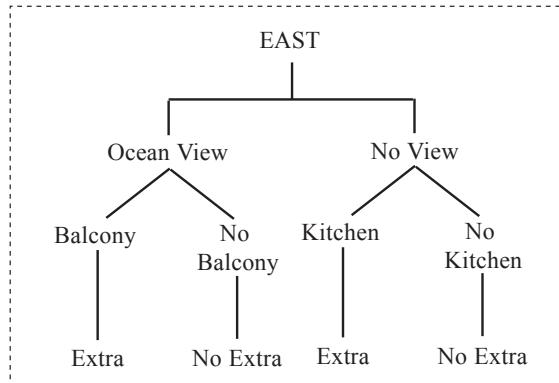
## HINTS AND EXPLANATIONS

### PRACTICE EXERCISE 1



#### Solution to Q1 to 4:

Let us have a schematic presentation of the given conditions:



1. (d) Simply read the information from the diagram. Some rooms described in options (a) and (c) have kitchen facilities; the rooms described in option (b) all involve an extra charge. Therefore only option (d) will not have an extra charge.
2. (b) The only extra charges are for an ocean view with a balcony, a harbor view, The third floor and up and the rooms with kitchen facilities, no matter where. But some ocean view rooms without a balcony and some no-view, no-kitchen East wing rooms may be above the third floor. Therefore options (a), (b) and (d) are all false.
3. (c) This directly contradicts the first extra-charge condition. The other choices are all definitely true.
4. (a) We do not know whether any West wing rooms above the second floor or with kitchen facilities have

balconies (I). But we do know that the East wing rooms without a view or a kitchen have no extra charge attached (II) and that all kitchen facilities are in rooms not otherwise subject to an extra charge (III). Therefore statement (I) is the correct answer.

#### Solution to Q5 and 6:

5. (d) Given  $B < A < C, E < B < D < G < F$   
 $B < F < A$   
 $H < B$

From this information,

$$H < B < F < A < C \quad \dots\dots(1)$$

$$(< Q, Z) \quad (A < P) \quad \dots\dots(2)$$

and  $E < B < D < G < F \quad \dots\dots(2)$

A is false from (2), B from (1), C from (1 and 2)  
D "may be" true

6. (d) Visual inspection

#### Solution to Q7 to 13:

7. (d) Reports by G followed by D cannot be in appropriate order because both are first assistants. According to the conditions given in the question, each of the first assistants delivered their report exactly after his or her captain.
8. (d) The order of delivery of the reports would be: MGNDOAL or MDNGOAL
9. (a) If the second speaker was a captain, he must be N and the first speaker was M because the first captain to speak was M and captain N spoke after him. In this case the seventh speaker was a first assistant because each of the first assistants delivered their report exactly after his or her captain.

10. (c) The order of delivery of the reports would be:

MNGLAOD or MNDLAOG

11. (b) The order of delivery of the reports would be:

MGNAODL or MGNALDO or  
MGNDOAL or MGNDLАО

12. (d) The correct order would be:  
MDNGOAL or MGNDAL or  
MDGNAL or MGODNAL

13. (a) Since O speaks immediately after L, L has no first assistant. In this case D, G and A must be first assistants of M, N and O respectively.

#### Solution to Q14 to 16:

14. (d) Mr Donald required silence in the offices next to his  
Mr Mike and Mr Brown need to consult each other

while working. So, Mr Donald should occupy the office farthest from Mr Brown.

15. (d) Ms Hardy has to be allotted the office number 5 and she is allergic to tobacco smoke, so the offices next to her are to be occupied by non-smokers. Hence, smokers should be seated in the offices 1, 2 and 3.
16. (a) Mr Mike and Mr Brown need adjacent offices. So, Mr Mike cannot be seated in the office numbers 1 and 6. Again Mr Mike cannot be seated in the office number 3.

**Solution to Q18 to 23:**

18. (b) If two individuals serve on committee B then three individuals should serve on committee A, because committee A should consist of exactly one member more than committee B. Hence, four individuals should serve on committee C.
19. (d) The minimum number of individuals on committee A and B could be 2 and 1 respectively. Hence, the largest number that can serve together on committee C is 6.
20. (d) In case R is the only individual serving on committee B then T and S should serve on committee A, because they do not serve on committee C.
22. (a) If three individuals are serving on committee B, four individuals should serve on committee A. So, the total number of members of committee C should be two. Z and Y do not serve on committee A. Hence, they work on committee C.
23. (b) Committee C cannot have three members. So, option (c) and option (d) cannot be the answers. Again T does not serve on committee C. So option (a) is also ruled out.

**PRACTICE EXERCISE 2**

1. (b) If A is on the team, Y and B cannot be selected. Hence, other members are X, Z and D because Z and C cannot be selected together.
2. (d) Y and C can be selected along with X and B or D. Z and B can be selected along with X or Y and D. Z and D can be selected along with X and Y and A or B.
3. (d) If Y and Z are selected, A and C cannot be selected. Hence, two junior members are B and D only.
4. (d) If C is selected, Z cannot be selected. Hence, X must be there as one of the two senior members.

5. (d)

	<i>Rasgulla</i>	<i>Halwa</i>	<i>Burfi</i>	<i>Laddu</i>	<i>Kaala-jamun</i>
Joginder		—			x
Kedarnath	x	—		x	x
Girish	x				x
Trilochan		x	x		
Rameshwar	x	x	x	✓	x

13. (d) We get the following table: A-H-E; B-H; C-H-M, D-E-H; E-P-M; F-M-P. Now all the questions can be answered.
14. (d) The female member is the person who teaches English.
15. (d) None of the teachers have the same compulsory and optional subjects.
16. (c) E and F have Physics and Mathematics.
17. (d) A, B and C have History as compulsory subject, from the above table.
18. (c) The books on plays are the fifth and sixth, also the other two books on plays are between the two books on composition. Hence, the book on composition is fourth from the top.

**PRACTICE EXERCISE 3**



1. (d) Note that all other choices violate some condition or the other. Only in option (d), we get

J	K	L	M	N	P	Q
1	3	3	3	2	3	1

Hence, all the conditions are fulfilled.

2. (a) If L teaches during the first term, M also teaches during the first term, which means that four teachers should teach during the third term. But in the given conditions this is not possible.
3. (c) If M = 3, L is also 3, there are two teachers for the first term and four for the third term.
4. (d) KPQ can be two only, which leaves J and N same, which is not possible.
6. (a) Note that all the choices violate some condition or the other, except (a).
7. (c) If K = 5, L = 1/3, P = 4 and S = 6. Hence, B = 7.

8. (b) If  $S = 5$ ,  $H = 2$ ,  $P$  has to be 4 and  $K = 6$ . Hence, all positions can be determined.
9. (a) If  $K = 6$ ,  $H = 2$ , then  $P$  must be 5 as there is no position left for it. Hence,  $R$  cannot be 5.
10. (d) If  $S = 7$ ,  $H = 2$ ,  $B = 3$ , then all conditions can be determined.
11. (a) Note that all conditions except the first, violate some condition or the other.
12. (d) If  $V = \text{Tuesday}$ , then  $K$  must come twice and  $S$  cannot be interviewed since  $S$ ,  $U$  and  $R$  come together and there is no place for all three.
13. (c) If  $K$  is not interviewed, then  $V$  is also not interviewed. Hence,  $T$  gets interviewed on Monday and Friday.
14. (a) If  $S$  is interviewed, then  $U$  and  $R$  must be interviewed and in the balance days  $V$ ,  $K$  and  $K$  must be interviewed. Note that all other choices violate some conditions of the other.
15. (d) If  $U$  and  $T$  are not interviewed,  $S$  is also not interviewed. So  $R$  is interviewed twice and  $K$  cannot be interviewed on Wednesday.
16. (c) We get SURVKK; Hence,  $K$  can be interviewed on Monday, Wednesday or Friday.
17. (a) Package 2 is packed in a carton, so  $KB$  is not in 2. If package 1 is in tin,  $KB$  is only in 3 or 4 and they cannot be adjacent.
18. (c) If package 4 contains  $R$ , it is in a carton, packages 3 and 1 contain  $KB$  and are in bucket. All conditions are fulfilled.
19. (a) If  $R$  is in the maximum number of packages, then  $K$  is in package 1 and 3.
20. (a) If package 4 contains  $P$  and  $C$ , then  $KB$  is in package 1 and 3, package 2 and 5 contain  $R$ , hence package 1 must contain  $SH$ .
21. (c) If package 3 is in a tin, it contains  $P$  or  $G/J$  as well.
22. (a) If  $B = 6$ , then  $P = 4$  or 5. Since  $C < V$ , then  $C$  cannot occupy 4 or 5, hence  $C$  cannot be in the top three positions.
23. (c) Since 5 is closed,  $P = 4$ . Then  $B$  must have one horse separating them, hence he must be at 6.
24. (a) We can have  $C = 1$ , then  $P = 4$  and  $B = 6$ . In this case, both  $A = 7$ .
25. (b) If  $C = 5$ ,  $A$  has to be at 1.

### PRACTICE EXERCISE 4



1. (c) The positions are: Gupta (1 – 4), vacant = 5, Maurya (6 – 7) vacant = 8, Indus (9 – 11), vacant = 12. Therefore the unused table spares are 5, 8 and 12.
2. (b)  $Y$  cannot be on table 9 as there would be no place to fix three objects.
3. (d) QZX have to be together. They can start from table 1 or 2.
4. (b)  $Y$  must be published in August, otherwise there would be no place for  $W$ . the only correct choice is option (b).
5. (c) Same as the last question.
6. (c) Since  $U$ ,  $V$  and  $W$  cannot be repeated and  $Y$  must be in the selection. Hence, option (c) is the answer.
7. (b)  $R$  cannot be later than  $S$ . Therefore only option (b) satisfies this condition.
8. (a) The order for entry is: RMTS. Then the order for leaving can only be MRST.
9. (a) The order for entry is MRTS. For leaving,  $S$  cannot be the fourth so she must be the second or the third. In that case,  $R$  must be the first.

#### **Solution to Q10 and 13:**

The total amount spent by the different families was in integers. The average amount spent by the members of the Apang family was 3.25. So the number of members of this family should be either 4 or a multiple of 4, to make the total amount spent by the family an integer. Similarly, the number of members of the Gagan family should be either 8 or a multiple of 8. The table below shows the probable number of family members:

<i>Family</i>	<i>Average expenditure of family members</i>	<i>Probable number of members</i>	<i>Exact members</i>	<i>Amount spent by the whole family</i>
Apang	$3.25 = 3 + \frac{1}{4}$	4, 8, 12, 16, 20, 24,...	12	39
Gagan	$2.125 = 2 + \frac{1}{8}$	8, 16, 24, 32,...	24	51
Kumar	$3.166 = 3 + \frac{1}{6}$	6, 12, 18, 24,...	36	114

<i>Family</i>	<i>Average expenditure of family members</i>	<i>Probable number of members</i>	<i>Exact members</i>	<i>Amount spent by the whole family</i>
Lapa	$4.1428 = 3 + \frac{1}{7}$	7, 14, 21, 28,...	14	44
Zora	$4.5 = 4 + \frac{1}{2}$	2, 4, 6, 8, 10, 12, 14...	14	63
Rio	$2.111 = 2 + \frac{1}{9}$	9, 18, 27, 36,...	36	76
Chaman	$5.20 = 5 + \frac{1}{5}$	5, 10, 15, 20, 25,...	20	104
Sarkar	$4.33 = 4 + \frac{1}{3}$	3, 6, 9, 12, 15, 18,...	24	104
		<b>Total</b>	<b>180</b>	<b>595</b>

10. (a) From the above table, it can be determined that the sum of the amount spent by both the families = 44 + 63 = 107. Hence, option (a) is the answer.
11. (a) From the table we can see that the correct answer is option (a).
12. (a) One sixth of the total members of the Apang, Gagan and Kumar families =  $(1/6)(12 + 24 + 36) = 12$ . So, the number of children =  $72 - 12 = 60$ . Hence, option (a) is the answer.

#### **Solution to Q14 to 17:**

Using (i)—If B is R, then D is S. However, we cannot conclude that if D is S, then B is R. If B is R, then D is S [from (i)]. Let us assume that B is R, then D is S. From (iii), as D is not T, E is S. But Both D and E cannot be S. So, our assumption (namely B is R) itself is not valid. Hence, we can conclude that B is not R.

Using (ii), (iv), and (v)—If B is S, then A is Q [from (iv)]. In such case, C is S [from (iii)]. Once again it is not acceptable, as B and C both cannot be S. Hence, the assumption made is invalid in this case too (that B is S). So, B is not S. If B is P, then A is Q [from (iv)]. In that case, C is S [from (ii)]. As C is not T, B is not P [from (iv)]. This contradicts the assumption that (B is P) with which we started off. So this is also invalid. Hence, B is not P.

As B is neither S nor P, we also get from (iv) that A is not Q. Looking at (iii) again we get from this that D is not S. (If D is S, D is not T and hence E is S. This is not possible, as both D and E cannot be S.)

Let us summarize the findings till now:

A	B	C	D	E
Not Q	Not R	Not S	Not S	Not P

Hence, B can only be Q or T. Now, if B is Q, D is R and E is not S [from 4].

But if D is R, E must be S, according to (iii). We cannot have a situation where one given statement is contradicted by another given statement. Hence, B cannot be Q. So, the only possibility is that B is T. So we are sure now that B is T.

Looking at (vi) again, D is R and E is not S, if and only if B is Q. Now, as B is not Q, it follows that D is not R. It also follows that E is S. If A is R, then C is T (vii) But we know that B is T, so C is not T. It follows that A is not R. Thus, A is not R, A is not Q, A is not T (as B is T), and A is not S (as E is S). Hence, A is P.

Coming to D, D is not P or S or T (as A is P, E is S and B is T). We have also seen above that D is not R. Hence, D is Q.

The person left out till now, namely C, has to be R in that case. So, A, B, C, D and E operate under the names of P, T, R, Q and S respectively.

#### **Solution to Q18 and 19:**

A could not be the 1st or 2nd, for he would be telling the truth; or the 5th, for he would be lying; so he was 3rd or 4th.

If D was telling the truth, then E would be lying. Thus D would be the 1st, and lying at the same time which is contradictory. Thus, D is lying, and he is the 1st or 2nd.

If E was lying, D would be the 1st, so E would have to be the 2nd, then D would have been telling the truth. Thus, E is the 3rd, 4th or 5th and D must be 2nd.

Now, only B or C could be the 1st. If B is not the 1st, as he could not be the 2nd, he would have to be the 4th or 5th because C would be the 3rd, but nobody would be the 1st; the only solution then is B, D, E, A and C.

# 4

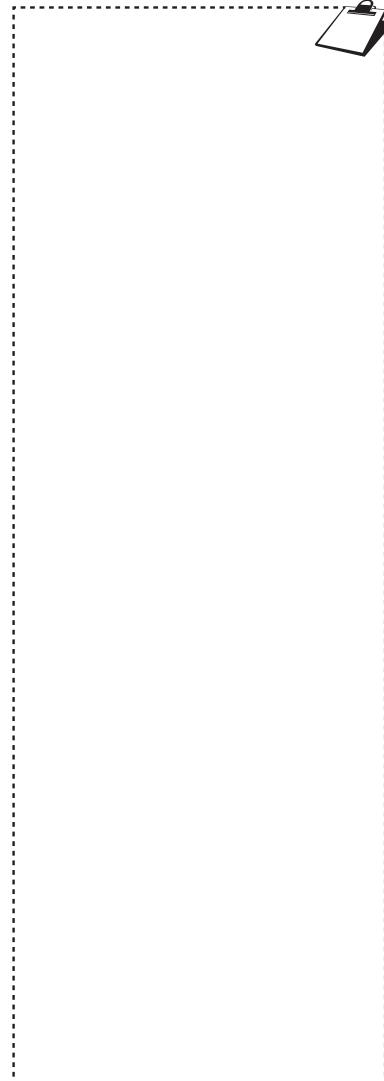
# Mastering Logical Reasoning

## ➤ PRACTICE EXERCISE 1

**Directions for questions 1 to 6:** Read the following passage and solve the questions based on it.

My brother Vinit while was planning to go home last year was confused about the clothes that he should carry with him. He had the following types of clothing: belts, hats, jackets, ties, vests, T-shirts and handkerchiefs. It was also known that he had with him several pieces of each of the seven types of clothing. Finally he set up an algorithm to decide the clothes that he would be taking along with him.

- (i) If he packed ties, then he did not pack handkerchiefs.
  - (ii) If he packed belts, then he did not pack jackets.
  - (iii) If he packed belts, then he packed at least one handkerchief.
  - (iv) If he packed jackets, then he packed at least one vest.
  - (v) If he packed vests, then he packed at least one handkerchief.
  - (vi) If he packed handkerchiefs, then he packed at least two of them.
- Q 1. Which one of the following could be a complete list of the clothing that my brother packed?
- (a) one belt, one T-shirt, one vest, two handkerchiefs
  - (b) one belt, one tie, one T-shirt, three handkerchiefs
  - (c) two belts, one ties, three T-shirts
  - (d) one jacket, one T-shirt, two vests and one handkerchief
- Q 2. If Vinit did not pack any handkerchiefs, what was the maximum number of the different types of clothing that he could pack?
- (a) 2
  - (b) 3
  - (c) 4
  - (d) 5
- Q 3. Which one of the following statements must be false?
- (a) Vinit packed exactly three items of clothing, one of which was a vest.
  - (b) Vinit packed exactly four items of clothing, one of which was a hat.
  - (c) Vinit packed exactly three items of clothing, one of which was handkerchief.
  - (d) Vinit packed exactly three items of clothing, one of which was a belt.
- Q 4. If Vinit packed as many different types of clothing as possible, then it must be true that he did not pack one of the following types of clothing.
- (a) Belts
  - (b) Hats
  - (c) Ties
  - (d) Jackets





- Q 5. If Vinit packed at least one item, find out which one of the following are the minimum and the maximum numbers of the types of clothing that he could pack?

(a) 1, 4                  (b) 1, 5  
(c) 1, 6                  (d) 2, 5

Q 6. If Vinit did not pack any vests, then it could be true that he packed one or more

(a) Ties and jackets  
(b) T-shirts and belts  
(c) Ties and belts  
(d) T-shirts and ties

**Directions for questions 7 to 9:** Read the following passage and solve the questions based on it.

The production, marketing, human resource, finance and management information system managers of a particular company meet for a round table meeting to discuss the strategy of the company. Out of the five, three are men and the other two are women. The following restrictions apply to their seating arrangement:

- (i) The two women will not be seated next to each other.  
(ii) The production manager, a man, will always be seated as far as possible from the marketing manager.  
(iii) The finance manager will always be seated next to a woman.

Q 7. If the human resource manager is a man, which of the following is definitely not true?

  - The marketing manager is sitting in between the two women.
  - The marketing manager is sitting in between two men.
  - The finance manager is a man.
  - The marketing manager is a woman

- Q 8. If the finance manager always has a woman to his right, in how many different arrangements can the marketing manager be a woman?

(a) 2                   (b) 3  
(c) 4                   (d) 5

Q 9. If the management information system manager is sitting just to the right of the production manager, which of the following statement(s) is/are definitely True?

I. The marketing manager and the finance manager sit next to each other.  
II. The human resource manager has to be a woman.  
III. The management information system manager has to be a man.

(a) I only              (b) I and II  
(c) I and III           (d) II and III

**Directions for questions 10 to 14:** Read the following passage and solve the questions based on it.

The Snehans Apartment Welfare Association offers three activities to its members skating, soft ball and steam bath. To avail all these facilities the association has made separate activity centres, one each for all the three activities. The following table gives the details pertaining to the number of different types of members, the capacity of each type of activity centre and the time that must be invested in the individual activities (if used):

	<i>In Time</i>	<i>Number of members</i>	<i>Skating</i>	<i>Soft ball</i>	<i>Steam bath</i>
Males	7:30 am	200	90 minutes	75 minutes	20 minutes
Females	8:30 am	160	60 minutes	40 minutes	15 minutes
Children	9:00 am	220	60 minutes	90 minutes	N.A
Capacity			250	120	30



All members are divided into three categories based on their age and sex as males, females and children. All members report at the In-time and all of them do skating first. Members are entitled to use the specialties via. skating, softball or steam bath according to the first-come, first-served basis and the availability of space in that particular activity centre.

For example: All males (200) whose in-time is 7:30 am are allowed to skate as the capacity of the skating centre is 250. When the females report at their in-time (8:30 am) there are only 50 places available in the skating centre. So, the rest of the 110 females wait till it becomes available.

The additional information is given as below:

- (i) No body can use the softball activity centre without going through the skating centre. If a member goes to the steam bath centre, he/she will have to go to the softball activity centre as well.
- (ii) When members report to a particular centre, it is known as the reporting time for that centre; when they are allowed to enter the centre, it is known as their entry time for that centre. The difference between the reporting time and the entry time is known as the 'waiting time' for that centre.
- (iii) 50% of the males who skate at a given time also play at the softball activity centre. Further, 50% of the males who go to the softball centre at a given time also visit the steam bath activity centre.
- (iv) 60% of the females who skate at a given time also play at the softball activity centre. Further, 50% of the females who go to the softball activity centre at a given time also visit the steam bath facility.
- (v) 50% of the children who swim at a given time also play at the soft ball centre. No child takes a steam bath.
- (vi) Members are served on the first-come, first-served basis. Further, if their reporting time at a particular centre is the same, then they are entertained on the basis of their in-time.

Q 10. What is the number of children whose waiting time is 0, before entering the softball activity centre?

- (a) 1.1
- (b) 2.6
- (c) 3.19
- (d) 4.40

Q 11. What percentage of men out of the total number of men, went through all the three centres in the minimum possible time?

- (a) 2.5%
- (b) 5%
- (c) 7.5%
- (d) 10%

Q 12. What is the difference between the number of women who took the maximum time and those who took the minimum time, respectively, for going through all the three centres?

- (a) 2
- (b) 5
- (c) 18
- (d) 23

Q 13. What is the maximum time taken by any member who went through all the three centres?

- (a) 110 minutes
- (b) 130 minutes
- (c) 150 minutes
- (d) 170 minutes

Q 14. How many children are waiting at 9 am for skating?

- (a) 90
- (b) 110
- (c) 130
- (d) 150

**Directions for questions 15 to 16:** Read the following passage and solve the questions based on it.

There are five identical looking boxes containing different objects in each of them and every box has a label indicating its contents. The following table shows the correct description of the contents and the label on each box:



<i>Contents</i>	<i>Label</i>
Two Pins	PP
Two Balls	BB
Two Clips	CC
One Pin and one Clip	PC
One Ball and one Clip	BC

- Q 15. Somebody has mischievously interchanged these labels in such a way that no box carries the correct label describing its contents.

How many of the following statement/s is/are definitely true?



**Directions for questions 17 to 22:** Read the following passage and solve the questions based on it.

Transparency International is UN watch-dog which gives ranks to all the member countries of the UN in terms of the corruption level in the government machinery. There are 190 member countries of the UN since its establishment in 1945 and all of them are awarded the ranks which are valid for a particular year. The lower the rank, the less corruption infested the country is. And the higher the rank, the more corrupt the country is.

In the following table, the ranks of ten countries for three consecutive years are given. A positive change shows that the ranking has improved over the previous year and a negative change shows that the ranking has worsened over the previous year.

<i>Rank in 2006</i>	<i>Change over 2005</i>	<i>Country</i>	<i>Change over 2004</i>
51	+3	Sri Lanka	-5
52	+4	Zambia	-3
53	+6	New Zealand	-7
54	-2	Tango	-3

(Contd)



Rank in 2006	Change over 2005	Country	Change over 2004
55	+2	Austria	-3
56	-1	Hungary	+4
57	A	Australia	D
58	B	Kenya	E
59	C	Mozambique	F
60	Zero	UAE	NA

Somehow the data for Australia, Kenya and Mozambique are missing from the table. NA indicated that the country was not in the list of the given ranks in that particular year.

Q 17. What is the minimum value of A + B + C?

- (a) 11                   (b) 12  
 (c) 13                   (d) 14

Q 18. What is the maximum value of D + E + F?

- (a) 14                   (b) 15  
 (c) 16                   (d) 17

Q 19. What is the minimum value of D + E + F?

- (a) 8                   (b) 9  
 (c) 10                  (d) 11

Q 20. How many countries from the given countries in the table have definitely improved their ranking consistently every year during the given period?

- (a) 1                   (b) 2  
 (c) 3                   (d) Cannot be determined

Q 21. What can be the minimum change in the rank of any country in 2006 with respect to its rank in 2004?

- (a) 0                   (b) 1  
 (c) 2                   (d) 3

Q 22. For how many countries is it possible to have the same ranks in all the three years?

- (a) 0                   (b) 1  
 (c) 2                   (d) 3

**Directions for questions 23 to 25:** Read the passage below and solve the questions based on it.

Five friends—Amar, Binit, Charu, Deeksha, Eshwar, went to a fair. At a shooting stall there are three things to be shot—balloons, coins and needles. The number of balloons shot are 1, 4, 5, 6 and 8, while the number of coins shot are 0, 1, 2, 4 and 6. Following details are available:

- (i) The number of coins shot by Amar is three times the number of coins shot by the person who shot 4 balloons.
- (ii) Three persons including the one who shot four coins, did not shoot any needle.
- (iii) Binit did not shoot any needle.
- (iv) The one who shot one balloon did not shoot any needle or coin. It is also known that he was not Charu.
- (v) Deeksha shot balloons and coins but no needle.
- (vi) Charu shot half as many coins as the person who shot twice as many balloons as he did.
- (vii) Eshwar shot two more balloons than Amar, but Amar shot two more coins than Eshwar.



- Q 23. Which of the following is true?
- Charu shot 8 balloons and 4 coins but no needle.
  - The person who shot 5 balloons and one coin did not shoot any needle.
  - The person who shot an equal number of balloons and coins also shot needles.
  - The person who shot 4 balloons and 2 coins also shot needles.
- Q 24. Who shot an equal number of coins and balloons?
- Amar
  - Binit
  - Charu
  - Deeksha
- Q 25. Which of the following is true?
- Deeksha shot 5 balloons
  - Amar shot 8 balloons
  - Eshwar shot 1 balloon
  - Eshwar shot 6 balloons

## ➤ PRACTICE EXERCISE 2

**Directions for questions 1 to 6:** Read the following passage and solve the questions based on it.

Looking upon the influx of high profile and sensitive cases in the Supreme Court. The CJI has decided that each case will be heard on a day to day basis by making a group of judges out of seven senior judges—Bindra, Goel, Kalyan, Mahajan, Deshbandhu, Raheja and Sinha. However all the judges need to serve on the panels collectively. They can serve either alone or in groups together, consistent with the following conditions:

- Bindra serves on every panel that Kalyan serves on.
  - Kalyan serves on every panel that Sinha serves on.
  - Mahajan serves on every panel that Raheja does not serve on.
  - If Bindra serves on a panel then neither Goel nor Mahajan serve on that panel.
- Q 1. Which one of the following could be a complete list of the judges who serve together on one panel?
- Goel, Kalyan, Raheja, Sinha
  - Goel, Mahajan, Deshbandhu, Raheja
  - Bindra, Kalyan, Mahajan, Deshbandhu
  - Bindra, Deshbandhu, Raheja, Sinha
- Q 2. What is the maximum number of judges who could serve on a panel that Raheja does not serve on?
- 2
  - 3
  - 4
  - 5
- Q 3. If exactly three judges serve together on a panel, then each of the following must be true except
- Bindra and Kalyan both serve on the panel.
  - Raheja and Deshbandhu both serve on the panel.
  - Deshbandhu and Mahajan both serve on the panel.
  - Kalyan and Deshbandhu both serve on the panel.
- Q 4. If Sinha and Deshbandhu serve together on a panel, then exactly what would be the size of the panel?
- 1
  - 2
  - 3
  - 5
- Q 5. If Goel and Deshbandhu serve on a panel together, then which one of the following must be true?
- Sinha does not serve on the panel
  - Bindra also serves on the panel






**Directions for questions 7 to 11:** Read the following passage and solve the questions based on it.

There are seven friends—A, B, C, D, E, G and H at a B-school. They specialize in exactly one of the two areas: Marketing or Systems. The students choose their specialization in accordance with the following:

- (i) If D specializes in Systems then B specializes in Marketing.
  - (ii) If E specializes in Systems then H and A both specialize in Marketing.
  - (iii) G does not choose the same specialization as D.
  - (iv) If C specializes in Systems, then B also specializes in Systems.

- Q 7. Which one of the following could be a complete and accurate list of students who specialize in Systems?

  - (a) D, E, C
  - (b) H, A, G
  - (c) B, H, C
  - (d) D, B, H, G

- Q 8. If D specializes in Marketing then which one of the following must be true?

  - (a) E specializes in Marketing
  - (b) G specializes in Marketing
  - (c) B specializes in Systems
  - (d) C specializes in Systems

- Q 9. If H and G both specialize in Systems, then which one of the following could be true?

  - (a) E and A both specialize in Marketing
  - (b) C and A both specialize in Systems
  - (c) D and A both specialize in Marketing
  - (d) B and C both specialize in Systems



- Q 11. Which one of the following is a pair of friends who cannot specialize in Marketing together?

  - (a) H and G
  - (b) D and B
  - (c) D and G
  - (d) B and G

**Directions for questions 12 to 15:** Read the following passage and solve the questions based on it.

King Amitabh of Bollysteel organized initials to decide the groom for his daughter in two steps—The preliminary stage and the final stage. The preliminary stage comprised of a written test whereas in the final stage there was an archery competition. The archery competition consisted of five rounds wherein the contestants could score from 2 to 9 points in each round. The prince who scored the maximum points in these five rounds would be considered the winner in the overall standing and would marry the princess.

When the results of the preliminary stage were announced, it was found that only five princes—Shikari, Bhikhari, Atyachari, Juari and Hazari, qualified the preliminary stage and hence these were the only contestants left to complete in the final stage.

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During the final stage, however, the initials who was tabulating the scores of the princes started taking sporadic short naps and so at the end, when King Amitabh asked for the score-card to find out the final winner, he was presented the following Table:



	<i>1st Round</i>	<i>2nd Round</i>	<i>3rd Round</i>	<i>4th Round</i>	<i>5th Round</i>
Shikari	9		8		3
Bhikhari		2	3		
Atyachari	2	9	4	8	
Juari	4	6		5	8
Hazari		3			9

However, the initials has made the following observations too:

- (i) No two princes had scored equally in any round.
- (ii) The difference between the total points scored by Prince Shikari and Prince Juari was 6 points.
- (iii) Prince Bhikhari's total points were always greater than that of Prince Atyachari's total points.
- (iv) Prince Shikari scored an even number of points both in the 2nd and the 4th rounds.
- (v) Each of the five princes scored greater than or equal to 24 points in the five rounds.
- (vi) There was tie between any two princes in their overall points.

Q 12. Prince Juari won the competition and married the Princess. Also, Prince Bhikhari scored 28 points from the five rounds. Then which of the following could be false?

- (a) Prince Atyachari scores more points than Prince Hazari in round 4.
- (b) Prince Shikari scores more points than Prince Hazari in round 2.
- (c) Prince Bhikhari scores more points than Prince Hazari in round 1.
- (d) Prince Juari scores more than Prince Shikari in round 3.

Q 13. If Prince Juari scores 5 points in the 3rd round and Prince Atyachari scores 4 points in the 5th round, then which of the following will definitely be false?

- (a) Prince Shikari is 1st in the overall standing.
- (b) Prince Hazari is 2nd in the overall standing.
- (c) Prince Atyachari is 3rd in the overall standing.
- (d) Prince Juari is 4th in the overall standing.

Q 14. If Prince Hazari scores 2 points in the 3rd round. Then, which of the following statements is sufficient to decide the winner?

- I. Prince Atyachari scores the maximum possible points in the 5th round.
- II. Prince Juari scores the maximum possible points in the 3rd round.
- (a) Only I
- (b) Only II
- (c) Both I and II
- (d) Even I and II together are not sufficient to decide the winner.

Q 15. If Prince Atyachari scores 5 points in the 5th Round but Prince Hazari becomes the winner with the least possible total points, then what is the least possible points scored by Prince Hazari in the 3rd round?

- (a) 5
- (b) 6
- (c) 7
- (d) 8



**Directions for questions 16 to 17:** Read the following passage and solve the questions based on it.

There are seven persons—I, J, K, L, M, N and O in a family. They have one set each of the following three games—cards, baseball and tag.

Following are the details pertaining to the games that they play among themselves:

- (i) Each person must play exactly two out of the three games.
- (ii) I must play cards.
- (iii) K must play tag.
- (iv) N must play baseball.
- (v) M must play both games which I plays.
- (vi) O must play both games which L plays.
- (vi) Cards must be played by either 3 or 4 persons
- (vii) Baseball must be played by either 4 or 6 persons
- (ix) Tag can be played by any number of persons as long as there are a minimum of 2 persons.

Q 16. If K plays the same two games as N plays, then which of the following is not true?

- (a) I plays cards
- (b) N plays cards
- (c) K plays baseball
- (d) N plays tag
- (d) None of these

Q 17. If I and N play tag and four persons play cards, then the persons playing cards besides I and M are necessarily one of the following options.

- (a) J and K
- (b) J and N
- (c) K and N
- (d) K and O

**Directions for questions 18 to 20:** Read the following passage and solve the questions based on it.

- (i) In a newly constructed market, six shops on a floor in two rows facing North and South are allotted to U, V, W, X, Y and Z, not necessarily in that order. The number of shops in both the rows are equal in number.
- (ii) V gets a North-facing shop and is not next to X.
- (iii) W, which is next to Z gets a South-facing shop and Y gets a North-facing shop.

Q 18. If X and Z get diagonally opposite shops and both these shops can never be at the extremes, then in how many ways can the be allotments of the shops done?

- (a) 2
- (b) 4
- (c) 6
- (d) 8

Q 19. In the above question, whose shop is between V and X?

- (a) Z
- (b) Y
- (c) W
- (d) U

Q 20. In Q 18, the shops of which other pairs, apart from X and Z are diagonally opposite to each other?

- (a) U and Y
- (b) V and U
- (c) V and W
- (d) Y and X

**Directions for questions 21 to 25:** Read the following passage and solve the questions based on it.

During the Doha Asian Games 2006, the following teams played in the soccer event—Afghanistan, Nepal, Pakistan, India, South Korea and Bangladesh. In the event, each team played with every other team exactly once.



The following was the scoring pattern of the event:

- (i) Each win gave three points to the winning team.
  - (ii) Each draw gave one point to each of the teams.
  - (iii) There was no point for a loss.

Following was the table of the points at the end of all the matches in the soccer event. The table showed the ranks of the teams in terms of points scored by them in the decreasing order of their total points.

Some information had been deliberately kept on hold due to certain reasons which were not to be made public. Even the results of the matches were not declared.

However, on public demand the result of only one match, which was played between India and Pakistan, was declared. It was announced that Pakistan had beaten India.

It was also given that no two teams finished with the same number of points.

For the sake of convenience, all the teams were denoted by their initials only.

Table

<b>Position</b>	<b>Team</b>	<b>Won</b>	<b>Drawn</b>	<b>Lost</b>	<b>Goals For</b>	<b>Goals Against</b>	<b>Total points</b>
1	A				17	5	15
2	N				9	6	10
3	P					2	8
4	I				2	5	
5	S K				7	11	2
6	B				8	16	

Q 21. Which of the following matches was a draw?



Q 22 What was the total number of points scored by J?



Q 23. Find the total number of goals scored in the match between N and P



Q24 The number of goals scored by A against I could be at the most

- The number of goals scored

Q.25 For how many teams could we determine the total points?



### ➤ PRACTICE EXERCISE 3

**Directions** for questions 1 to 6: Read the following passage and solve the questions based on it.

- (i) Six businessmen from six different nations are staying in six successive in a hotel.
  - (ii) Each of them owns a number of cars and has donated to a number of institutions last year.
  - (iii) The businessman in room number 102 owns twice as many cars as the businessman who donated to 8 institutions last year.



- (iv) The businessman from Uruguay and the businessman in room number 106 together own a total of 40 cars.
- (v) The businessman from Argentina owns 8 cars less than the businessman from England but donated to 10 more institutions last year.
- (vi) Four times the number of cars owned by the businessman in room number 104 is lesser than the number of institutions to which he donated last year.
- (vii) The businessman in room number 103 owns 12 cars and donated to 8 institutions last year.
- (viii) The businessman who owns 16 cars donated to 24 institutions last year.
- (ix) The businessman in room number 105 owns 8 cars and donated to 2 institutions less than the businessman from Canada last year.
- (x) The Brazilian businessman is staying two rooms ahead of the English businessman who is staying two rooms ahead of the Canadian businessman.

Q 1. In which room is the Brazilian businessman staying?

- (a) Room number 102
- (b) Room number 103
- (c) Room number 104
- (d) Room number 105

Q 2. How many institutions did the Argentinean businessman donate to last year?

- (a) 8
- (b) 3
- (c) 18
- (d) 24

Q 3. The businessman of which country is staying in room number 106?

- (a) Argentina
- (b) Canada
- (c) Uruguay
- (d) Germany

Q 4. The businessman of which country donated to 24 institutions last year?

- (a) Argentina
- (b) Uruguay
- (c) Canada
- (d) Germany

Q 5. The businessman of which country owns the maximum cars?

- (a) Argentina
- (b) Uruguay
- (c) Germany
- (d) Brazil

Q 6. How many cars does the English businessman own?

- (a) 8
- (b) 12
- (c) 4
- (d) 20

**Directions for questions 7 to 11:** Read the following passage and solve the questions based on it.

The table below represents the average price of all the cars sold in a particular year from the year 2000-2004.

**Table 1**

Year	2000	2001	2002	2003	2004
Average price (Rs in thousand)	30	40	P	30	50

**Table 2**

Years	Number of cars sold
Total number of cars sold in 2000 + 2001	A
Total number of cars sold in 2001 + 2002	B
Total number of cars sold in 2002 + 2003	C
Total number of cars sold in 2003 + 2004	D
Total number of cars sold in 2004 + 2000	E



- Q 7. (I) If the value of  $P = 40$ , then only table 1 is sufficient to find the average price of all the cars sold in 2002.  
(II) If the value of  $P$  is not given, then whatever is the value of A, B, C, D and E, the average price of all the cars sold in 2002 cannot be calculated.

(a) Only I is true  
(b) Only II is true  
(c) Both I and II are true  
(d) None of the two is true

Q 8. (I) If the value of  $P = 40$ , then in 2002 no car has been sold.  
(II) If the value of  $P$  is given and it is not equal to 40, then the value of any three out of A, B, C, D and E is sufficient to find the value of the average price of all the cars sold in 2002.

(a) Only I is true  
(b) Only II is true  
(c) Both I and II are true  
(d) None of the two is true

Q 9. To find out the total number of cars sold in 2002 and 2003, we need the following:  
(a) Only the value of  $P$   
(b) Value of P, A, B, C and D  
(c) Value of P, A, B, C, D and E  
(d) Cannot be determined

**(Additional information for questions 10 to 11: Disregard table 2 for both the questions).**

- Q 10. For what value of P, will the total number of cars sold in all the years be the least?

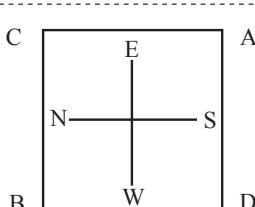
  - (a)  $P = 30$
  - (b)  $P > 40$
  - (c)  $P = 40$
  - (d) Cannot be determined uniquely

Q 11. It is given that in one particular year no car is sold. Which of the following is most likely to be that year?

  - (a) 2000
  - (b) 2001
  - (c) 2003
  - (d) 2004

**Directions for questions 12 to 14:** Read the following passage and solve the questions based on it.

The following questions are based on the diagram given below, showing four persons—A, B, C and D stationed at the four corners of a square piece of plot as shown:



E = East S = South W = West and N = North

- Q 12. From the original position, B and D move one and a half lengths of sides clockwise and anti-clockwise respectively. Which one of the following statements is true?

  - (a) B and D are both at the mid-point between A and C.
  - (b) D is at the mid-point between A and C; and B is at the corner originally occupied by C.
  - (c) B is at the mid-point between A and C; and D is at the corner originally occupied by A.
  - (d) B and D are both at the mid-point between A and D.



Q 13. From the positions in the original figure, C and A move diagonally to the opposite corners and then one side each clockwise and anti-clockwise respectively. Where is A now?

- (a) At the north-west corner
- (b) At the north-east corner
- (c) At the south-east corner
- (d) At the south-west corner

Q 14. From the positions in the original figure, C and A move diagonally to the opposite corners and then one side each clockwise and anti-clockwise respectively. B and D move two sides each clockwise and anti-clockwise respectively. Who is now at the north-west corner?

- (a) A
- (b) B
- (c) C
- (d) D

**Directions for questions 15 to 19:** Read the following passage and solve the questions based on it.

All the roads of a city are straight and perpendicular or parallel to each other. Roads A, B, C, D and E are parallel to one another. Roads G, H, I, J, K, L and M are parallel to one another.

- (i) Road A is 1 km east of road B
- (ii) Road B is 0.5 km west of road C
- (iii) Road D is 1 km west of road E
- (iv) Road G is 0.5 km south of road H
- (v) Road I is 1 km north of road J
- (vi) Road K is 0.5 km north of road L
- (vii) Road K is 1 km south of road M

Q 15. Which is essentially true?

- (a) E and B intersect
- (b) D is 2 km west of B
- (c) D is at least 2 km west of A
- (d) M is 1.5 km north of L

Q 16. If E is between B and C, then which of the following is false?

- (a) D is 2 km west of A
- (b) C is less than 1.5 km from D
- (c) E is less than 1 km from A
- (d) D is less than 1 km from B

Q 17. If road E is between B and C, then the distance between A and D is

- (a) 0.5 km
- (b) 1 km
- (c) 1.5 km
- (d) 2 km

Q 18. Which of the following possibilities would make two roads coincide?

- (a) L is 0.5 km north of I
- (b) C is 1 km west of D
- (c) D is 0.5 km east of A
- (d) E and B are 0.5 km apart

Q 19. If K is parallel to I and K is 0.5 km south of J and 1 km north of G, then which two roads would be 0.5 km apart?

- (a) I and K
- (b) J and K
- (c) J and H
- (d) G and J

**Directions for questions 20 to 23:** Read the following passage and solve the questions based on it.

Mintu Babu lives in a smaller house than her brother. Mintu Babu lives in a larger house than her parents. Mintu Babu's children live with her. Mintu Babu has no other relatives.

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- Q 20. If four females and two males live in a house smaller than Mintu Babu's brother, then, how many of Mintu Babu's children are boys and girls respectively?  
(a) 1, 0                    (b) 0, 1  
(c) 2, 1                    (d) 1, 2
- Q 21. If Mintu Babu's relative U lives in a larger house than her relative S, Then, all of the following may be true except  
(a) S is U's father  
(b) S is U's mother  
(c) U is younger to S  
(d) S is younger to U
- Q 22. Out of all the relatives of Mintu Babu who could possibly be either older or younger than her, none are the same age or older, then, how many of Mintu Babu's relatives must be younger than her?  
(a) Less than 2            (b) 2  
(c) 3                        (d) More than 3
- Q 23. If the number of males related to Mintu Babu equals the number of females then which of the following can be true?  
(a) Mintu Babu has 4 children  
(b) Mintu Babu has 3 children  
(c) Mintu Babu has 1 child  
(d) Mintu Babu has 2 children

**Directions for questions 24 and 25:** Read the following passage and solve the questions based on it.

Three committees are formed from eight people, viz., F, G, H, I, J, K, L, and M. Two of the committees have three members and one of the committees has only two members. Certain other conditions are as follows:

- (i) G serves with M
- (ii) L serves with only one other person
- (iii) F does not serve with M

- Q 24. If K, J and I serve on different committees, which one of the following must be true?  
(a) K serves with G  
(b) I serves on a committee of two  
(c) I serves on a committee of three  
(d) H serves on a committee of two
- Q 25. Which of the following is inconsistent with the given conditions?  
(a) K serves with H  
(b) M serves with H  
(c) M, H and I serve together  
(d) F does not serve with G

# ANSWERS



## ▷ PRACTICE EXERCISE 1

Q. No.	Answer						
1	(a)	2	(b)	3	(d)	4	(c)
5	(b)	6	(d)	7	(a)	8	(b)
9	(a)	10	(d)	11	(d)	12	(a)
13	(d)	14	(c)	15	(b)	16	(d)
17	(b)	18	(c)	19	(b)	20	(d)
21	(a)	22	(c)	23	(c)	24	(a)
25	(a)						

## ▷ PRACTICE EXERCISE 2

Q. No.	Answer						
1	(b)	2	(b)	3	(d)	4	(d)
5	(a)	6	(c)	7	(b)	8	(a)
9	(a)	10	(c)	11	(d)	12	(c)
13	(c)	14	(b)	15	(c)	16	(b)
17	(a)	18	(b)	19	(b)	20	(a)
21	(d)	22	(c)	23	(c)	24	(b)
25	(c)						

## ▷ PRACTICE EXERCISE 3

Q. No.	Answer						
1	(d)	2	(c)	3	(d)	4	(d)
5	(b)	6	(b)	7	(a)	8	(d)
9	(c)	10	(d)	11	(c)	12	(a)
13	(d)	14	(b)	15	(d)	16	(a)
17	(d)	18	(d)	19	(b)	20	(d)
21	(d)	22	(c)	23	(b)	24	(a)
25	(d)						

## HINTS AND EXPLANATIONS



### PRACTICE EXERCISE 1



#### Solution to Q5 to 8:

Five categories of the managers are:

- (1) Production (P)      (2) Marketing (M)
- (3) Human (H)      (4) Finance (F)
- (5) Management Information System (MIS)

Number of men = 3 and number of women = 2.

F will always sit next to a woman hence he is a male. The production manager is a male.

7. (a) If H is a male:

Male – H, F, P

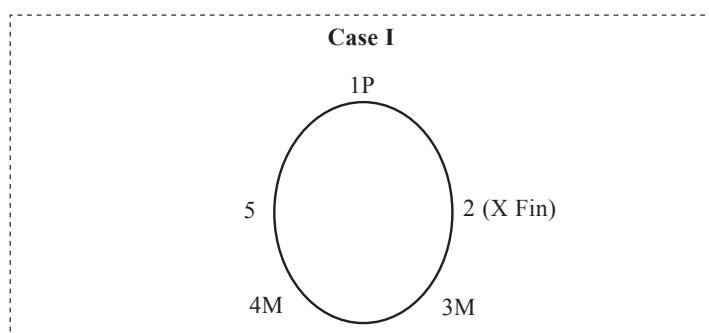
Female – M, MIS

As M herself is a woman so she cannot sit between the two women.

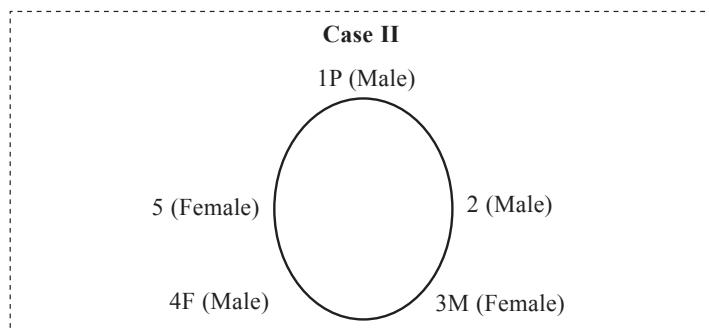
The statement in option (a) is definitely not true.

Hence, option (a) is the answer.

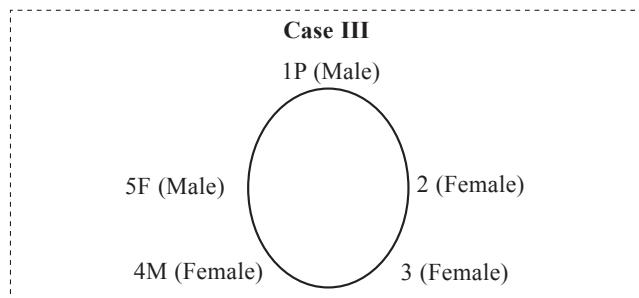
8. (b)



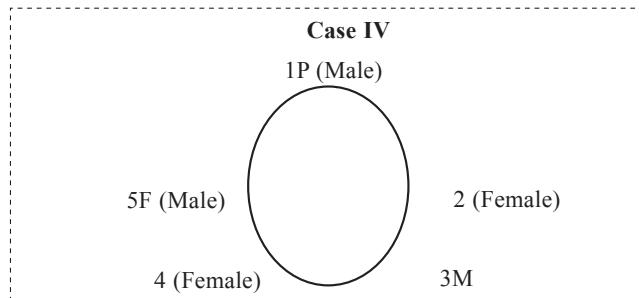
Look at the above figure, finance (F) cannot be at the second position as he always has a woman to his right whereas P, i.e., production manager is a man.



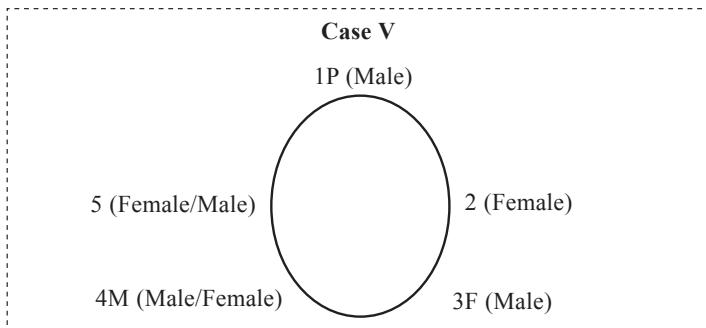
Assuming F is at the 4th position. Now M should be at the 3rd position because P should be seated as far as possible from M. Now M is a female as M is at the right of F. So 2nd position is occupied by a male as females cannot sit together. So the 5th position is occupied by a female. This is the 1st way.



When F is at the 5th position and the 4th position is occupied by M who is female because she is on the right of F. Therefore, the 2nd position is occupied by a female and the 3rd is occupied by a male. This is the 2nd way.



Not possible.



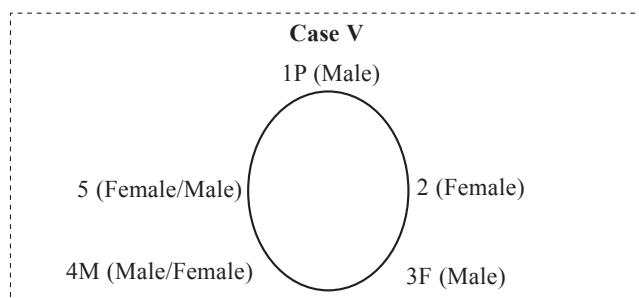
When F is at the 3rd position, the 2nd is occupied by a female. Now the 4th position is occupied by M who can be a male/female. But we can take a case from here in which M is a female. In that case the 5th position is occupied by a male.

This is the 3rd way.

Hence, in all, three arrangements are possible.

So, the answer is option (b).

9. (a) We can solve by negating the options given:





If MIS is a female and M is at the 4th position then the 3rd position can be occupied by F who is a male and the 2nd position by H who can be a female. So the condition III negated that H has to be a woman.

Now, let us see another case where H is a male. Now the 2nd option also gets negated that H has to be a female.

Therefore the answer is (I) only. Hence, option (a) is the answer.

**Solution to Q10 to 14:**

	N1	Skating			N2	Soft ball			N3	Steam Bath		
		In=R	Entry	Exit		R	Entry	Exit		R	Entry	Exit
Male	200	7.30	7.30	9.00	100	9.00	9.00	10.15	20	10.15	10.15	10.35
Female	50	8.30	8.30	9.30	20	9.30	9.30	10.10	5	10.15	10.25	10.45
					10	9.30	10.10	10.50	10	10.10	10.10	10.25
	110	8.30	9.00	10.00	10	10.10	10.10	10.50	5	10.50	10.50	11.05
									5	10.50	10.50	11.05
					56	10.00	10.15	10.55				
									20	10.55	10.55	11.10
Kids	90	9.00	9.00	10.00	44	10.00	10.15	11.45	8	10.55	11.05	11.20
					1	10.00	10.50	12.20				
	50	9.00	9.30	10.30	19	10.30	10.50	12.20				
					6	10.30	10.55	12.25				
	80	9.00	10.00	11.00	40	11.00	11.00	12.30				

10. (d) For 40 children (at the bottom of the table) the waiting time is zero. Hence, option (d) is the answer.
11. (d) A total of 20 males go through all the three centers in the minimum possible time. At 7:30 am they enter the centre and at 10:35 am they exit from the steam bath centre. Hence, 10% of the males took the minimum possible time. Therefore, option (d) is correct.
12. (a) A total of 10 women took the minimum time (at 8:30 am they enter and at 10:25 am they exit from the steam bath centre). Similarly, 8 females took the maximum time (at 8:30 am they entered whereas at 11:20 am they exit from the steam bath centre). So, the difference between the maximum and the minimum is  $10 - 8 = 2$ . Hence, option (a) is the answer.
13. (d) The maximum time taken by any male (5) is 135 minutes (from 7:30 am to 10:45 am). The maximum time taken by a female (8) is 170 minutes (8:30 am to 11:20 am) which is greater than the maximum time taken by any male. Hence, option (d) is the answer.
14. (c) At 9 am all the males will be out of the skating centre and the only people inside the centers will be females. The total number of females inside the skating activity centre at 9 am = 160. Hence, 90 more members can be accommodated inside. So,  $(220 - 90) = 130$  children will be waiting.

**Solution to Q15 and 16:**

15. (b) Only statements I and II are definitely true.  
16. (d) The correct ones should be either PP + BB, or, PP + BC, or, BC + PC.

**Solution to Q17 to 22:**

17. (b)

2006	2005	Country	2004
57	A	Australia	D
58	B	Kenya	E
59	C	Mozambique	F

The possible ranks for these three countries in 2005 = 51/53/58.

The minimum difference will occur if the signs of the change (+ or -) for these three countries are the same.

57	51	Australia
58	58	Kenya
59	53	Mozambique

Hence, net change = 12

Alternatively, for minimum change = Sum of ranks in 2006 – sum of ranks in 2005 =  $(57 + 58 + 59) - (51 + 58 + 53) = 12$ .

18. (c)

57	51	Australia	60
58	53	Kenya	58
59	58	Mozambique	56

Hence, the maximum value of D + E + F = 9 + 5 + 2 = 16

19. (b)

57	51	Australia	56
58	53	Kenya	57
59	58	Mozambique	58

Minimum value of D + E + F = 9

20. (d) Cannot be determined because the ranks in 2005 and 2004 can be interchanged to give different answers.
21. (a) The ranks available for 2004 = 56/57/58/60. Obviously the ranks 57 and 58 can be given to Australia and Kenya in 2006 as well as 2004. Hence, the difference = 0.
22. (c) Since the question asks for possibility, we will have to see all the different

options possible.

Ranks available for 2005 = 51/53/58 and

Ranks available for 2004 = 56/57/58/60.

We can see that rank 58 is available for both the years 2004 and 2005. The same rank can be given to Kenya during the whole given period.



## ▶ PRACTICE EXERCISE 2



### Solution to Q7 to 11:

- Shikari-Juari = 6. Prince Shikari and Prince Juari will always have a difference of 6 points in their overall points. Though any one of them may have 6 points more than the other.
- Considering the overall points, Bhikhari > Atyachari.
- Also Prince Shikari scores 4/8 point in the 2nd round and 2/4/6 points in the 4th round.

### Solution to Q12 to 15:

We can conclude the following:

12. (c) If Prince Juari wins the competition and marries the princess and Prince Bhikhari scores 28 points from the given 5 rounds, then the table will be as given below:

Prince	1st Round	2nd Round	3rd Round	4th Round	5th Round	Total
Shikari	9	4	8	2	3	26
Bhikhari	7	2	3	9	7	28
Atyachari	2	9	4	8		
Juari	4	6	9	5	8	32
Hazari		3			9	

If Shikari has scored points in the 2nd and the 4th rounds then the score of Juari should be 32 (i.e., 6 more). And in this case Juari has to score 9 points in the 3rd round.

Option (a), (b) and (d) will definitely be true for all cases. Only statement (c) could be false.

Hence, option (c) is the answer.

13. (c)

Prince	1st Round	2nd Round	3rd Round	4th Round	5th Round	Total
Shikari	9	8	8	6	3	34
Bhikhari	7	2	3	9	7	29
Atyachari	2	9	4	8	4	27
Juari	4	6	5	5	8	28
Hazari		3			9	

Since, The total points scored by Juari are 28 so, Shikari will score a



total of 34 points. So, he must have scored 8 points in the 2nd round and 6 points in the 4th round. Also, Prince Atyachari has scored a total of 27 points. Hence, Prince Bhikhari must score 29 points (as there are no ties) so Bhikhari scores 8, 9, 7 points respectively from the 1st, 4th and the 5th rounds. As it can be clearly seen from the table that Atyachari is fourth or fifth even though we do not know about Hazari's score.

So, option (c) is the correct answer.

14. (b) According to statement I, Prince Atyachari can score a maximum of 5 points in the 5th round which make his total points 28. As Prince Bhikhari can score a maximum of 29 points and Atyachari's score is always less than Bhikhari's score we get table as given below:

<i>Prince</i>	<i>1st Round</i>	<i>2nd Round</i>	<i>3rd Round</i>	<i>4th Round</i>	<i>5th Round</i>	<i>Total</i>
Shikari	9		8	6		
Bhikhari	8	2	3	9	7	29
Atyachari	2	9	4	8	5	28
Juari	4	6		5	8	
Hazari		3	2		9	

According to statement II, Juari scores the maximum possible point which is 9 in the 3rd round. Then his total will be 32. Also, Hazari can score a maximum of 30 points if he scores 7 points each in the 1st and the 4th rounds. So, Juari will always be the winner with a total of 32 points.

<i>Prince</i>	<i>1st Round</i>	<i>2nd Round</i>	<i>3rd Round</i>	<i>4th Round</i>	<i>5th Round</i>	<i>Total</i>
Shikari	9	4	8		2	26
Bhikhari	8	2	3	9	7	29 (maximum)
Atyachari	2	9	4	8	4	28 (maximum)
Juari	4	6		5	8	
Hazari		3		7	9	

Hence, statement II alone is sufficient to answer the question.  
Therefore, option (b) is the answer.

15. (c)

<i>Prince</i>	<i>1st Round</i>	<i>2nd Round</i>	<i>3rd Round</i>	<i>4th Round</i>	<i>5th Round</i>	<i>Total</i>
Shikari	9		8		3	26
Bhikhari	8	2	3	9	7	29 (maximum)
Atyachari	2	9	4	8	5	28 (maximum)
Juari	4	6		5	8	
Hazari	7	3		7	9	

The minimum score required by Hazari to win is 33 points. When Prince Atyachari scores 5 points in the 5th round, then the total points scored by



him are 28. So, Prince Bhikhari must score more than 28 points. But taking into consideration the given table, Prince Bhikhari can score a maximum of 29 points if he scores 8, 9, 7 points in the 1st, 4th and the 5th rounds respectively. But, one among Juari and Shikari will at least score 32. And Hazari can score a maximum (for the 3rd round to be minimum) of 7 points each in the 1st and the 4th rounds. So, the least possible points scored by Prince Hazari in the 3rd round =  $33 - (7 + 3 + 7 + 9) = 7$  which makes his total score as 33.

Therefore, option (c) is the answer.

#### **Solution to Q16 and 17:**

On the basis of the given information, we can make the following table:

Cards	Tag	Baseball
I		
M	K	N

16. (b) If K plays the same two games as N plays, this means that K and N will play tag and baseball. Therefore options (a), (c) and (d) are true and option (b) is false.  
 17. (a) I and N play tag and the fourth condition says that N must play baseball. Since no player can play more than two games, N cannot be one of the other two other persons playing cards. So options (b) and (c) are ruled out.

Option (d) cannot be the answer because O and L have to play together. Therefore option (a) is the correct answer.

#### **Solution to Q18 to 20:**

There are six shops U, V, W, X, Y and Z arranged in two rows such that the number of shops in both the rows are equal in number.

18. (b) Using the given statements, we can conclude that:

North-facing shop: X, Y, V

South-facing shop: W, Z, U

Hence, there are four arrangements possible.

U	Z	W
V	Y	X

OR,

U	Z	W
X	Y	V

OR,

W	Z	U
V	Y	X

OR,

W	Z	U
X	Y	V



Hence, option (b) is the answer.

19. (b) The shop between V and X is Y.  
Hence, option (b) is the answer.
20. (a) It can be seen that diagonally opposite to each other are U and Y.  
Hence, option (a) is the answer.

### PRACTICE EXERCISE 3



#### Solution to Q1 to 6:

From the given information

Room	Country	Cars	Donations
101			
102			
103		12	8
104		(y)	$> 4y$
105		8	$x - 2$
106			

Here, the Brazil businessmen can stay in either room number 105 or room number 106. But from the options of the first question of the set, it must be 105. Let us fill the other data from it.

Room	Country	Cars	Donations
101	Canada	—	$y + 2$
102	Uruguay	24	
103	England	12	8
104	Argentina	4	18
105	Brazil	8	$y$
106	Germany	16	24

1. (d) The Brazilian businessman is staying in room number 105.
2. (c) The Argentinean businessman donated to 18 institutions.
3. (d) The German businessman is staying in room number 106.
4. (d) The German businessman donated to 24 institutions.
5. (b) From the given options, the businessman from Uruguay owns the maximum cars.
6. (b) The businessman from England has 12 cars.

#### Solution to Q7 to 11:

7. (a) Using (I) if value of  $P = 40$ , then on two consecutive years 2001 and 2002, it



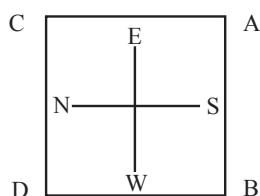
has remained the same. This is only possible if the average in 2002 = 40.

Using (II) despite the value of P not given, we can find all the other things if A, B, C, D and E are given as equal. Hence, this statement is wrong and only I is true

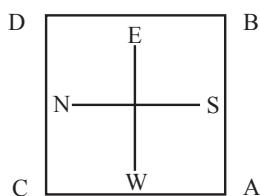
8. (d) Using I, if the value of P = 40, then there are two possibilities for 2002. Either all the cars have been sold for 40 itself or no car has been sold. Hence, this statement is incorrect.  
Using the given information in II we cannot find out. The average price of all the cars sold in 202  
Hence, none of the two statements is true.
9. (c) We need all the unknowns to find the value.
10. (d) Using the solution given for Q.8, if P = 30 or P = 40 is given, we can find that either no car has been sold or all the cars have been sold at the same price. Still we have the total freedom to increase the number of cars sold in 2000 or 2004 etc. We should also not forget that using the average we cannot find out the number of articles involved.  
Hence, this cannot be determined uniquely.
11. (c) From the given options if P = 30, then in 2003 no car is sold.

**Solution to Q12 to 14:**

12. (a) The position will be like this:



13. (d) The position will be like this:



14. (b) This is similar to the above question. Hence, at the north-west corner.

**Solution to Q20 to 23:**

Mintu Babu's parents (1 M, 1 F) live in the smallest house.

Mintu Babu stays with her children in the medium house.

So, Mintu Babu's brother stays in the largest house.

20. (d) Given that 4 females and 2 males live in smaller house, 3 females and 1 male stay in Mintu Babu's house.  
Hence, Mintu Babu has 3 children (1 boy and 2 girls).
21. (d) The only relatives of Mintu Babu are:  
U, staying in the larger house, is her brother.  
S, staying in the smaller house, is her father/mother.  
Hence, the statement (d) cannot be true.



23. (b) From Q. 20, it is clear that Mintu Babu has 3 children.

**Solution to Q24 and 25:**

24. (a)

<i>Committees</i>	<i>Two Members</i>
K, G, M	I, L
J, F, H,	J, L
I, F, H	

25. (d) Use the list of the people given above.

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# **MODULE**



# **LOGICAL REASONING A DAY**



- Logical Reasoning A Day

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1

# Logical Reasoning A Day

## ➤ LOGICAL REASONING 1

**Start Time:**

## **End Time:**



**Direction:** Study the following information carefully and answer the questions given below:

P, Q, R, S, T, V and W are seven friends left for seven different destinations-Delhi, Chennai, Hyderabad, Bangalore, Kolkata, Chandigarh and Jaipur-each one on a different day of the week. R left for Jaipur on Monday. On Sunday, one of them left for Bangalore. T left the next day of P who left for Chandigarh and on the previous day of W. S left for Kolkata on Friday. Q did not leave for either Hyderabad or Bangalore and W left for Delhi.



## ➤ LOGICAL REASONING 2

**Start Time:**

### **End Time:**

**Direction:** In each of the following questions, a group of letters is to be coded by number/symbol codes as per the codes given below and the conditions that follow.

*In each question, a group of letters is given followed by groups of number/symbol code numbered 1, 2, 3 and 4. Correct combination of codes is your answer. If none of the four combinations is correct, your answer is option 5, i.e., ‘None of these’.*



Letter	P	D	A	F	L	H	M	R	K	T	B	E	U
Code	3	6	#	8	S	4	2	7	@	9	5	1	%

### Conditions

- (i) If the first letter is a vowel and the last letter is a consonant, both are to be coded as '0'.
  - (ii) If the first letter is a consonant and the last letter is a vowel, both are to be coded as ©.
  - (iii) If the first as well as the last letters are vowels, both are to be coded as the code for first letters.

## O 1. KEDURT

- (a) @16%7@      (b) 916%7@      (c) 916%79      (d) #16S79

## Q 2. EDRTMP

- (a) 167923      (b) 167921      (c) 067920      (d) 067923

### O 3. FHRAMU

- (a) 847#28      (b) %47#28      (c) 847#2%      (d) ©47#2©

O 4. ULTPHE

- (a) %S934%      (b) 1S9341      (c) %S9341      (d) 1S934%

O 5. HKEDLB

- (a) 5@16S4      (b) 4@16S5      (c) ©@16S4      (d) 0@16S5

## ➤ LOGICAL REASONING 3

**Start Time:**

## **End Time:**

**Direction** for questions 1 to 4: *Read the information given below and solve the questions based on it.*

due North presently employs three Marketing Managers (MM) – A, B and C and five faculty members – D, E, F, G and H. Company is planning to open a new office. It is planning to relocate two of the three marketing managers and three of the five faculty members to the new office. Management wants to ensure that the individuals who do not function well together should not be sent as a part of the team.

Following information was available to the HR department of due North:

Marketing Managers A and C cannot be sent as a team to the new office.

C and E are excellent performers, though, they do not share good rapport, and hence, should not be sent together.

If D is sent, then G cannot be sent, and vice versa.

D and E should not be together in a team

Q 1. If D goes to the new office which of the following is (are) true?

- If E goes to the new office which of the following is (are) true

  - A. C cannot go
  - B. A cannot go
  - C. H must also go
  - (a) A only
  - (b) B and C only
  - (c) A and C only
  - (d) A, B and C

Q 2. If A is to be moved as one of the Marketing Managers, which of the following cannot be a possible working unit?

- (a) ABDEH      (b) ABFGH      (c) ABEGH      (d) ABDGH






## ➤ LOGICAL REASONING 4

**Start Time:** \_\_\_\_\_ **End Time:** \_\_\_\_\_

**Direction for questions 1 to 3:** Answer the following questions on the basis of the information given.

DuSiDo and DeeSiDO look alike, but DuSiDo lies only on Monday, Tuesday and Wednesday, whereas DeeSiDO lies only on Thursday, Friday and Saturday. They both tell the truth on Sunday. You come upon the two of them and they make the following statements.

- A: I will lie tomorrow.  
B: I lied yesterday and I will lie tomorrow.

- Q 1. Who is lying?

  - (a) A
  - (b) B
  - (c) Both are lying
  - (d) Data insufficient

Q 2. What is the day today?

  - (a) Sunday
  - (c) Wednesday

Q 3. Who is DuSiDo?

  - (a) A
  - (c) None of these

➤ LOGICAL REASONING 5

**Start Time:** \_\_\_\_\_ **End Time:** \_\_\_\_\_

**Direction:** Study the following information carefully and answer the questions given below:

A, B, C, D, E, F, G and H are sitting around a circle facing the center. D is fourth to the right of H and second to the left of B. F is fourth to the right of B. C is fourth to the right of E who is not an immediate neighbour of B or D. A is not an immediate neighbour of D.

- Q 1. What is B's position with respect to G?

  - (a) Third to the right
  - (b) Third to the left
  - (c) Fifth to the right
  - (d) Fourth to the left

Q 2. In which of the following combinations is the third person sitting in between the first and the second persons?

  - (a) ABC
  - (b) GCD
  - (c) AHE
  - (d) CBA

Q 3. Who is third to the right of A?

  - (a) H
  - (b) E
  - (c) F
  - (d) Data inadequate






## ➤ LOGICAL REASONING 6

**Start Time:** \_\_\_\_\_ **End Time:** \_\_\_\_\_

**Direction:** Study the following information carefully and answer the questions given below.

Following are the conditions for selecting Manager-Marketing in an organization. The candidate must

- (i) be at least 25 years and not more than 30 years as on 01.05.2010.

(ii) be a graduate in any discipline with at least 55 per cent marks.

(iii) have completed post graduate degree/diploma in marketing Management with at least 60 per cent marks.

(iv) have post qualification work experience of at least three years in the marketing division in an organization.

(v) have secured at least 45 per cent marks in the selection process. In the case of a candidate who satisfies all the conditions EXCEPT

(A) At (ii) above but has secured at least 65 per cent marks in post-graduation degree/diploma in marketing management, the case is to be referred to GM-Marketing.

(B) At (iv) above but has post qualification work experience of at least one year as Deputy Marketing Manager in an organization, the case is to be referred, to CGM-Marketing. In each question below details of one candidate are given. You have to take one of the following courses of action based on the information provided and the conditions and sub-conditions given above and mark the number of that course of action as your answer. You are not to assume anything other than the information provided in each question. All these cases are given to you as on 01.05.2010.

Mark answer 1: if the data provided are not adequate to take a decision.

Mark answer 2: if the candidate is to be selected.

Mark answer 2: if the candidate is to be selected.

Mark answer 4: if the case is to be referred to GM-Marketing

Mark answer 5: if the case is to be referred to CGM-Marketing.

- Q 1. Archit has been working in the Marketing division of an organization for the past five years. He has secured 60 per cent marks in both B.Sc. and post graduate degree in marketing Management. He was born on 8th May 1984. He has secured 46 per cent marks in the selection process.

Q 2. Ankita has been working in the Marketing division of an organization for the past four years after completing her post graduate diploma in Marketing Management with 62 per cent marks. She was born on 11th August 1982. She has secured 52 per cent marks in B.Sc. She has secured 48 per cent marks in the selection process.

Q 3. Subodh was born on 15th November 1982. He has been working as Deputy Marketing manager in an organization for the past two years after completing his post graduate degree in Marketing Management with 68 per cent marks. He has secured 56 per cent marks in B.Com. and 50 per cent marks in the selection process.



Q 4. Nisha was born on 29th April 1981. She has been working in the Marketing division of an organization for the past five years after completing her post graduate degree in Marketing Management with 67 per cent marks. She has secured 50 per cent marks in the selection process and 53 per cent marks in B.Com.

Q 5. Shreyas was born on 12th July 1983. He has secured 57 per cent marks in B.Com. He has been working in the Marketing division of an organization for the past four years after completing his post graduate diploma in Marketing Management with 67 per cent marks. He has secured 48 per cent marks in the selection process.

## ➤ LOGICAL REASONING 7

**Start Time:**

**End Time:**

**Direction for questions 1 to 4:** *Read the information given below and solve the questions based on it. Professor Mukhopadhyay works only on Mondays, Tuesdays, Wednesdays, Fridays, and Saturdays. She performs four different activities – Lecturing, Conducting quizzes, evaluating quizzes and working on consultancy projects. Each working day she performs exactly one activity in the morning and exactly one activity in the afternoon. During each week her work schedule MUST satisfy the following restrictions:*

She conducts quizzes on exactly three mornings.  
If she conducts quizzes on Monday, she does not conduct a quiz on Tuesday.  
She lectures in the afternoon on exactly two consecutive calendar days.  
She evaluates quizzes on exactly one morning and three afternoons.  
She works on consultancy project on exactly one morning.  
On Saturday, she neither lectures nor conducts quizzes.

Q 1. On Wednesdays, the professor could be scheduled to?

- (a) Work on a consultancy project in the morning and conduct a quiz in the afternoon
- (b) Lecture in the morning and evaluate quizzes in the afternoon.
- (c) Conduct a quiz in the morning and lecture in the afternoon
- (d) Conduct a quiz in the morning and work on consultancy project in the afternoon.

Q 2. Which of the following statements must be true?

- (a) There is one day on which she evaluates quizzes both in the morning and in the afternoon.
- (b) She works on the consultancy project on one of the days on which lectures.
- (c) She works on consultancy project on one of the days on which she evaluates quizzes.
- (d) She lectures on one of the days on which she conducts quiz.

Q 3. If the Professor conducts a quiz on Tuesday, then her schedule for evaluating quizzes could be?

- (a) Monday morning, Monday afternoon, Friday morning, Friday afternoon.
- (b) Monday morning, Friday afternoon, Saturday morning, Saturday afternoon.
- (c) Monday afternoon, Wednesday morning, Wednesday afternoon, Saturday afternoon.
- (d) Wednesday afternoon, Friday afternoon, Saturday morning, Saturday afternoon.

Q 4. Which one of the following must be a day on which professor lectures?

- (a) Monday      (b) Tuesday      (c) Wednesday      (d) Friday

## ➤ LOGICAL REASONING 8



**Start Time:**

## **End Time:**

**Direction:** Study the following information carefully and answer the questions given below:

J, P, Q, R, S, T, U and V are four married couples sitting in a circle facing the center. The profession of the males within the group are lecturer, lawyer, doctor and scientist. Among the males, only R (the lawyer) and V (the scientist) are sitting together. Each man is seated beside his wife. U, the wife of the lecturer is seated second to the left of V. T is seated between U and V, P is the wife of the doctor, Q is not the doctor. S is a male.



## ➤ LOGICAL REASONING 9

**Start Time:**

## End Time:

**Direction:** Study the following information carefully and answer the questions given below:

A, B, C, D, E, F, G and H are eight students of a school. They study in Standard VI, VII and VIII with not more than three in any Standard. Each of them has a favourite subject from Physics, Geography, English, Marathi, Mathematics, Chemistry, Biology and Economics but not necessarily in the same order.

D likes Chemistry and studies in Standard VIII with only H. B does not study in Standard VII. E and A study in the same Standard but not with B. C and F study in the same Standard. Those who study in Standard VI do not like Mathematics or Biology. F likes Physics. The one who studies in Standard VIII likes English. C does not like Geography. A's favourite subject is Marathi and G does not like Biology.






➤ LOGICAL REASONING 10

**Start Time:** \_\_\_\_\_ **End Time:** \_\_\_\_\_

**Direction:** Study the following information carefully and answer the questions.

A, B, C, D, E, F, G and H are sitting around a circle facing the centre. A sits fourth to the right of H while second to the left of F. C is not the neighbor of F and B. D sits third to the right of C. H never sits next to G.



## ➤ LOGICAL REASONING 11

**Start Time:** \_\_\_\_\_ **End Time:** \_\_\_\_\_

**Direction:** Study the following information carefully and answer the given questions:

There are seven special workshops on seven subjects viz. Mathematics, Zoology, Botany, Chemistry, Physics, English and Statistics are planned on seven days of a single week with one workshop per day-starting from Monday and ending on Sunday. All these special workshops have to be conducted in this week. Chemistry is taught on Thursday. English is taught the day immediately next to the day when Zoology is taught. English is neither taught on Tuesday nor Saturday. Only one lecture is held between Chemistry and Botany. Two lectures are scheduled between Mathematics and Zoology. Statistics is neither taught on Monday nor Sunday.

- Q 1. On which of the following days is Physics taught?  
(a) Monday      (b) Tuesday      (c) Wednesday      (d) Thursday

Q 2. How many subjects are taught between Botany and Zoology?  
(a) None      (b) One      (c) Two      (d) Three






➤ LOGICAL REASONING 12

**Start Time:**

**End Time:**

**Direction:** *These questions are based on the following information. Study it carefully and answer the questions.*

- (i) ‘ $A \times B$ ’ means ‘ $A$  is father of  $B$ ’.      (ii) ‘ $A \div B$ ’ means ‘ $A$  is daughter of  $B$ ’.  
 (iii) ‘ $A + B$ ’ means ‘ $A$  is sister of  $B$ ’.      (iv) ‘ $A - B$ ’ means ‘ $A$  is husband of  $B$ ’.

- Q 1. In  $F \div R \times H - L$ , how is H related to F?

  - (a) Father
  - (b) Brother
  - (c) Sister
  - (d) Cannot be determined

Q 2. Which of the following indicates 'N is mother of K'?

  - (a)  $K + L \div N \times F$
  - (b)  $K + L \div N - M$
  - (c)  $H \times K \div N$
  - (d)  $N \times F + K$

Q 3. In  $F - R + H \div T$  how is F related to T?

  - (a) Son-in-law
  - (b) Daughter-in-law
  - (c) Son
  - (d) Daughter

Q 4. In  $G \times T + Q \div M$ , how is M related to G?

  - (a) Brother
  - (b) Sister
  - (c) Sister-in-law
  - (d) None of these

➤ LOGICAL REASONING 13

**Start Time:**

**End Time:**

**Direction:** Answer the following questions given below:



- Q 5. Town D is to the West of town M. Town R is to the South of town D. Town K is to the East of town R. Town K is towards which direction of town D?

  - (a) South
  - (b) East
  - (c) North-East
  - (d) South-East

## ➤ LOGICAL REASONING 14

**Start Time:** \_\_\_\_\_ **End Time:** \_\_\_\_\_

**Direction:** Study the following information carefully and answer the questions given below:

A, M, D, P, R, T, B and H are sitting around a circle facing at the center. M is third to the left of A who is second to the left to T. D is second to the right of H who is second to the right of T. R is second to the right of B who is not an immediate neighbour of T.

- Q 1. Which of the following combinations represents the first and the second to the left of B respectively?  
(a) MD                    (b) DH                    (c) AM                    (d) DM

Q 2. Who is third to the right of T?  
(a) D                    (b) B                    (c) H                    (d) M

Q 3. Who is to the immediate left of H?  
(a) P                    (b) M                    (c) T                    (d) R

Q 4. Who is second to the left of B?  
(a) D                    (b) H  
(c) M                    (d) Data inadequate

Q 5. In which of the following combinations the third person is second to the left of the second person?  
(a) BAR                    (b) DBM                    (c) TPH                    (d) PMH

## ➤ LOGICAL REASONING 15

**Start Time:** \_\_\_\_\_ **End Time:** \_\_\_\_\_

**Direction:** Study the following information carefully and answer the questions given below:

P, Q, R, S, T and M are six students of a school, one each studies in Class I – VI. Each of them has a favourite colour from red, black, blue, yellow, pink and green, not necessarily in the same order.

Q likes black and does not study in Class IV or V. The one who studies in class IV does not like green. P studies in class II. M likes blue and does not study in class IV. The one who likes yellow studies in class VI. S likes pink and studies in class I. R does not study in class VI.






## ➤ LOGICAL REASONING 16

**Start Time:**

### **End Time:**

**Direction:** Study the following information carefully and answer the questions given below:

There is a special six lectures series to be conducted in one single week starting from Monday and ending on Sunday of the same week. Computer Science is not on Tuesday or Saturday. Psychology is immediately after Organizational Behaviour. Statistics is not on Friday and there is one day gap between Statistics and Research Methods. One day prior to the schedule of Economics there is no lecture (as that day is the ‘off’ day and Monday is not the ‘off’ day).

- Q 1. Which of the following is the last lecture scheduled?

  - (a) Statistic
  - (b) Research Methods
  - (c) Psychology
  - (d) None of these

Q 2. If Wednesday is the off day. The code would be 2 – 4. If Thursday was the off day, the code would be 3 – 3. Taking into account the off day which of the following code is correct?

  - (a) 2 – 4
  - (b) 3 – 3
  - (c) 4 – 2
  - (d) None of these

Q 3. Which lecture is scheduled on Friday?

  - (a) Economics
  - (b) Psychology
  - (c) Computer Science
  - (d) None of these

Q 4. How many lectures were scheduled between Economics and Psychology?

  - (a) One
  - (b) Two
  - (c) Three
  - (d) Cannot be determined

Q 5. Which day is Computer Science scheduled?

  - (a) Monday
  - (b) Wednesday
  - (c) Thursday
  - (d) Cannot be determined

Q 6. Which day is the off day?

  - (a) Tuesday
  - (b) Wednesday
  - (c) Friday
  - (d) None of these

Q 7. If someone wants to attend only two lectures out of Psychology, Research Methods and Computer Science but wants the two days to be successive (one after the other) then which lecture combination may be selected?

  - (a) Research Methods, Computer Science
  - (b) Psychology, Computer Science
  - (c) Psychology, Research Methods
  - (d) Any two of the three is possible



## ➤ LOGICAL REASONING 17

**Start Time:**

**End Time:**

**Direction:** Study the following information carefully and answer the questions given below:

A, B, C, D, E, F, G and H are eight persons working in three different departments viz. operations, Sales and Finance of an organization with at least two and not more than three in any department. They are in three different scales viz. I, II and III with at least two in any one scale.

Both the employees in Operations departments are in Scale II. D works in Sales department and belongs to Scale I. A works in Finance departments and does not belong to Scale I. Two employees in Sales department belong to one scale. F works with only H in one of the departments. C works with E in one of the departments. B does not work with either C or A in the same department. G does not belong to Scale III. E does not belong to Scale I.

Q 1. Which of the following combinations is correct?

- |                       |                         |
|-----------------------|-------------------------|
| (a) Operation – F – I | (b) Operation – H – III |
| (c) Sales – B – II    | (d) Finance – E – III   |

Q 2. Which of the following groups of employees, work in sales department?

- |         |                     |
|---------|---------------------|
| (a) DBE | (b) DBC             |
| (c) DBG | (d) Data inadequate |

Q 3. H belongs to which scale?

- |         |                     |
|---------|---------------------|
| (a) I   | (b) II              |
| (c) III | (d) Data inadequate |

Q 4. G belongs to which scale?

- |        |         |       |             |
|--------|---------|-------|-------------|
| (a) II | (b) III | (c) I | (d) I or II |
|--------|---------|-------|-------------|

Q 5. C belongs to which scale?

- |       |        |         |             |
|-------|--------|---------|-------------|
| (a) I | (b) II | (c) III | (d) I or II |
|-------|--------|---------|-------------|

## ➤ LOGICAL REASONING 18

**Start Time:**

**End Time:**

**Direction:** Study the following information carefully and answer the questions given below:

P, Q, R, S, T, V, W and Z are sitting around a circle facing the center. T is second to the right of R who is third to the right of P. S is second to the left of P and fourth to the right of Q. Z is third to the right of V who is not an immediate neighbour of P.

Q 1. In which of the following combinations is the first person sitting in between the second and the third persons?

- |         |         |         |         |
|---------|---------|---------|---------|
| (a) VTS | (b) TZS | (c) QRV | (d) PWQ |
|---------|---------|---------|---------|

Q 2. Who is second to the right of T?

- |       |       |       |       |
|-------|-------|-------|-------|
| (a) S | (b) Z | (c) P | (d) R |
|-------|-------|-------|-------|

Q 3. What is P's position with respect to S?

- |                        |                         |
|------------------------|-------------------------|
| (a) Fourth to the left | (b) Fourth to the right |
| (c) Fifth to the left  | (d) Sixth to the left   |

Q 4. Who is to the immediate left of Z?

- |       |       |       |       |
|-------|-------|-------|-------|
| (a) T | (b) P | (c) S | (d) V |
|-------|-------|-------|-------|

Q 5. Who is second to the right of W?

- |       |       |       |       |
|-------|-------|-------|-------|
| (a) R | (b) Q | (c) Z | (d) S |
|-------|-------|-------|-------|

## ➤ LOGICAL REASONING 19

**Start Time:**

**End Time:**



**Direction:** Study the following information carefully and answer the given questions.

Eight friends Q, R, S, T, V, W, Y and Z are sitting around a circular table facing the center. There are three males and five females in the groups of friends. **No two males are immediate neighbours of each other.**

- V sits second to the right of his wife.
- S sits third to the right of V.
- W sits second to the right of her husband Z. Z is not an immediate neighbour of V's wife.
- T is a male and Y is not an immediate neighbour of V.
- R sits second to the right of Q.

Q 1. What is the position of T with respect to Z?

- |                        |                              |
|------------------------|------------------------------|
| (a) Second to the left | (b) Immediately to the right |
| (c) Third to the left  | (d) Third to the right       |

Q 2. Which of the following statements regarding S is definitely correct?

- |   |
|---|
| (a) S is one of the male members of the group       |
| (b) Both the immediate neighbours of S are females. |
| (c) S sits third to the left of T                   |
| (d) W is an immediate neighbour of S                |

Q 3. Who amongst the following is V's wife?

- |       |       |       |       |
|-------|-------|-------|-------|
| (a) Q | (b) Y | (c) R | (d) T |
|-------|-------|-------|-------|

Q 4. Who amongst the following has a male sitting to the immediate left and the right?

- |       |       |       |       |
|-------|-------|-------|-------|
| (a) Y | (b) R | (c) Q | (d) S |
|-------|-------|-------|-------|

Q 5. Which of the following not true regarding T?

- |   |
|---|
| (a) T is an immediate neighbour of Z's wife |
| (b) No male is an immediate neighbour of T  |
| (c) Q sits second to right of T             |
| (d) All are true                            |

Q 6. Which of the following pairs represents the immediate neighbours of T?

- |        |        |        |        |
|--------|--------|--------|--------|
| (a) RQ | (b) WZ | (c) YV | (d) WY |
|--------|--------|--------|--------|

Q 7. How many people sit between V and S when counted in anticlockwise direction?

- |          |         |         |           |
|----------|---------|---------|-----------|
| (a) None | (b) One | (c) Two | (d) Three |
|----------|---------|---------|-----------|

Q 8. Who amongst the following sits exactly between V and Y?

- |       |       |       |       |
|-------|-------|-------|-------|
| (a) Q | (b) W | (c) R | (d) T |
|-------|-------|-------|-------|

## ➤ LOGICAL REASONING 20

**Start Time:**

**End Time:**

**Direction:** Study the following information carefully and answer the questions given below:

Seven friends A, B, C, D, E, F and G studied in colleges X, Y and Z and are currently in different professions namely, Medicines, fashion designing, Engineering, Business, Acting, Teaching and Architecture (not necessarily in the same order). At least two and not more than three friends had studied in the same college.

C is an architect and studied in college Y. E is not a businessman. Only G amongst the seven friends studied in college X along with E. F is an engineer and did not study in college Y. B is an actor and did not study in the same college as F. A did not study in college Z. Those who studied in college X are neither Fashion Designers nor teachers. None of those studied in college Y is a teacher.



- Q 1. Who amongst the following have studied in college Z?  
 (a) B, A                    (b) C, F                    (c) B, D, F                    (d) D, F
- Q 2. Who amongst the following groups represents the students of college Y?  
 (a) C, E, G                    (b) A, C, D                    (c) A, B, C                    (d) D, B, C
- Q 3. What is the profession of F?  
 (a) Engineering                    (b) Business                    (c) Medicines                    (d) Acting
- Q 4. Who amongst the following in the profession of Medicines?  
 (a) E                            (b) G                            (c) A                            (d) D
- Q 5. What is the profession of A?  
 (a) Teaching                            (b) Medicines  
 (c) Business                            (d) Fashion Designing
- Q 6. Which of the following combinations of person, college and profession is definitely correct?  
 (a) E – X – Fashion Designing                    (b) F – X – Engineering  
 (c) A – Y – Businessman                            (d) D – Z – Teaching
- Q 7. Who amongst the following is a teacher?  
 (a) A                            (b) D                            (c) E                            (d) G

## ➤ LOGICAL REASONING 21

**Start Time:**

**End Time:**

**Direction:** Study the following information carefully and answer the questions given below:

Four friends Amrita, Deepa, Smita and Rhea complete their PhD in different number of years. The one who took maximum tie took eight years to complete her PhD while the one who took the least tie took only three years to complete it. Rhea took more time only than Amrita and completed her PhD in five years. Smita did not take longer time than Deepa to complete her PhD.

- Q 1. How many years did Amrita take to complete her PhD?  
 (a) 8                            (b) 3                            (c) 4                            (d) Either 6 or 7
- Q 2. How many years did Smita take to complete her PhD?  
 (a) 8                            (b) 3  
 (c) 4                            (d) Cannot be determined
- Q 3. Who amongst the following took the maximum number of years to complete PhD?  
 (a) Amrita                            (b) Rhea                            (c) Smita                            (d) Deepa

## ➤ LOGICAL REASONING 22

**Start Time:**

**End Time:**

**Direction:** Study the following information carefully and answer the questions given below:

In a college there are 900 students who are doing Post Graduation (PG) in any one of the subjects, out of the five different subject's viz. Zoology, Botany, Mathematics, Physics and Statistics. The ratio between the boys and the girls among those is 5 : 4 redoing PG in Zoology and 25% of the total girls are doing PG in Statistics. Total number of students doing PG in Botany is 220. Total students who are doing PG in Mathematics are 150. Respective ratio between the number of girls and the number



of boys doing PG in Statistics is 2 : 3. Twenty per cent of the total numbers of boys are doing PG in Botany. The ratio between the number of girls and boys doing PG in Mathematics is 1 : 2 respectively. There are equal number of boys and girls who are doing PG in Physics. 180 students are doing PG in Zoology.

- Q 1. What is the total number of students doing PG in Physics and Statistics together?  
(a) 400                    (b) 300                    (c) 350                    (d) 250

Q 2. What is the respective ratio between the boys doing PG in Mathematics and the number of girls doing PG in Botany?  
(a) 3 : 4                    (b) 6 : 1                    (c) 5 : 6                    (d) 2 : 3

Q 3. What is the difference between the boys doing PG in Zoology and the number of girls doing PG in Mathematics?  
(a) 50                    (b) 60                    (c) 30                    (d) 40

Q 4. In which PG course the number of girls is the highest and which course the number of boys is the lowest (respectively)?  
(a) Botany and Mathematics                    (b) Mathematics and Physics  
(c) Botany and Zoology                        (d) Botany and Physics

Q 5. Number of girls doing PG in Statistics is what per cent of the number of boys doing PG in Physics?  
(a) 250                    (b) 280                    (c) 310                    (d) 200

## ➤ LOGICAL REASONING 23

**Start Time:**

## End Time:

**Direction:** Study the following information carefully and answer the questions given below:

Seven representatives of a company – Samir, Nita, Richa, Shweta, Gifty, Paul and Mohit – traveled to three different countries, i.e., South Africa, Australia and France. Each of them traveled on different days of the week (no two persons traveled on the same day), starting on Monday and ending on Sunday. Minimum two people traveled to each country and South Africa is the only country to which three people traveled.

Samir traveled to South Africa on Monday. Paul traveled to Australia but neither on Tuesday nor on Saturday. Mohit traveled on Sunday but not to France. The one who traveled to Australia traveled on Tuesday and the one who traveled to France traveled on Saturday. Gifty traveled on Wednesday. Richa traveled to South Africa but not on Thursday. Nita did not travel to France.



## ➤ LOGICAL REASONING 24

**Start Time:**

**End Time:**

**Direction:** Study the following information carefully and answer the questions given below:

Twelve people are sitting in two parallel rows containing six people each, in such a way that there is an equal distance between adjacent persons. In row – 1 A, B, A, D, E and F are seated and all of them are facing south. In row – 2 P, Q, R, S, T and V are seated and all of them are facing north. Therefore, in the given seating arrangement each member seated in a row faces another member of the other row.

V sits third to right of S. S faces F and F does not sit at any of the extreme ends of the line. D sits third to right of C. R faces C. The one facing E sits third to right of P. B and P do not sit at the extreme ends of the line. T is not an immediate neighbour of V and A is not an immediate neighbour of C.

- Q 1. Who amongst the following faces D?  
 (a) T                    (b) P                    (c) Q                    (d) R
- Q 2. Who amongst the following represent the people sitting at extreme ends of the rows?  
 (a) R, F                (b) T, A                (c) D, R                (d) C, Q
- Q 3. Four of the following five are alike in a certain way and thus form a group. Which is the one that does not belong to that group?  
 (a) B – T              (b) A – Q              (c) C – S              (d) D – R
- Q 4. Four of the following five are alike in a certain way and thus form a group. Which is the one that does not belong to that group?  
 (a) D                    (b) S                    (c) V                    (d) T
- Q 5. How many persons are seated between R and T?  
 (a) One                 (b) Two                 (c) Three                (d) Four
- Q 6. Who amongst the following faces Q?  
 (a) D                    (b) B                    (c) E                    (d) A
- Q 7. Which of the following is true regarding B?  
 (a) B sits to the immediate left of C  
 (b) B faces Q  
 (c) B sits fourth from the extreme left end of the line  
 (d) D and F are immediate neighbours of B

## ➤ LOGICAL REASONING 25

**Start Time:**

**End Time:**

**Direction:** Study the following information carefully and answer the questions given below:

A, B, C, D, E, F, G and H are sitting around a circular table facing the center. Each one of them has a different profession viz. doctor, Engineer, Architect, Pilot, Banker, Teacher, Businessman and Politician.

The Politician sits third to right of G. C is an immediate neighbour of G. Architect sits second to right of C. B sits third to right of H. H is neither a politician nor an architect. Only one person sits between C and the teacher. A and F are immediate neighbours of each other. Neither A nor F is a politician. Doctor sits second to right of A. Two people sit between D and the engineer. D is not a politician. Pilot is not an immediate neighbour of the politician. Banker sits second to left of A.



# ANSWERS



## LOGICAL REASONING1

Q. No.	Answer						
1	(b)	2	(c)	3	(d)	4	(d)
5	(a)						

## LOGICAL REASONING 2

Q. No.	Answer						
1	(b)	2	(c)	3	(d)	4	(a)
5	(b)						

## LOGICAL REASONING 3

Q. No.	Answer						
1	(c)	2	(d)	3	(b)	4	(d)

## LOGICAL REASONING 4

Q. No.	Answer	Q. No.	Answer	Q. No.	Answer
1	(b)	2	(c)	3	(b)

## LOGICAL REASONING 5

Q. No.	Answer						
1	(a)	2	(b)	3	(c)	4	(a)
5	(c)						

## LOGICAL REASONING 6

Q. No.	Answer						
1	(b)	2	(c)	3	(e)	4	(d)
5	(b)						

## LOGICAL REASONING 7

Q. No.	Answer						
1	(c)	2	(d)	3	(d)	4	(b)

## LOGICAL REASONING 8

Q. No.	Answer						
1	(d)	2	(a)	3	(b)	4	(c)
5	(c)						

**LOGICAL REASONING 9**

Q. No.	Answer						
1	(a)	2	(d)	3	(a)	4	(d)
5	(c)						

**LOGICAL REASONING 10**

Q. No.	Answer						
1	(b)	2	(c)	3	(a)	4	(b)
5	(d)	6	(d)				

**LOGICAL REASONING 11**

Q. No.	Answer						
1	(a)	2	(d)	3	(c)	4	(d)
5	(a)						

**LOGICAL REASONING 12**

Q. No.	Answer						
1	(b)	2	(c)	3	(a)	4	(d)

**LOGICAL REASONING 13**

Q. No.	Answer						
1	(d)	2	(c)	3	(c)	4	(a)
5	(d)						

**LOGICAL REASONING 14**

Q. No.	Answer						
1	(d)	2	(d)	3	(a)	4	(c)
5	(b)						

**LOGICAL REASONING 15**

Q. No.	Answer						
1	(c)	2	(d)	3	(a)	4	(d)
5	(d)						

**LOGICAL REASONING 16**

Q. No.	Answer						
1	(d)	2	(d)	3	(d)	4	(c)
5	(c)	6	(d)	7	(a)		

### ↳ LOGICAL REASONING 17

Q. No.	Answer						
1	(d)	2	(c)	3	(b)	4	(c)
5	(c)						

### ↳ LOGICAL REASONING 18

Q. No.	Answer						
1	(c)	2	(b)	3	(d)	4	(c)
5	(a)						

### ↳ LOGICAL REASONING 19

Q. No.	Answer						
1	(d)	2	(d)	3	(b)	4	(b)
5	(d)	6	(d)	7	(c)	8	(a)

### ↳ LOGICAL REASONING 20

Q. No.	Answer						
1	(d)	2	(c)	3	(a)	4	(a)
5	(d)	6	(d)	7	(b)		

### ↳ LOGICAL REASONING 21

Q. No.	Answer	Q. No.	Answer	Q. No.	Answer
1	(b)	2	(d)	3	(d)

### ↳ LOGICAL REASONING 22

Q. No.	Answer						
1	(c)	2	(c)	3	(a)	4	(d)
5	(d)						

### ↳ LOGICAL REASONING 23

Q. No.	Answer						
1	(c)	2	(a)	3	(d)	4	(d)
5	(c)						

### ↳ LOGICAL REASONING 24

Q. No.	Answer						
1	(a)	2	(b)	3	(d)	4	(b)
5	(b)	6	(c)	7	(d)		

### ↳ PRACTICES EXERCISE 25

Q. No.	Answer						
1	(a)	2	(c)	3	(c)	4	(d)
5	(b)	6	(d)	7	(d)		

## HINTS AND EXPLANATIONS



### LOGICAL REASONING 1

• • •

<i>Day</i>	<i>Person</i>	<i>City</i>
Monday	R	Jaipur
Tuesday	P	Chandigarh
Wednesday	T	Hyderabad
Thursday	W	Delhi
Friday	S	Kolkata
Saturday	Q	Chennai
Sunday	V	Bangalore

1. (b) Q left on Saturday.
2. (c) V left for Bangalore.
3. (d) T left on Wednesday.
4. (d) All combinations are correct.
5. (a) P left on Tuesday.

### LOGICAL REASONING 2

• • •

1. (b) K E D U R T  
       ↓ ↓ ↓ ↓ ↓ ↓  
       @ 1 6 % 7 9

2. (c) E D R T M P  
       ↓ ↓ ↓ ↓ ↓ ↓  
       @ 6 7 9 2 0

Condition (i) is applicable.

3. (d) F H R A M U  
       ↓ ↓ ↓ ↓ ↓ ↓  
       © 4 7 # 2 ©

Condition (ii) is applicable.

4. (a) U L T P H E  
       ↓ ↓ ↓ ↓ ↓ ↓  
       % \$ 9 3 4 %

Condition (iii) is applicable.

5. (b) H K E D L B  
       ↓ ↓ ↓ ↓ ↓ ↓  
       4 @ 1 6 \$ 5



### LOGICAL REASONING 3



1. (c) D and G as well as D and F cannot work together. New office requires 3 faculty members. Therefore, E, H should go. C and E cannot function together as a team. As E has to go, C cannot go. Therefore, A and B have to be the marketing managers if D is posted to San Jose.  
Hence, option (c) is the answer.
2. (d) ABDGH is not a working unit as D and G cannot work together. Hence, option (d) is the answer.
3. (b) If C and F are moved to the new office, then B should be the only other marketing manager who can go. Therefore, the managers are BC. Of the faculty members, E cannot go. Therefore, one has to choose 3 faculty members from D, F, G, H. D cannot be sent because if he goes, then F and G cannot go. Therefore, FGH are the faculty members and B, C are the marketing managers. Only one option available.  
Hence, option (b) is the answer.
4. (d) B is sure to find a berth in the group. Hence, option (d) is the answer.

### LOGICAL REASONING 4



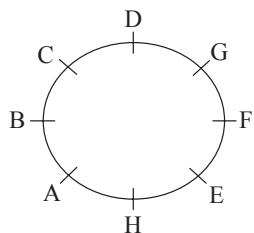
A lie can be a complete lie or a “half – truth”. So when B says that “I lied yesterday and I will lie tomorrow”, even one part of this statement is wrong, we will call B a liar.

### LOGICAL REASONING 5



1. (a) B is third to the right of G.

Sitting Arrangement



2. (b) D is sitting between G and C.
3. (c) F is third to right of A.
4. (a) G is to the immediate left of D.
5. (c) A is fourth to the left of G.

### LOGICAL REASONING 6



1. (b) Archit satisfies all the conditions. Therefore, he can be selected.

Candidate	Conditions				
	(i)	(ii) or (A)	(iii)	(iv) or (B)	(v)
Archit	✓	✓	—	✓	✓
Ankita	✓	✗	✗	✓	—

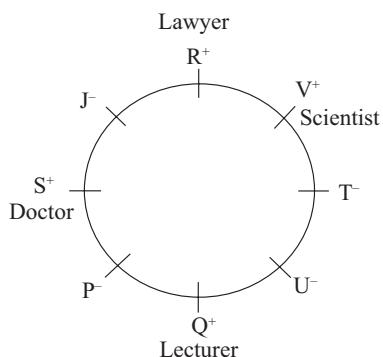
Candidate	Conditions				
	(i)	(ii) or (A)	(iii)	(iv) or (B)	(v)
Subodh	✓	✓	—	✓	✓
Nisha	✓	—	✓	✓	—
Shreyas	✓	✓	—	✓	—

2. (c) Ankita does not satisfy condition (ii) or (A). Therefore, she cannot be selected.
3. (e) Subodh satisfies condition (i), (ii), (iii), (B) and (v). Therefore, his case would be referred to CGM-Marketing.
4. (d) Nisha satisfies conditions (i), (A), (iii), (iv) and (v). Therefore, her case would be referred to GM-Marketing.
5. (b) Shreyas satisfies all the conditions. Therefore, he can be selected.

## LOGICAL REASONING 8



Following is the seating arrangement:



(+) is male, and (−) is female.

1. (d) P is to the immediate left of S.
2. (a) J is third to the left of T.
3. (b) T is the wife of V.
4. (c) Wives of Q and V are immediate neighbours.

## LOGICAL REASONING 9



Student	Class	Favourite Subject
A	VII	Marathi
B	VI	Geography
C	VI	Economics





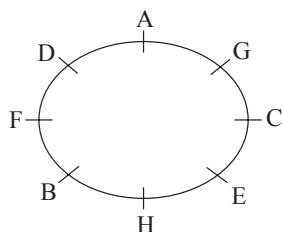
<i>Student</i>	<i>Class</i>	<i>Favourite Subject</i>
D	VIII	Chemistry
E	VII	Biology
F	VI	Physics
G	VII	Mathematics
H	VIII	English

1. (a) H likes English.
2. (d) G's favourite subject is Mathematics.
3. (a) C's favourite subject is Economics.
4. (d) None is correct.
5. (c) A, E and G study in Standard VIII.

#### ↳ LOGICAL REASONING 10



Following is the arrangement:



#### ↳ LOGICAL REASONING 11



<i>Days</i>	<i>Subject</i>
Monday	Physics
Tuesday	Botany
Wednesday	Mathematics
Thursday	Chemistry
Friday	Statistics
Saturday	Zoology
Sunday	English

1. (a) Physics is taught on Monday.
2. (d) Three subjects are taught between Botany and Zoology.



3. (c) Zoology is taught on Saturday.
  4. (d) Statistics is taught on Friday.
  5. (a) S L U A Y J V E I (From left) H R D B Z G Q N O (From right). Therefore, YV is related to ZQ.

 LOGICAL REASONING 12



1. (b)  $F \div R \rightarrow F$  is daughter of R.  
 $R \times H \rightarrow R$  is father of H.  
 $H - L \rightarrow H$  is husband of L.  
H is brother of F.
  2. (c)  $K + L \rightarrow K$  is sister of L.  
 $L \div N \rightarrow L$  is daughter of N.  
 $N \times F \rightarrow N$  is father of F.  
N is father of K.  
 $K + L \div N - M \rightarrow$   
 $N - M \rightarrow N$  is husband of M.  
N is father of K.  
 $H \times K \rightarrow H$  is father of K.  
 $K \div N \rightarrow K$  is daughter of N.  
N is mother of K.
  3. (a)  $F - R \rightarrow F$  is husband of R.  
 $R + H \rightarrow R$  is sister of H.  
 $H \div T \rightarrow H$  is daughter of T.  
F is son-in-law of T.
  4. (d)  $G \times T \rightarrow G$  is father of T.  
 $T + Q \rightarrow T$  is sister of Q.  
 $Q \div M \rightarrow Q$  is daughter of M  
M is wife of G.

 LOGICAL REASONING 13



1. (d)  $1 + 2 = \Rightarrow$  Odd Number  
 $2 + 8 = 1 + 0 =$  Odd Number  
 $5 + 2 = 7 \Rightarrow$  Odd Number  
 $6 + 8 = 14 \Rightarrow 1 + 4 = 5$   
 $\Rightarrow$  Odd Number  
 $9 + 6 = 15 \Rightarrow 1 + 5 = 6$   
 $\Rightarrow$  Even Number

2. (c) The colour of sky is blue. But here blue has been called yellow.

3. (c) None.

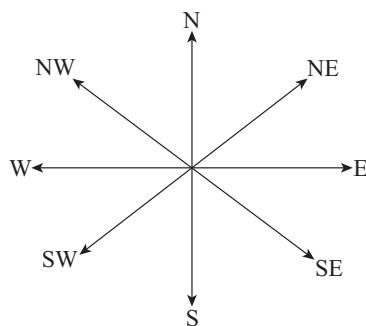
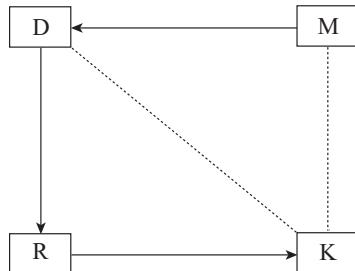
4. (a) M O D E L D E A R  
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓  
5 1 3 # 2 3 # % 8



Therefore,

L	O	A	D
↓	↓	↓	↓
2	1	%	3

5. (d)



#### LOGICAL REASONING 14



1. (d) D and M are respectively the first and second to the left of B.
2. (d) M is third to the right of T.
3. (a) P is to the immediate left of H.
4. (c) M is second to the left of B.
5. (b) M is second to the left of B.

#### LOGICAL REASONING 15



Following is the arrangement:

<i>Student</i>	<i>Class</i>	<i>Favourite Colour</i>
P	II	Green
Q	III	Black
R	IV	Red
S	I	Pink
T	VI	Yellow
M	V	Blue

**LOGICAL REASONING 16**

<i>Days</i>	<i>Lectures</i>
Monday	Organizational Behavior
Tuesday	Psychology
Wednesday	Statistics
Thursday	Computer Science
Friday	Research Methods
Saturday	OFF
Sunday	Economics

1. (d) Economics was the last lecture.
2. (d) The code would be 5–1.
3. (d) Research Methods was organised on Friday.
4. (c) There were three lectures between Psychology and Economics.
5. (c) Computer Science was scheduled on Thursday.
6. (d) Saturday was the Off Day.
7. (a) He should attend Computer Science and Research Methods.

**LOGICAL REASONING 17**

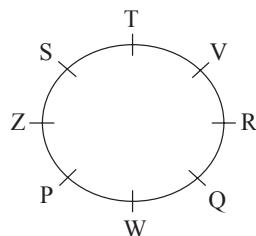
<i>Person</i>	<i>Department</i>	<i>Scale</i>
A	Finance	III
B	Sales	III
C	Finance	III
D	Sales	I
E	Finance	III
F	Operations	II
G	Sales	I
H	Operations	II

1. (d) The combination Finance – E – III is correct.
2. (c) B, D and G work in Sales department.
3. (b) H belongs to scale II.
4. (c) G belongs to scale I.
5. (c) C belongs to scale III.

## LOGICAL REASONING 18



Following is the arrangement:



1. (c) V is sitting between R and T.
2. (b) Z is second to the right of T.
3. (d) P is second to the right of S.  
Also, P is sixth of the left of S.
4. (c) S is to the immediate left of Z.
5. (a) R is second to the right of W.

## LOGICAL REASONING 19



1. (d) T is third to the right of Z.
2. (d) W, the wife of Z is an immediate neighbour of S.
3. (b) Y is the wife of V.
4. (b) V, a male is to the immediate left of R and Z. a male is to the immediate right of R.
5. (d) All the statements are true.
6. (d) W and Y are immediate neighbours of T.
7. (c) When counted in anticlockwise direction, R and Z are sitting between V and S.
8. (a) Q sits exactly between V and Y.

## LOGICAL REASONING 20



<b>Friend</b>	<b>College</b>	<b>Profession</b>
A	Y	Fashion Designer
B	Y	Actor
C	Y	Architect
D	Z	Teacher
E	X	Medicine
F	Z	Engineer
G	X	Businessman



1. (d) D and F have studied in College Z.
2. (c) A, B and C were students of College Y.
3. (a) F's profession is Engineering.
4. (a) E is in the profession of Medicines.
5. (d) A is a Fashion designer.
6. (d) The combination D – Z – Teaching is correct.
7. (b) D is a Teacher.

### LOGICAL REASONING 21



1. (b) Amrita took three years to complete her PhD.
2. (d) Smita took six or seven years to complete her PhD.
3. (d) Deepa took eight years to complete her PhD.

### LOGICAL REASONING 22



1. (c) Total number of students in Physics and statistics together =  $50 + 50 + 100 + 150 = 350$
2. (c) Required ratio =  $100 : 120 = 5 : 6$
3. (a) Required difference =  $100 - 50 = 50$
4. (d) Botany  $\Rightarrow$  Girls = 120  
Physics  $\Rightarrow$  Boys = 50
5. (d) Required percentage =  $\frac{100}{50} \times 100 = 200$

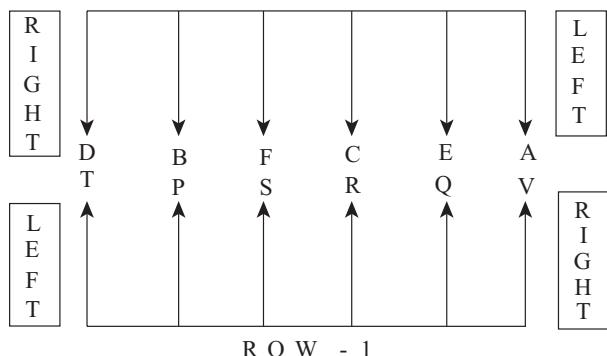
### LOGICAL REASONING 23



Days	Person	Country
Monday	Samir	South Africa
Tuesday	Nita	Australia
Wednesday	Gifty	France
Thursday	Paul	Australia
Friday	Richa	South Africa
Saturday	Shweta	France
Sunday	Mohit	South Africa

1. (c) Nita will travel on Wednesday.
2. (a) Shweta traveled on Saturday.
3. (d) None of the combinations is true.
4. (d) Nita traveled on Tuesday to Australia.
5. (c) Mohit traveled on Sunday.

## LOGICAL REASONING 24



1. (a) T faces D.
2. (b) T and A are sitting at extreme ends of the rows.
3. (d) D is far away from R.
4. (b) Except S, all other are sitting at the extreme ends of the rows.
5. (b) Two persons – P and S – are seated between R and T.
6. (c) E faces Q.
7. (d) D and F are immediate neighbours of B.

## LOGICAL REASONING 25

1. (a) A is a Businessman.
2. (c) E is the Politician. F is second to the right of E.
3. (c) Doctor (H) sits exactly between the Teacher (F) and the Engineer (C).
4. (d) Doctor (H) sits second to the right of Businessman (A).
5. (b) G is a Pilot.
6. (d) Only the combination E – Politician is correct.
7. (d) E is the Politician.

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# PART

# 5

## CAT PAPERS

CAT 2002

CAT 2003

CAT 2004

CAT 2005

CAT 2006

CAT 2007

CAT 2008

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# CAT 2002



## LEARNING Objectives

1. Read the instructions carefully before attempting the questions.
2. Do your rough work on Test Booklet and not on the Answer Sheet.
3. Total Questions = 100
4. There is negative marking.

### ➤ SECTION 1—VERBAL ABILITY

**Direction for questions 1 to 5:** For the word given at the top of each table match the dictionary definitions on the left (A, B, C, D) with their corresponding usage on the right (E, F, G, H). Out of the four possibilities given in the boxes below the table, select the one that has all the definitions and their usages correctly matched.

#### □ 1. Measure

	<i>Dictionary definition</i>		<i>Usage</i>
A	Size or quantity found by measuring.	E	A measure was instituted to prevent outsiders from entering the campus.
B	Vessel of standard capacity.	F	Sheila was asked to measure each item that was delivered.
C	Suitable action.	G	The measure of the cricket pitch was 22 yards.

	<i>Dictionary definition</i>		<i>Usage</i>
D	Ascertain extent or quantity.	H	Ramesh used a measure to take out one litre of oil.

I
A
H
B
F
C
E
D
G

2
A
G
B
E
C
F
D
H

3
A
G
B
H
C
E
D
F

4
A
F
B
H
C
E
D
G

#### □ 2. Bound

	<i>Dictionary definition</i>		<i>Usage</i>
A	Obliged, constrained	E	Dinesh felt bound to walk out when the discussion turned to kickbacks.
B	Limiting value	F	Buffeted by contradictory forces he was bound to lose his mind.

<i>Dictionary definition</i>		<i>Usage</i>
C	Move in a specified direction.	G Vidya's story strains the bounds of credulity.
D	Destined or certain to be	H Bound for a career in law, Jyoti was reluctant to study Milton.

<i>1</i>	
A	F
B	H
C	G
D	E

<i>2</i>	
A	H
B	G
C	E
D	F

<i>3</i>	
A	F
B	H
C	G
D	E

<i>4</i>	
A	H
B	E
C	G
D	F

### □ 5. Turn

<i>Dictionary definition</i>		<i>Usage</i>	
A	Give new direction to	E	It was now his turn to be angry.
B	Send	F	Leena never turned away a beggar.
C	Change in form	G	Ashish asked Laxman to turn his face to the left.
D	Opportunity coming successively for each person.	H	The old school building has been turned into a museum.

<i>1</i>	
A	H
B	E
C	F
D	G

<i>2</i>	
A	G
B	F
C	E
D	H

<i>3</i>	
A	G
B	E
C	F
D	H

<i>4</i>	
A	G
B	F
C	H
D	E

**Direction** for questions 6 to 10: *The sentences given in each question, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of sentences from among the given choices to construct a coherent paragraph.*

- Q 6. A. Branded disposable diapers are available at many supermarkets and drug stores.  
 B. If one supermarket sets a higher price for a diaper, customers may buy that brand elsewhere.  
 C. By contrast, the demand for private-label products may be less price sensitive since it is available only at a corresponding supermarket chain.  
 D. So, the demand for branded diapers at any particular store may be quite price sensitive.  
 E. For instance, only SavOn Drugs stores sell SavOn Drugs diapers.  
 F. Then, stores should set a higher incremental margin percentage for private-label diapers.  
 (a) ABCDEF      (b) ABCEDF  
 (c) ADBCEF      (d) AEDBCF
- Q 7. A. Having a strategy is a matter of discipline.  
 B. It involves the configuration of a tailored value chain that enables a company to offer unique value.

### □ 4. Deal

<i>Dictionary definition</i>		<i>Usage</i>
A	Manage, attend to	E Dinesh insisted on dealing the cards.
B	Stock, sell	F This contract deals with handmade cards.
C	Give out to a number of people	G My brother deals in cards.
D	Be concerned with	H I decided not to deal with handmade cards.

- C. It requires a strong focus on profitability and a willingness to make tough trade-offs in choosing what not to do.
  - D. Strategy goes far beyond the pursuit of best practices.
  - E. A company must stay the course even during times of upheaval, while constantly improving and extending its distinctive positioning.
  - F. When a company's activities fit together as a self-reinforcing system, any competitor wishing to imitate a strategy must replicate the whole system.
- (a) ACEDBF      (b) ACBDEF  
 (c) DCBEFA      (d) ABCEDF

- Q 8. A. As officials, their vision of a country should not run too far beyond that of the local people with whom they have to deal.
- B. Ambassadors have to choose their words.
  - C. To say what they feel they have to say, they appear to be denying or ignoring part of what they know.
  - D. So, with ambassadors as with other expatriates in black Africa, there appears at a first meeting a kind of ambivalence.
  - E. They do a specialized job and it is necessary for them to live ceremonial lives.
- (a) BCEDA      (b) BEDAC  
 (c) BEADC      (d) BCDEA

- Q 9. A. "This face off will continue for several months given the strong convictions on either side," says a senior functionary of the high-powered task force on drought.
- B. During the past week-and-a-half, the Central Government has sought to deny some of the earlier apprehensions over the impact of drought.
  - C. The recent revival of the rains had led to the emergence of a line of divide between the two.
  - D. The state governments, on the other hand, allege that the Centre is down playing the crisis only to evade its full responsibility of financial assistance that is required to alleviate the damage.
  - E. Shrill alarm about the economic impact of an inadequate monsoon had been sounded by the Centre as well as most of the states, in late July and early August.
- (a) EBCDA      (b) DBACE  
 (c) BDCAE      (d) ECBDA

- Q 10. A. This fact was established in the 1970s by French survey expeditions to Equator near the Equator and Lapland in the Arctic, which found that around the middle of the earth the arc was about a kilometer shorter.
- B. One of the unsettled scientific questions in the late 18th century was the exact nature of the shape of the earth.
  - C. The length of one-degree arc would be less near the equatorial latitudes than at the poles.
  - D. One way of doing that is to determine the length of the arc along a chosen longitude or meridian at one-degree latitude separation.

- E. While it was generally known that the earth was not a sphere but an 'oblate spheroid', more curved at the equator and flatter at the poles, the question of 'how much more' was yet to be established.
- (a) BECAD  
 (b) BEDCA  
 (c) EDACB  
 (d) EBDCA

**Direction for questions 11 to 15:** Fill the gaps in the passages below with the most appropriate word from the options given for each gap. The right words are the ones used by the author. Be guided by the author's overall style and meaning when you choose the answers.

Von Neumann and Morgenstern assume a decision framework in which all options are thoroughly considered, each option being independent of the others, with a numerical value derived for the utility of each possible outcome (these outcomes reflecting, in turn, all possible combinations of choices). The decision is then made to maximize the expected utility.

(11) \_\_\_\_\_, such a model reflects major simplifications of the way decisions are made in the real world. Humans are not able to process information as quickly and effectively as the model assumes; they tend not to think (12) \_\_\_\_\_ as easily as the model calls for; they often deal with a particular option without really assessing its (13) \_\_\_\_\_, and when they do assess alternatives, they may be extremely nebulous about their criteria of evaluation.

- Q 11. (a) regrettably      (b) firstly  
 (c) obviously      (d) apparently
- Q 12. (a) quantitatively      (b) systematically  
 (c) scientifically      (d) analytically
- Q 13. (a) implications      (b) disadvantages  
 (c) utility      (d) alternatives

In a large company, (14) \_\_\_\_\_ people is about as common as using a gun or a switch-blade to (15) \_\_\_\_\_. an argument. As a result, most managers have little or no experience of firing people, and they find it emotionally traumatic; as a result, they often delay the act interminably, much as an unhappy spouse will prolong a bad marriage. And when the firing is done, it is often done clumsily, with far worse side effects than are necessary.

Do the world-class software organizations have a different way of firing people? No, but they do the deed swiftly, humanely, and professionally.

The key point here is to view the fired employee as a "failed product" and to ask how the process (16) \_\_\_\_\_ such a phenomenon in the first place.

- Q 14. (a) dismissing      (b) punishing  
 (c) firing      (d) admonishing
- Q 15. (a) resolve      (b) thwart  
 (c) defeat      (d) close
- Q 16. (a) derived      (b) engineered  
 (c) produced      (d) allowed

**Direction for questions 17 to 20:** In each of the questions below, four different ways of writing a sentence are indicated. Choose the best way of writing the sentence.

- Q 17. A. The main problem with the notion of price discrimination is that it is not always a bad thing, but that it is the monopolist who has the power to decide who is charged what price.  
 B. The main problem with the notion of price discrimination is not that it is always a bad thing, it is the monopolist who has the power to decide who is charged what price.  
 C. The main problem with the notion of price discrimination is not that it is always a bad thing, but that it is the monopolist who has the power to decide who is charged what price.  
 D. The main problem with the notion of price discrimination is not it is always a bad thing, but that it is the monopolist who has the power to decide who is charged what price.  
 (a) A      (b) B      (c) C      (d) D

- Q 18. A. A symbiotic relationship develops among the contractors, bureaucracy and the politicians, and by a large number of devices costs are artificially escalated and black money is generated by underhand deals.  
 B. A symbiotic relationship develops among contractors, bureaucracy and politicians, and costs are artificially escalated with a large number of devices and black money is generated through underhand deals.  
 C. A symbiotic relationship develops among contractors, bureaucracy and the politicians, and by a large number of devices costs are artificially escalated and black money is generated on underhand deals.  
 D. A symbiotic relationship develops among the contractors, bureaucracy and politicians, and by large number of devices costs are artificially escalated and black money is generated by underhand deals.  
 (a) A      (b) B      (c) C      (d) D

- Q 19. A. The distinctive feature of tariffs and export subsidies is that they create difference of prices at which goods are traded on the world market and their price within a local market.  
 B. The distinctive feature of tariffs and export subsidies is that they create a difference of prices at which goods are traded with the world market and their prices in the local market.  
 C. The distinctive feature of tariffs and export subsidies is that they create a difference between prices at which goods are traded on the world market and their prices within a local market.  
 D. The distinctive feature of tariffs and export subsidies is that they create a difference across prices at which goods are traded with the world market and their prices within a local market.  
 (a) A      (b) B      (c) C      (d) D

- Q 20. A. Any action of government to reduce the systemic risk inherent in financial markets will also reduce the risks that private operators perceive and thereby encourage excessive hedging.  
 B. Any action by government to reduce the systemic risk inherent in financial markets will also reduce the risks that private operators perceive and thereby encourage excessive gambling.  
 C. Any action by government to reduce the systemic risk inherent due to financial markets will also reduce the risk that private operators perceive and thereby encourages excessive hedging.  
 D. Any action of government to reduce the systemic risk inherent in financial markets will also reduce the risks that private operators perceive and thereby encourages excessive gambling.  
 (a) A      (b) B      (c) C      (d) D

**Direction for questions 21 to 25:** For each of the words below, a context is provided. From the alternatives given pick the word or phrase that is closest in meaning in the given context.

- Q 21. **Opprobrium:** The police officer appears oblivious to the opprobrium generated by his blatantly partisan conduct.  
 (a) Harsh criticism    (b) Acute distrust  
 (c) Bitter enmity    (d) Stark oppressiveness
- Q 22. **Portend:** It appears to many that the US “war on terrorism” portends trouble in the Gulf.  
 (a) Introduces      (b) Evokes  
 (c) Spells            (d) Bodes
- Q 23. **Prevaricate:** When a videotape of her meeting was played back to her and she was asked to explain her presence there, she started prevaricating.  
 (a) Speaking evasively  
 (b) Speaking violently  
 (c) Lying furiously  
 (d) Throwing a tantrum
- Q 24. **Restive:** The crowd became restive when the minister failed to appear even by 10 pm.  
 (a) Violent            (b) Angry  
 (c) Restless          (d) Distressed

- Q 25. **Ostensible:** Manohar’s ostensible job was to guard the building at night.  
 (a) Apparent          (b) Blatant  
 (c) Ostentatious     (d) Insidious

**Direction for questions 26 to 50:** Each of the six passages given below is followed by questions. Choose the best answer for each question.

## PASSAGE 1

The production of histories of India has become very frequent in recent years and may well call for some

explanation. Why so many and why this one in particular? The reason is a twofold one: changes in the Indian scene requiring a re-interpretation of the facts and changes in attitudes of historians about the essential elements of Indian history. These two considerations are in addition to the normal fact of fresh information, whether in the form of archeological discoveries throwing fresh light on an obscure period or culture, or the revelations caused by the opening of archives or the release of private papers. The changes in the Indian scene are too obvious to need emphasis. Only two generations ago British rule seemed to most Indian as well as British observers likely to extend into an indefinite future; now there is a teenage generation which knows nothing of it. Changes in the attitudes of historians have occurred everywhere, changes in attitudes to the content of the subject as well as to particular countries, but in India there have been some special features. Prior to the British, Indian historiographers were mostly Muslims, who relied, as in the case of Sayyid Ghulam Hussain, on their own recollection of events and on information from friends and men of affairs. Only a few like Abu'l Fazl had access to official papers. These were personal narratives of events, varying in value with the nature of the writer. The early British writers were officials. In the eighteenth century they were concerned with some aspect of Company policy, or, like Robert Orme in his *Military Transactions*, gave a straight narrative in what was essentially a continuation of the Muslim tradition. In the early nineteenth century the writers were still, with two notable exceptions, officials, but they were now engaged in chronicling, in varying moods of zest, pride, and awe, the rise of the British power in India to supremacy. The two exceptions were James Mill, with his critical attitude to the Company and John Marchman, the Baptist missionary. But they, like the officials, were anglo-centric in their attitude, so that the history of modern India in their hands came to be the history of the rise of the British in India.

The official school dominated the writing of Indian history until we get the first professional historian's approach, Ramsay Muir and P.E. Roberts in England and H. H. Dodwell in India. Then Indian historians trained in the English school joined in, of whom the most distinguished was Sir Jadunath Sarkar and the other notable writers: Surendranath Sen, Dr Radhakumud Mukerji, and Professor Nilakanta Sastri. They, it may be said, restored India to Indian history, but their bias was mainly political. Finally have come the nationalists who range from those who can find nothing good or true in the British to sophisticated historical philosophers like K.M. Panikker.

Along with types of historians with their varying bias have gone changes in the attitude to the content of Indian history. Here Indian historians have been influenced both by their local situation and by changes of thought elsewhere. It is in this field that this work can claim some attention since it seeks to break new ground, or perhaps to deepen a freshly turned furrow in the field of Indian history. The early official historians were content with the glamour and drama of political history from Plassey to the Mutiny, from Duplex to the Sikhs. But when the *raj* was

settled down, glamour departed from politics, and they turned to the less glorious but more solid ground of administration. Not how India was conquered but how it was governed was the theme of this school of historians. It found its archpriest in H.H. Dodwell, its priestess in Dame Lilian Penson, and its chief shrine in the Volume VI of the *Cambridge History of India*. Meanwhile in Britain other currents were moving, which led historical study into the economic and social fields. R.C. Dutt entered the first of these currents with his *Economic History of India* to be followed more recently by the whole group of Indian economic historians. W.E. Moreland extended these studies to the Mughal Period. Social history is now being increasingly studied and there is also of course a school of nationalist historians who see modern Indian history in terms of the rise and the fulfillment of the national movement.

All these approaches have value, but all share in the quality of being compartmental. It is not enough to remove political history from its pedestal of being the only kind of history worth having if it is merely to put other types of history in its place. Too exclusive an attention to economic, social, or administrative history can be as sterile and misleading as too much concentration on politics. A whole subject needs a whole treatment for understanding. A historian must dissect his subject into its elements and then fuse them together again into an integrated whole. The true history of a country must contain all the features just cited but must present them as parts of a single consistent theme.

- Q 26. Which of the following may be the closest in meaning to the statement "restored India to Indian history"?
- Indian historians began writing Indian history.
  - Trained historians began writing Indian history.
  - Writing India-centric Indian history began.
  - Indian history began to be written in India.
- Q 27. Which of the following is the closest implication of the statement "to break new ground, or perhaps to deepen a freshly turned furrow"?
- Dig afresh or dig deeper.
  - Start a new stream of thought or help establish a recently emerged perspective.
  - Begin or conduct further work on existing archeological sites to unearth new evidence.
  - Begin writing a history free of any biases.
- Q 28. Historians moved from writing political history to writing administrative history because:
- Attitudes of the historians changed.
  - The *raj* was settled down.
  - Politics did not retain its past glamour.
  - Administrative history was based on solid ground.
- Q 29. According to the author, which of the following is not among the attitudes of Indian historians of Indian origin?
- Writing history as personal narratives.
  - Writing history with political bias.
  - Writing non-political history due to lack of glamour.
  - Writing history by dissecting elements and integrating them again.

Q 30. In the table given below, match the historians to the approaches taken by them:

A	Administrative	E	Robert Orme
B	Political	F	H. H. Dodwell
C	Narrative	G	Radha Kumud Mukherji
D	Economic	H	R. C. Dutt

1	2	3	4
A F	A G	A E	A F
B G	B F	B F	B H
C E	C E	C G	C E
D H	D H	D H	D G

## PASSAGE 2

There are a seemingly endless variety of laws, restrictions, customs and traditions that affect the practice of abortion around the world. Globally, abortion is probably the single most controversial issue in the whole area of women's rights and family matters. It is an issue that inflames women's right groups, religious institutions, and the self-proclaimed "guardians" of public morality. The growing worldwide belief is that the right to control one's fertility is a basic human right. This has resulted in a worldwide trend towards liberalization of abortion laws. Forty per cent of the world's population lives in countries where induced abortion is permitted on request. An additional 25 per cent live in countries where it is allowed if the woman's life would be endangered if she went to full term with her pregnancy. The estimate is that between 26 and 31 million legal abortions were performed in 1987. However, there were also between 10 and 22 million illegal abortions performed in that year.

Feminists have viewed the patriarchal control of women's bodies as one of the prime issues facing the contemporary women's movement. They observe that the definition and control of women's reproductive freedom has always been the province of men. Patriarchal religion, as manifest in Islamic fundamentalism "traditionalist Hindu practice, orthodox Judaism, and Roman Catholicism, has been an important historical contributory factor for this and continues to be an important presence in contemporary societies. In recent times, governments, usually controlled by men, have "given" women the right to contraceptive use and abortion access when their countries were perceived to have an overpopulation problem. When these countries are perceived to be under populated, that right has been absent. Until the nineteenth century, a woman's rights to an abortion followed English common law; it could only be legally challenged if there was a "quickenings", when the first movements of the foetus could be felt. In 1800, drugs to induce abortions were widely advertised in local newspapers. By 1900, abortion was banned in every state except to save the life of the mother. The change was strongly influenced by the

medical profession, which focused its campaign ostensibly on health and safety issues for pregnant women and the sanctity of life. Its position was also a means of control of non-licensed medical practitioners such as midwives and women healers who practiced abortion.

The anti-abortion campaign was also influenced by political considerations. The large influx of eastern and southern European immigrants with their large families was seen as a threat to the population balance of the future United States. Middle and Upper class Protestants were advocates of abortion as a form of birth control. By supporting abortion prohibitions the hope was that these Americans would have more children and thus prevent the tide of immigrant babies from overwhelming the demographic characteristics of Protestant America.

The anti-abortion legislative position remained in effect in the United States through the first sixty-five years of the twentieth century. In the early 1960s, even when it was widely known that the drug thalidomide taken during pregnancy to alleviate anxiety was shown to contribute to the formation of deformed "flipper-like" hands or legs of children, abortion was illegal in the United States. A second health tragedy was the severe outbreak of rubella during the same time period, which also resulted in major birth defects. These tragedies combined with a change of attitude towards a woman's right to privacy lead a number of states to pass abortion-permitting legislation.

On one side of the controversy are those who call themselves "pro-life". They view the foetus as a human life rather than as an unformed complex of cells; therefore, they hold to the belief that abortion is essentially murder of an unborn child. These groups cite both legal and religious reasons for their opposition to abortion. Pro-lifers point to the rise in legalized abortion figures and see this as morally intolerable. On the other side of the issue are those who call themselves "pro-choice". They believe that women, not legislators or judges, should have the right to decide whether and under what circumstances they will bear children. Pro-choicers are of the opinion that laws will not prevent women from having abortions and cite the horror stories of the past when many women died at the hands of "back-room" abortionists and in desperate attempts to self-abort. They also observe that legalized abortion is especially important for rape victims and incest victims who became pregnant. They stress physical and mental health reasons why women should not have unwanted children.

To get a better understanding of the current abortion controversy, let us examine a very important work by Kristin Luker titled *Abortion and the Politics of Motherhood*. Luker argues that female pro-choice and pro-life activists hold different world views regarding gender, sex, and the meaning of parenthood. Moral positions on abortions are seen to be tied intimately to views on sexual behavior, the care of children, family life, technology, and the importance of the individual. Luker identifies "pro-choice" women as educated, affluent, and liberal. Their contrasting counterparts, "pro-life" women, support traditional concepts of women as wives and mothers. It would be instructive to sketch out the differences in the world views of these two sets of women. Luker examines California, with its liberalized abortion law, as a case history. Public

documents and newspaper accounts over a twenty-year period were analyzed and over 200 interviews were held with both pro-life and pro-choice activists.

Luker found that pro-life and pro-choice activists have intrinsically different views with respect to gender. Prolife women have a notion of public and private life. The proper place for men is in the public sphere of work; for women, it is the private sphere of the home. Men benefit through the nurturance of women; women benefit through the protection of men. Children are seen to be the ultimate beneficiaries of this arrangement by having the mother as a full-time loving parent and by having clear role models. Pro-choice advocates reject the view of separate spheres. They object to the notion of the home being the "women's sphere". Women's reproductive and family roles are seen as potential barriers to full equality. Motherhood is seen as a voluntary, not a mandatory or "natural" role.

In summarizing her findings, Luker believes that women become activists in either of the two movements as the end result of lives that center around different conceptualizations of motherhood. Their beliefs and values are rooted to the concrete circumstances of their lives, their educations, incomes, occupations, and the different marital and family choices that they have made. They represent two different world views of women's roles in contemporary society and as such the abortion issues represent the battleground for the justification of their respective views.

**Q 31.** According to your understanding of the author's arguments, which countries are more likely to allow abortion?

- (a) India and China
- (b) Australia and Mongolia
- (c) Cannot be inferred from the passage
- (d) Both (a) and (b)

**Q 32.** Which amongst these was not a reason for banning of abortions by 1900?

- (a) Medical professionals stressing the health and safety of women.
- (b) Influx of eastern and southern European immigrants.
- (c) Control of unlicensed medical practitioners.
- (d) A tradition of matriarchal control.

**Q 33.** A pro-life woman would advocate abortion if:

- (a) The mother of an unborn child is suicidal.
- (b) Bearing a child conflicts with a woman's career prospects.
- (c) The mother becomes pregnant accidentally.
- (d) None of the above

**Q 34.** Pro-choice women object to the notion of the home being the "women's sphere" because they believe:

- (a) That the home is a "Joint Sphere" shared between men and women.
- (b) That reproduction is a matter of choice for women.
- (c) That men and women are equal.
- (d) Both (b) and (c)

**Q 35.** Two health tragedies affecting US society in the 1960s led to:

- (a) A change in attitude to women's right to privacy.
- (b) Retaining the anti-abortion laws with some exceptions.
- (c) Scrapping of anti-abortion laws.
- (d) Strengthening of the pro-life lobby.

**Q 36.** Historically, the pro-choice movement has got support from \_\_\_\_\_ among others.

- (a) Major patriarchal religions
- (b) Countries with low population density
- (c) Medical profession
- (d) None of the above

### PASSAGE 3

The conceptions of life and the world which we call 'philosophical' are a product of two factors: one, inherited religious and ethical conceptions; the other, the sort of investigation which may be called 'scientific', using this word in its broadest sense. Individual philosophers have differed widely in regard to the proportions in which these two factors entered into their systems, but it is the presence of both, in some degree, that characterizes philosophy.

'Philosophy' is a word which has been used in many ways, some wider, some narrower. I propose to use it in a very wide sense, which I will now try to explain.

Philosophy, as I shall understand the word, is something intermediate between theology and science. Like theology, it consists of speculations on matters as to which definite knowledge has, so far, been unascertainable; but like science, it appeals to human reason rather than to authority, whether that of tradition or that of revelation. All definite knowledge—so I should contend—belongs to science; all dogma as to what surpasses definite knowledge belongs to theology. But between theology and science there is a 'No man's Land', exposed to attack from both sides; this 'No Man's Land' is philosophy. Almost all the questions of most interest to speculative minds are such as science cannot answer, and the confident answers of theologians no longer seem so convincing as they did in former centuries. Is the world divided into mind and matter, and if so, what is mind and what is matter? Is mind subject to matter, or is it possessed of independent powers? Has the universe any unity or purpose? Is it evolving towards some goal? Are there really laws of nature, or do we believe in them only because of our innate love of order? Is man what he seems to the astronomer, a tiny lump of carbon and water impotently crawling on a small and unimportant planet? Or is he what he appears to Hamlet? Is he perhaps both at once? Is there a way of living that is noble and another that is base, or are all ways of living merely futile? If there is a way of living that is noble, in what does it consist, and how shall we achieve it? Must the good be eternal in order to deserve to be valued, or is it worth seeking even if the universe is inexorably moving towards death? Is there such a thing as wisdom, or is what seems such merely the ultimate refinement of folly? To such questions no answer can be found in the laboratory. Theologies have professed to give answers,

all to definite; but their definiteness causes modern minds to view them with suspicion. The studying of these questions, if not the answering of them, is the business of philosophy.

Why, then, you may ask, waste time on such insoluble problems? To this one may answer as a historian, or as an individual facing the terror of cosmic loneliness.

The answer of the historian, in so far as I am capable of giving it, will appear in the course of this work. Ever since men became capable of free speculation, their actions in innumerable important respects, have depended upon their theories as to the world and human life, as to what is good and what is evil. This is as true in the present day as at any former time. To understand an age or a nation, we must understand its philosophy, and to understand its philosophy we must ourselves be in some degree philosophers. There is here a reciprocal causation: the circumstances of men's lives do much to determine their philosophy, but, conversely, their philosophy does much to determine their circumstances.

There is also, however, a more personal answer. Science tells us what we can know, but what we can know is little, and if we forget how much we cannot know we may become insensitive to many things of very great importance. Theology, on the other hand, induces a dogmatic belief that we have knowledge, where in fact we have ignorance, and by doing so generates a kind of impudent insolence towards the universe. Uncertainty, in the presence of vivid hopes and fears, is painful, but must be endured if we wish to live without the support of comforting fairy tales. It is not good either to forget the questions that philosophy asks, or to persuade ourselves that we have found indubitable answers to them. To teach how to live without certainty, and yet without being paralyzed by hesitation, is perhaps the chief thing that philosophy, in our age, can still do for those who study it.

**Q 37.** The purpose of philosophy is to:

- (a) Reduce uncertainty and chaos.
- (b) Help us to cope with uncertainty and ambiguity.
- (c) Help us to find explanations for uncertainty.
- (d) Reduce the terror of cosmic loneliness.

**Q 38.** Based on this passage what can be concluded about the relation between philosophy and science?

- (a) The two are antagonistic.
- (b) The two are complementary.
- (c) There is no relation between the two.
- (d) Philosophy derives from science.

**Q 39.** From reading the passage, what can be concluded about the profession of the author? He is most likely **not** to be a:

- |               |                 |
|---------------|-----------------|
| (a) Historian | (b) Philosopher |
| (c) Scientist | (d) Theologian  |

**Q 40.** According to the author, which of the following statements about the nature of the universe must be definitely true?

- (a) The universe has unity.
- (b) The universe has a purpose.
- (c) The universe is evolving towards a goal.
- (d) None of these

## PASSAGE 4

Cells are the ultimate multi-taskers: they can switch on genes and carry out their orders, talk to each other, divide in two and much more, all at the same time. But they could not do any of these tricks without a power source to generate movement. The inside of a cell bustles with more traffic than Delhi roads, and, like all vehicles, the cell's moving parts need engines. Physicists and biologists have looked "under the hood" of the cell and laid out the nuts and bolts of molecular engines.

The ability of such engines to convert chemical energy into motion is the envy of nanotechnology researchers looking for ways to power molecule-sized devices. Medical researchers also want to understand how these engines work. Because these molecules are essential for cell division, scientists hope to shut down the rampant growth of cancer cells by deactivating certain motors. Improving motor-driven transport in nerve cells may also be helpful for treating diseases such as Alzheimer's, Parkinson's or ALS, also known as Lou Gehrig's disease.

We would not make it far in life without motor proteins. Our muscles would not contract. We could not grow, because the growth process requires cells to duplicate their machinery and pull the copies apart. And our genes would be silent without the services of messenger RNA, which carries genetic instructions over to the cell's protein-making factories. The movements that make these cellular activities possible occur along a complex network of threadlike fibers, or polymers, along which bundles of molecules travel like trams. The engines that power the cell's freight are three families of proteins, called myosin, kinesin and dynein. For fuel, these proteins bum molecules of ATP, which cells make when they break down the carbohydrates and fats from the foods we eat. The energy from burning ATP causes changes in the proteins' shape that allow them to heave themselves along the polymer track. The results are impressive: In one second, these molecules can travel between 50 and 100 times their own diameter. If a car with a 5-foot-wide engine were as efficient, it would travel 170 to 340 kmph.

Ronald Vale, a researcher at the Howard Hughes Medical Institute and the University of California at San Francisco, and Ronald Milligan of the Scripps Research Institute have realized a long-awaited goal by reconstructing the process by which myosin and kinesin move, almost down to the atom. The dynein motor, on the other hand, is still poorly understood. Myosin molecules, best known for their role in muscle contraction, form chains that lie between filaments of another protein called actin. Each myosin molecule has a tiny head that pokes out from the chain like oars from a canoe. Just as rowers propel their boat by stroking their oars through the water, the myosin molecules stick their heads into the actin and hoist themselves forward along the filament. While myosin moves along in short strokes, its cousin kinesin walks steadily along a different type of filament called a microtubule. Instead of using a projecting head as a lever, kinesin walks on two "legs." Based on these differences, researchers used to think that myosin and kinesin were virtually unrelated. But newly discovered similarities in the motors' ATP-processing machinery now suggest that they

share a common ancestor-molecule. At this point, scientists can only speculate as to what type of primitive cell-like structure this ancestor occupied as it learned to burn ATP and use the energy to change shape. "We'll never really know, because we cannot dig up the remains of ancient proteins, but that was probably a big evolutionary leap," says Vale.

On a slightly larger scale, lone cells like sperm or infectious bacteria are prime movers that resolutely push their way through to other cells. As L. Mahadevan and Paul Matsudaira of the Massachusetts Institute of Technology explain, the engines in this case are springs or ratchets that are clusters of molecules, rather than single proteins like myosin and kinesin. Researchers do not yet fully understand these engines' fueling process or the details of how they move, but the result is a force to be reckoned with. For example, one such engine is a spring like stalk connecting a single-celled organism called a vorticellid to the leaf fragment it calls home. When exposed to calcium, the spring contracts, yanking the vorticellid down at speeds approaching 3 inches (8 centimeters) per second.

Springs like this are coiled bundles of filaments that expand or contract in response to chemical cues. A wave of positively charged calcium ions, for example, neutralizes the negative charges that keep the filaments extended. Some sperm use spring like engines made of actin filaments to shoot out a barb that penetrates the layers that surround an egg. And certain viruses use a similar apparatus to shoot their DNA into the host's cell. Ratchets are also useful for moving whole cells, including some other sperm and pathogens. These engines are filaments that simply grow at one end, attracting chemical building blocks from nearby. Because the other end is anchored in place, the growing end pushes against any barrier that gets in its way.

Both springs and ratchets are made up of small units that each move just slightly, but collectively produce a powerful movement. Ultimately, Mahadevan and Matsudaira hope to better understand just how these particles create an effect that seems to be so much more than the sum of its parts. Might such an understanding provide inspiration for ways to power artificial nano-sized devices in the future? "The short answer is absolutely," says Mahadevan. "Biology has had a lot more time to evolve enormous richness in design for different organisms. Hopefully, studying these structures will not only improve our understanding of the biological world, it will also enable us to copy them, take apart their components and re-create them for other purposes."

- Q 41. According to the author, research on the power source of movement in cells can contribute to:
- Control over the movement of genes within human systems.
  - The understanding of nanotechnology.
  - Arresting the growth of cancer in a human being.
  - The development of cures for a variety of diseases.

- Q 42. The author has used several analogies to illustrate his arguments in the article. Which of the following pairs of words are examples of the analogies used?

- Cell activity and vehicular traffic.
  - Polymers and tram tracks.
  - Genes and canoes.
  - Vorticellids and ratchets.
- A and B
  - B and C
  - A and D
  - A and C

Q 43. Read the five statements below: A, B, C, D, and E. From the options given, select the one which includes a statement that is **not** representative of an argument presented in the passage.

- Sperms use spring like engines made of actin filament.
  - Myosin and kinesin are unrelated.
  - Nanotechnology researchers look for ways to power molecule-sized devices.
  - Motor proteins help muscle contraction.
  - The dyne in motor is still poorly understood.
- A, B and C
  - C, D and E
  - A, D and E
  - A, C and D

Q 44. Read the four statements below: A, B, C, and D. From the options given, select the one which includes only statement(s) that are representative of arguments presented in the passage.

- Protein motors help growth processes.
  - Improved transport in nerve cells will help arrest tuberculosis and cancer.
  - Cells, together, generate more power than the sum of power generated by them separately.
  - Vorticellid and the leaf fragment are connected by a calcium engine.
- A and B but not C
  - A and C but not D
  - A and D but not B
  - C and D but not B

Q 45. Read the four statements below: A, B, C, and D. From the options given, select the one which include statement(s) that are representative of arguments presented in the passage.

- Myosin, kinesin and actin are three types of protein
  - Growth processes involve a routine in a cell that duplicates their machinery and pulls the copies apart.
  - Myosin molecules can generate vibrations in muscles.
  - Ronald and Mahadevan are researchers at Massachusetts Institute of Technology.
- A and B but not C and D
  - B and C but not A
  - B and D but not A and C
  - A, B and C but not D

## PASSAGE 5

If translated into English, most of the ways economists talk among themselves would sound plausible enough to poets, journalists, business people, and other thoughtful though *non-economical* folk, like serious talk any where among

boat designers and baseball fans, say—the talk is hard to follow when one has not made a habit of listening to it for a while. The culture of the conversation makes the words arcane. But the people in the unfamiliar conversation are not Martians. Underneath it, all (the economist's favourite phrase) conversational habits are similar. Economics uses Mathematical models and statistical tests and market arguments, all of which look alien to the literary eye. But looked at closely they are not so alien. They may be seen as figures of speech-metaphors, analogies, and appeals to authority.

Figures of speech are not mere frills. They think for us. Someone who thinks of a market as an “invisible hand” and the organization of work as a “production function” and his coefficients as being “significant,” as an economist does, is giving the language a lot of responsibility. It seems a good idea to look hard at his language.

If the economic conversation were found to depend a lot on its verbal forms, this would not mean that economics would be not a science, or just a matter of opinion, or some sort of confidence game. Good poets, though not scientists, are serious thinkers about symbols; good historians, though not scientists, are serious thinkers about data. Good scientists also use language. What is more (though it remains to be shown) they use the cunning of language, without particularly meaning to. The language used is a social object, and using language is a social act. It requires cunning (or, if you prefer, consideration), attention to the other minds present when one speaks.

The paying of attention to one's audience is called “rhetoric,” a word that I later exercise hard. One uses rhetoric, of course, to warn of a fire in a theatre or to arouse the xenophobia of the electorate. This sort of yelling is the vulgar meaning of the word, like the president's “heated rhetoric” in a press conference or the “mere rhetoric” to which our enemies stoop. Since the Greek flame was lit, though, the word has been used also in a broader and more amiable sense, to mean the study of all the ways of accomplishing things with language: inciting a mob to lynch the accused, to be sure, but also persuading readers of a novel that its characters breathe, or bringing scholars to accept the better argument and reject the worse.

The question is whether the scholar—who usually fancies himself an announcer of “results” or a stater of “conclusions” free of rhetoric—speaks rhetorically. Does he try to persuade? It would seem so. Language, I just said, is not a solitary accomplishment. The scholar does not speak into the void, or to himself. He speaks to a community of voices. He desires to be heeded, praised, published, imitated, honoured, en-Nobled. These are the desires. The devices of language are the means.

Rhetoric is the proportioning of means to desires in speech. Rhetoric is an economics of language, the study of how scarce means are allocated to the insatiable desires of people to be heard. It seems on the face of it a reasonable hypothesis that economists are like other people in being talkers, who desire listeners when they go to the library or the laboratory as much as when they go to the office on the polls. The purpose here is to see if this is true, and to see if it is useful: to study the rhetoric of economic scholarship.

The subject is scholarship. It is not the economy, or the adequacy of economic theory as a description of the economy, or even mainly the economist's role in the economy. The subject is the conversation economists have among themselves, for purposes of persuading each other that the interest elasticity of demand for investment is zero or that the money supply is controlled by the Federal Reserve.

Unfortunately, though, the conclusions are of more than academic interest. The conversations of classicists or of astronomers rarely affect the lives of other people. Those of economists do so on a large scale. A well known joke describes a May Day parade through Red Square with the usual mass of soldiers, guided missiles, rocket launchers. At last come rank upon rank of people in gray business suits. A bystander asks, “Who are those?” “Aha!” comes the reply, “those are economists: you have no idea what damage they can do!” Their conversations do it.

**Q 46.** According to the passage, which of the following is the best set of reasons for which one needs to “look hard” at an economist's language?

- A. Economists accomplish a great deal through their language.
  - B. Economics is an opinion-based subject.
  - C. Economics has a great impact on other's lives.
  - D. Economics is damaging.
- (a) A and B      (b) C and D  
 (c) A and C      (d) B and D

**Q 47.** In the light of the definition of rhetoric given in the passage, which of the following will have the least element of rhetoric?

- (a) An election speech.
- (b) An advertisement jingle.
- (c) Dialogues in a play.
- (d) Commands given by army officers.

**Q 48.** As used in the passage, which of the following is the closest meaning to the statement “The culture of the conversation makes the words arcane”?

- (a) Economists belong to a different culture.
- (b) Only Mathematicians can understand economists.
- (c) Economists tend to use terms unfamiliar to the lay person, but depend on familiar linguistic forms.
- (d) Economists use similes and adjectives in their analysis.

**Q 49.** As used in the passage, which of the following is the closest alternative to the word ‘arcane’?

- (a) Mysterious      (b) Secret
- (c) Covert      (d) Perfidious

**Q 50.** Based on your understanding of the passage, which of the following conclusions would you agree with?

- (a) The geocentric and the heliocentric views of the solar system are equally tenable.
- (b) The heliocentric view is superior because of better rhetoric.
- (c) Both views use rhetoric to persuade.
- (d) Scientists should not use rhetoric.

# ANSWERS



## SECTION 1—VERBAL ABILITY

Q. No.	Answer						
1	(c)	2	(b)	3	(d)	4	(b)
5	(d)	6	(c)	7	(a)	8	(c)
9	(d)	10	(b)	11	(c)	12	(a)
13	(d)	14	(c)	15	(a)	16	(d)
17	(c)	18	(b)	19	(c)	20	(b)
21	(a)	22	(d)	23	(a)	24	(c)
25	(a)	26	(c)	27	(b)	28	(c)
29	(d)	30	(a)	31	(a)	32	(d)
33	(d)	34	(d)	35	(b)	36	(d)
37	(b)	38	(b)	39	(d)	40	(d)
41	(d)	42	(b)	43	(a)	44	(b)
45	(a)	46	(c)	47	(d)	48	(c)
49	(a)	50	(c)				

## ➤ SECTION 2—LOGICAL REASONING

**Direction for questions 1 to 6:** Answer the following questions independently.

Four students—Ashish, Dhanraj, Felix and Sameer sat for the Common Entrance Examination for Management (CEEM). One student got admission offer from three NIMs (National Institutes of Management), another from two NIMs, the third from one NIM, while the fourth got none. Below are some of the facts about who got admission offers from how many NIMs and what is their educational background.

- (I) The one who is an engineer did not get as many admissions as Ashish.
  - (II) The one who got offer for admissions in two NIMs is not Dhanraj nor he is a chartered accountant.
  - (III) Sameer is an economist.
  - (IV) Dhanraj is not an engineer and received more admission offers than Ashish.
  - (V) The doctor got the most number of admission offers.

Q 1. Which one of the following statement is necessarily true?

- (a) Ashish is a chartered accountant and got offer for admission in three NIMs.  
(b) Dhanraj is a doctor and got admission in one NIM.  
(c) Sameer is an economist who got admission offer in two NIMs.  
(d) Felix who is not an engineer did not get any offer for admission.

Q 2. Five boys went to a store to buy sweets. One boy had Rs 40, another boy had Rs 30. Two other boys had Rs 20 each. The remaining boy had Rs 10. Below are some more facts about the initial and final cash position.

- (I) Alam started with more than Jugraj.
  - (II) Sandeep spent Rs 1.50 more than Daljeet.
  - (III) Ganesh started with more money than just only one other person.
  - (IV) Daljeet started with  $\frac{2}{3}$  of what Sandeep started with.
  - (V) Allam spent the most, but did not end with the least.
  - (VI) Jugraj spent the least and ended with more than Alam or Daljeet.
  - (VII) Ganesh spent Rs 3.50.
  - (VIII) Allam spent 10 times more than what Ganesh did.

In the choices given below, all statements except one are false. Which one of the following statements can be true?

- (a) Alam started with Rs 40 and ended with Rs 9.50.
  - (b) Sandeep started with Rs 30 and ended with Re 1.
  - (c) Ganesh started with Rs 20 and ended with Rs 4.
  - (d) Jugrai started with Rs 10 and ended with Rs 7.

Q 3. In a hospital there were 200 diabetes, 150 hyperglycemia and 150 gastro-enteritis patients. Of these, 80 patients were treated for both diabetes and hyperglycemia. Sixty patients were treated for gastro-enteritis and hyperglycemia, while 70 were treated. Some of these patients have all the three diseases. Doctor Dennis treats with only gastro-enteritis. Doctor Paul is a generalist. Therefore, he can treat patient with multiple diseases. Patients always prefer specialist for their disease. If Doctor Dennis has 80 patients, then other three doctors can be arranged in terms of number of patients treated as:



Q 4. Three children won the prizes in the Bournvita quiz contest. They are from the schools: Loyala, Convent and Little Flowers which are located at different cities. Below are some of the facts about the schools, the children and the city they are from.

- (I) One of the children is Bipin.
  - (II) Loyala School's contestant did not come first.
  - (III) Little Flower's contestant was named Riaz.
  - (IV) Convent School is not in Hyderabad.
  - (V) The contestant from Pune is not from Loyala School.
  - (VI) The contestant from Bangalore did not come first.
  - (VII) Convent School contestant's name is not Balbir.

Which of the following statements is true?

- (a) 1st prize: Riaz (Little Flowers), 2nd prize: Bipin (Convent), 3rd prize: Balbir (Loyala)
  - (b) 1st prize: Bipin (Convent), 2nd prize: Riaz (Little Flowers), 3rd prize: Balbir (Loyala)
  - (c) 1st prize: Riaz (Little Flowers), 2nd prize: Balbir (Loyala), 3rd prize: Bipin (Convent)
  - (d) 1st prize: Bipin (Convent). 2nd prize: Balbir (Loyala), 3rd prize: Riaz (Little Flower)

**Direction for questions 7 to 10:** Answer the following questions based on the information given below.

A country has following types of traffic signals.

- 3 red lights = stop
- 2 red lights = turn left
- 1 red light = turn right
- 3 green lights = go at 100 km/h speed
- 2 green lights = go at 40 km/h speed
- 1 green light = go at 20 km/h speed

A motorist starts at a point on a road and follows all traffic signals. His car is heading towards the north. He encounters the following signals (the time mentioned in each case below is applicable after crossing the previous signal).

Starting point-1 green light

After half an hour, 1st signal—2 red and 2 green lights

After 15 minutes, 2nd signal-1 red light

After half an hour, 3rd signal-1 red and 3 green lights

After 24 minutes, 4th signal—2 red and 2 green lights

After 15 minutes, 5th signals—3 red lights

- Q 7. The total distance travelled by the motorists from the starting point till the last signal is  
(a) 90 km      (b) 100 km      (c) 120 km      (d) None of these

- O 8. What is the position (radial distance) of the most motorists when he reaches the last signal?

- (a) 45 km directly north of the starting point.
  - (b) 30 km directly to the east of the starting point.
  - (c) 50 km away to the north-east of the starting point.
  - (d) 45 km away to the north-west of the starting point.

- Q 9. After the starting point if the 1st signal were one red and 2 green lights, what would be the final position of the motorist?

- (a) 30 km to the west and 20 km to the south.
  - (b) 30 km to the west and 40 km to the north.
  - (c) 50 km to the east and 40 km to the north.
  - (d) Directly 30 km to the east.

- Q 10. If at the starting point, the car was heading towards south, what would be the final position of the motorist?

- (a) 30 km to the east and 40 km to the south.
  - (b) 50 km to the east and 40 km to the south.
  - (c) 30 km to the west and 40 km to the south.
  - (d) 50 km to the west and 20 km to the north.

**Direction for questions 11 to 13:** Answer the following questions based on the table given below.

The following tables provides data on the different countries and location of their capitals. (The data may not match the actual Latitude, Longitudes). Answer the following questions on the basis of this table.

<b>Serial Number</b>	<b>Country</b>	<b>Capital</b>	<b>Latitude</b>	<b>Longitude</b>
1	Argentina	Buenos Aires	34.30 S	58.20 E
2	Australia	Canberra	3.15 S	149.08 E
3	Austria	Vienna	48.12 N	16.22 E
4	Bulgaria	Sofia	42.45 N	23.20 E
5	Brazil	Brasilia	15.47 S	47.55 E
6	Canada	Ottawa	45.27 N	75.42 E
7	Cambodia	Phnom Penh	11.33 N	104.55 E
8	Ecuador	Quito	0.15 S	78.35 E
9	Ghana	Accra	5.35 N	0.6 E
10	Iran	Tehran	35.44 N	51.30 E
11	Ireland	Dublin	53.20 N	6.18 E
12	Libya	Tripoli	32.49 N	13.07 E
13	Malaysia	Kuala Lumpur	3.9 N	101.41 E
14	Peru	Lima	12.05 S	77.0 E
15	Poland	Warsaw	52.13 N	21.0 E
16	New Zealand	Wellington	41.17 S	174.47 E
17	Saudi Arabia	Riyadh	24.41 N	46.42 E
18	Spain	Madrid	40.25 N	3.45 W
19	Sri Lanka	Colombo	6.56 N	79.58 E
20	Zambia	Lusaka	15.28 S	28.16 E



**Direction for questions 14 to 21:** Each item is followed by two statements, (A) and (B) answer each questions using the following instructions.

Choose 1: If the question can be answered by one of the statement alone but not by the other.

**Choose 2:** If the question can be answered by using either statement alone

**Choose 3:** If the question can be answered by using both the statements together, but cannot be answered by using either statement alone.

Choose 4: If the question cannot be answered by either of the statements.

**Direction for questions 22 to 25:** Answer the following questions based on the following information.

The following table gives details regarding the total earnings of 15 employees and the number of days they have worked on complex, medium and simple operation in the month of June 2002. Even though the employees might have worked on an operation, they would be eligible for earnings only if they have minimum level of efficiency.

Emp. No.	Total Earnings				Total Days			
	Complex	Medium	Simple	Total	Complex	Medium	Simple	Total
2001147	82.98		636.53	719.51	3.00	0.00	23.00	26.00
2001148	51.53		461.73	513.26	3.33	1.67	16.00	21.00
2001149	171.1		79.10	250.81	5.50	4.00	8.50	18.00
2001150	100.47		497.47	597.95	6.00	4.67	7.33	18.00
2001151	594.43	159.64		754.06	9.67	13.33	0.00	23.00
2001156	89.70			89.70	8.00	0.00	1.00	9.00
2001158	472.31	109.73		582.04	1.39	9.61	0.00	11.00

Emp. No.	Total Earnings				Total Days			
	Complex	Medium	Simple	Total	Complex	Medium	Simple	Total
2001164	402.25	735.22	213.67	1351.14	5.27	12.07	0.67	18.00
2001170	576.57			576.57	21.00	0.00	0.00	21.00
2001171	286.48	6.10		292.57	8.38	4.25	0.38	13.00
2001172	512.10	117.46		629.56	10.00	8.50	3.50	22.00
2001173	1303.88			1303.88	25.50	0.00	0.50	26.00
2001174	1017.94			1017.9	26.00	0.00	0.00	26.00
2001179	46.56	776.19		822.75	2.00	19.00	0.00	21.00
2001180	116.40	1262.79		1379.19	5.00	19.00	0.00	24.00

Q 22. The number of employees who have earned more than Rs 50 per day in complex operations is



Q 23. The number of employees who have earned more than Rs 600 and having more than 80% attendance (there are 25 regular working days in June 2002; some might be coming on overtime too) is



O 24. The employee number of the person who has earned the maximum earnings per day in medium operation is

- The employee number of the person who has earned the maximum earnings per day in medium

Q 25. Among the employees who were engaged in complex and medium operations, the number of employees whose average earning per day in complex operations is more than average earning per day in medium operations is



**Direction for questions 26 to 33:** Answer the following questions based on the table given below:

The following table shows the revenue and expenses in millions of Euros (European currency) associated with REPSOL YPF company's oil and gas producing activities in operations in different parts of the world for 1998-2000.

REPSOL YPF'S Operations of Oil and Gas Producing Activities

<i>S. No.</i>	<i>Item</i>	<i>Year</i>	<i>Total World</i>	<i>Spain</i>	<i>North Africa and Middle East</i>	<i>Argentina</i>	<i>Rest of Latin America</i>	<i>Far East</i>	<i>North Sea</i>	<i>Rest of the World</i>
1	Revenue	1998	916	70	366	281	34	82	78	5
		1999	3374	55	666	2006	115	301	140	91
		2000	8328	394	1290	5539	482	603	0	20
2	Expenses	1998	668	39	255	187	57	63	52	15
		1999	1999	48	325	1168	131	204	65	58
		2000	3709	43	530	2540	252	311	0	33
3	Income before Taxes and charges (Revenue – expenses) = [(a) – (b)]	1998	248	31	111	94	-23	19	26	-10
		1999	1375	7	341	838	-16	97	75	33
		2000	4619	351	760	2999	230	292	0	-13

<i>S. No.</i>	<i>Item</i>	<i>Year</i>	<i>Total World</i>	<i>Spain</i>	<i>North Africa and Middle East</i>	<i>Argentina</i>	<i>Rest of Latin America</i>	<i>Far East</i>	<i>North Sea</i>	<i>Rest of the World</i>
4	Taxes and charges	1998	152	6	104	33	-3	9	6	-3
		1999	561	3	169	338	-6	39	21	-3
		2000	1845	126	404	1150	61	103	0	1
5	Net income – Taxes charges = [(c) – (d)]	1998	96	25	7	61	-20	10	20	-7
		1999	814	4	172	500	-10	58	54	36
		2000	2774	225	356	1849	169	189	0	-14

**Direction for questions 34 and 35:** Answer the following questions based on the pie charts given below.

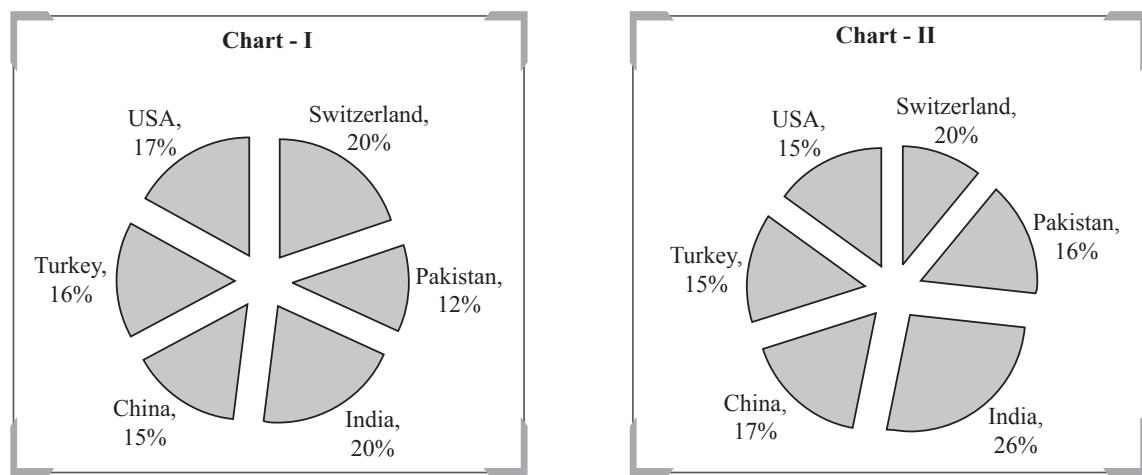


Chart - I shows the distribution by value of top 6 suppliers of MFA textiles in 1995. Chart - II shows the distribution by quantity of top 6 suppliers of MFA textiles in 1995. The total value is 5760 million Euro (European currency). The total quantity is 1.055 million tones.

Q 34. The country which has the highest average price is

- (a) USA      (b) Switzerland      (c) Turkey      (d) India

Q 35. The average price in Euro per kilogram for Turkey is roughly

- (a) 6.20      (b) 5.60      (c) 4.20      (d) 4.80

**Direction for questions 36 to 41:** Answer the following questions based on the tables given below.

There are 6 refineries, 7 depots and 9 districts. The refineries are BB, BC, BD, BE, BF and BG. The depots are AA, AB, AC, AD, AE, AF and AG. The districts are AAA, AAB, AAC, AAD, AAE, AAF, AAG, AAH and AAI. Table 1 gives the cost of transporting one unit from refinery to depot. Table 2 gives the cost of transporting one unit from depot to a district.

**Table 1**

	<b>BB</b>	<b>BC</b>	<b>BD</b>	<b>BE</b>	<b>BF</b>	<b>BG</b>
AA	928.2	537.2	567.8	589.9	589.9	800.1
AB	311.1	596.7	885.7	759.9	759.9	793.9
AC	451.1	0	320.1	780.1	720.7	1000.1
AD	371.1	150.1	350.1	750.1	650.4	980.1
AE	1137.3	314.5	0	1157.7	1157.7	1023.4
AF	617.1	516.8	756.5	1065.9	1065.9	406.3
AG	644.3	299.2	537.2	1093.1	1093.1	623.9

**Table 2**

	<b>AA</b>	<b>AB</b>	<b>AC</b>	<b>AD</b>	<b>AE</b>	<b>AF</b>	<b>AG</b>
AAA	562.7	843.2	314.5	889.1	0	754.8	537.2
AAB	532.7	803.2	284.5	790.5	95.2	659.6	442
AAC	500.7	780.2	0	457.3	205.7	549.1	331.5
AAD	232.9	362.1	286.2	275.4	523.6	525.3	673.2

	<i>AA</i>	<i>AB</i>	<i>AC</i>	<i>AD</i>	<i>AE</i>	<i>AF</i>	<i>AG</i>
AAE	345.1	268.6	316.2	163.2	555.9	413.1	227.8
AAF	450.1	644.3	346.2	372.3	933.3	402.9	379.1
AAG	654.5	0	596.7	222.7	885.7	387.6	348.5
AAH	804.1	149.6	627.2	360.4	1035.3	537.2	498.1
AAI	646	255	433.5	137.7	698.7	112.2	161.5

- Q 36. What is the least cost of sending one unit from any refinery to any district?  
(a) 95.2      (b) 0      (c) 205.7      (d) 284.5

Q 37. What is the least cost of sending one unit from any refinery to the district AAB?  
(a) 0      (b) 284.5      (c) 95.2      (d) None of these

Q 38. What is the least cost of sending one unit from refinery BB to any district?  
(a) 284.5      (b) 311.1      (c) 451.1      (d) None of these

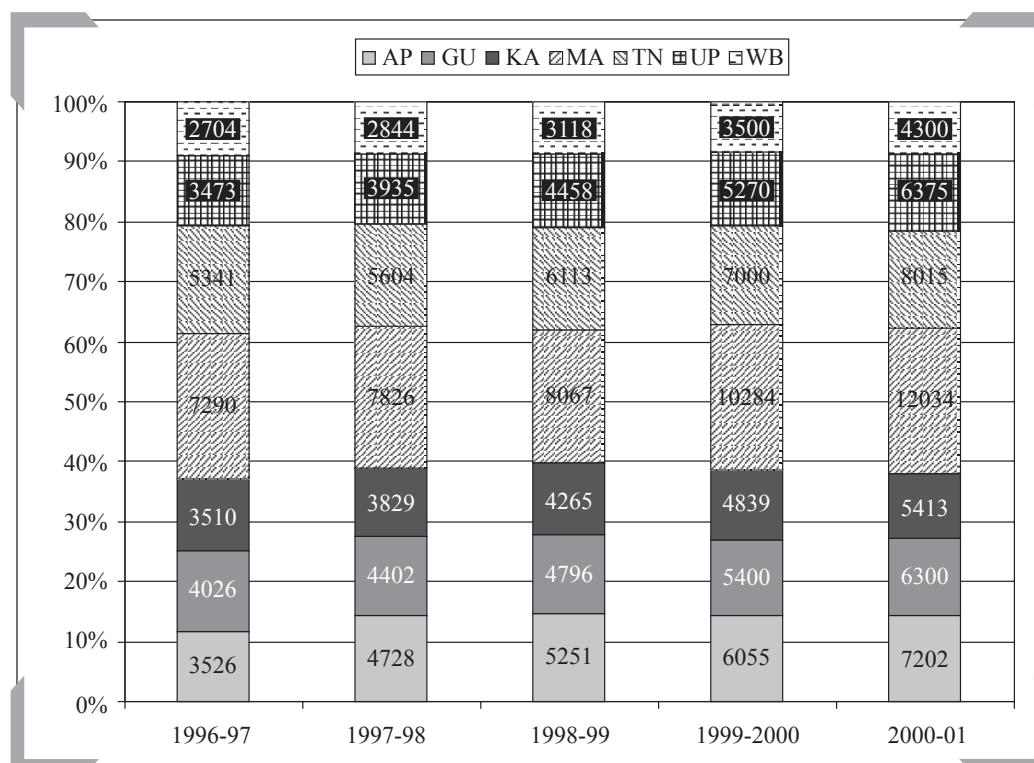
Q 39. What is the least cost of sending petrol from refinery BB to district AAA?  
(a) 765.6      (b) 1137.3      (c) 1154.3      (d) None of these

Q 40. How many possible ways are there for sending petrol from any refinery to any district?  
(a) 63      (b) 42      (c) 54      (d) 378

Q 41. The largest cost of sending petrol from any refinery to any districts is  
(a) 2172.6      (b) 2193.0      (c) 2091.0      (d) None of these

**Direction for questions 42 to 47:** Answer the following questions based on the chart given below.

The chart given below indicates the annual sales tax revenue collections (in rupees in crores) of seven states from 1997 to 2001. The values given at the top of each bar represents the total collections in that year.



WB = West Bengal, UP = Uttar Pradesh, TN = Tamil Nadu, MA = Maharashtra, KA = Karnataka, GU = Gujarat, AP = Andhra Pradesh. [From Top to Down - WB is at the top and AP is at the bottom]

**Direction for questions 48 to 50:** Answer the following questions based on the table given below.

The table below gives information about four different crops, their different quality, categories and the regions where they are cultivated. Based on the information given in the table answer the questions below.

Type of crop	Quality	Region
Crop-1	High	R1, R2, R3, R4, R5
	Medium	R6, R7, R8
	Low	R9, R10, R11
Crop-2	High	R5, R8, R12
	Medium	R9, R13
	Low	R6, R7, R8
Crop-3	High	R2, R6, R7, R13
	Medium	R3, R9, R11
	Low	R1, R4
Crop-4	High	R3, R10, R11
	Medium	R1, R2, R4
	Low	R5, R9

# ANSWERS



## SECTION 2—LOGICAL REASONING

Q. No.	Answer						
1	(c)	2	(d)	3	(d)	4	(c)
5	(c)	6	(a)	7	(a)	8	(c)
9	(c)	10	(c)	11	(b)	12	(d)
13	(a)	14	(d)	15	(a)	16	(a)
17	(a)	18	(d)	19	(b)	20	(c)
21	(c)	22	(c)	23	(d)	24	(a)
25	(c)	26	(c)	27	(b)	28	(d)
29	(b)	30	(b)	31	(b)	32	(d)
33	(d)	34	(b)	35	(b)	36	(b)
37	(a)	38	(b)	39	(a)	40	(d)
41	(b)	42	(b)	43	(b)	44	(d)
45	(c)	46	(a)	47	(c)	48	(b)
49	(d)	50	(c)				

## HINTS AND EXPLANATIONS

### SECTION 2—LOGICAL REASONING



1. (c) According to statement III.  
 (a) Ashish is not an engineer, (b) Ashish has got more offers than engineers.  
 Therefore, Ashish did not have 0 offers.  
 Now, we can put the above given information in the table like the one given below.

<i>Profession</i>	<i>Names</i>	<i>Offers</i>				X profession
		3	2	1	0	
CA	Ashish	X	X	X	X	X engineer
MD	Dhanraj	✓	X	X	X	X engineer
Economist	Sameer	X	✓	X	X	
Engineer		X	X	X	✓	

From statement IV, Dhanraj is not 0 and 1.

2. (d) Option (c) is ruled out by statement VII.  
 Option (a) is ruled out by statement VII and VIII.  
 From statement IV, Sandeep had Rs 30 to start with and Daljeet Rs 20.  
 From statement II, Option (b) is not possible as Sandeep was left with Rs 1, he spent Rs 29 but according to (b) he spent Rs 1.50 more than Daljeet. But Daljeet had only Rs 20. Hence, option (d) is the answer.
3. (d) Data insufficient, please check the question.
4. (c) Statements V and VI rule out the options (a) and (b). The contestants from Bangalore and Pune did not come first, so, school from Hyderabad can come first. Convent is not in Hyderabad which rules out option (d).

5. (c) Only two combinations possible are:

Younger	Older
2	4
3	9

Cubes of natural numbers are 1, 8, 27, 64..... Here, 64 and above is not possible as the age will go above 10. Only (b) and (c) satisfy the case of mother and father.

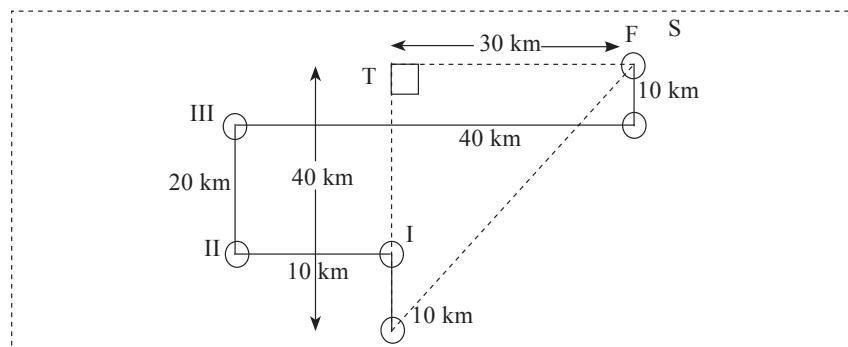
6. (a)

Total seats in the hall	200	Seating capacity of Flight $2/3 \times 180$	= 120
Seats vacant	20	Number of people in Flight A	= 100
Seats vacant	20	Number of people in Flight A	= 100
Total waiting	180	For flight B = $180 - 100$	= 80
Ladies	72	Thus, number of airhostess for A	= 4
		Empty seats in flight B = $120 - 80$	= 40
		40 : 4	= 10 : 1

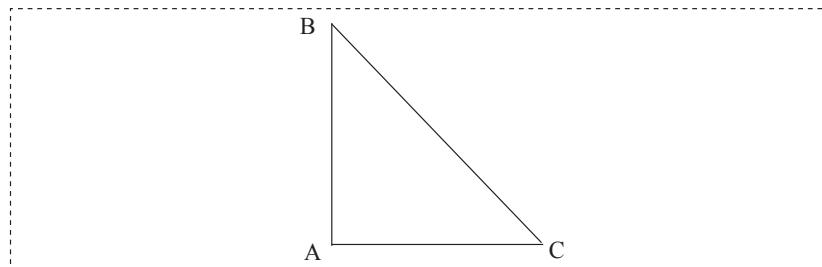
7. (a)  $s$  = Distance covered;  $v$  = Velocity (Km/h)

$t$  = Time taken;  $s = v \times t$

The total distance traveled by the motorists from the starting point till last signal is  $10 + 10 + 20 + 40 + 10 = 90$  km.



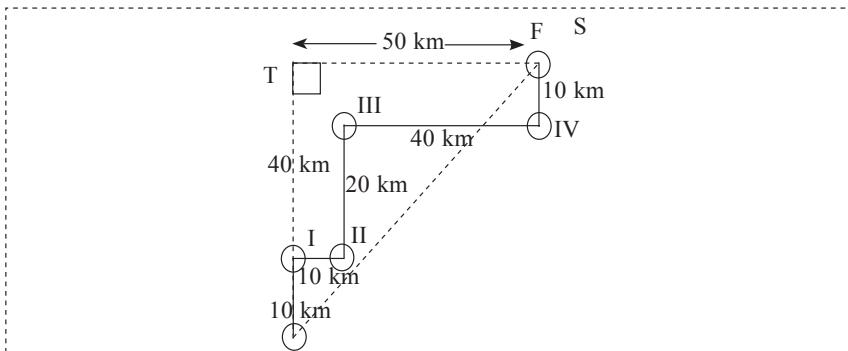
8. (c) Applying Pythagoras theorem, for a right-angled triangle.



$$(BC)(BC) = (AB)(AB) + (AC)(AC)$$

$$BC = \sqrt{(AB)(AB) + (AC)(AC)} = 50 \text{ km}.$$

9. (c) For the case when 1st signal were 1 red and 2 green lights, the surface diagram will be as given below.



$$TF = 50 \text{ km}; ST = 40 \text{ km}$$

Going by the above figure, option (c) is correct, 50 km to the east and 40 km to the north.

11. (b) Total five countries lie between 10 E and 40 E

Austria	Bulgaria	Libya	Poland	Zambia
N	N	N	N	S

$$1/5 = 20\%$$

12. (d) Number of cities whose names are starting with consonants and are located in the northern hemisphere = 10  
 Number of countries whose names are starting with consonants and are located in the east of the meridian = 13  
 Hence, option (d), the difference is 3.
13. (a) Three countries whose names are starting with vowels and are located in Southern Hemisphere—Argentina, Australia and Ecuador and two countries with capital's names beginning with vowels—Canada and Ghana.
14. (d) Let us consider two cases:  
 (a) If 5 minutes are left with the score with 0–2, then final score could have been 3–3. [Assuming that there is no other Indian score.  
 (b) But if the score before 5 minutes was 1–3, then final score could have been 4–3.
15. (a) From statement A, if by adding 12 students, total number of students can be divided by 8, then by adding 4 students, it will be divisible by 8.

$$16. (a) \text{From (A), } (x+y) \left( \frac{1}{x} + \frac{1}{y} \right) = 4 \text{ or } (x+y) \left( \frac{x+y}{xy} \right) = 4$$

$$\Rightarrow (x+y)(x+y) = (4xy) \\ \Rightarrow (x-y)(x-y) = 0 \\ \Rightarrow x = y \quad \dots\dots(i)$$

$$\text{From B, } (x-50)(x-50) = (y-50)(y-50)$$

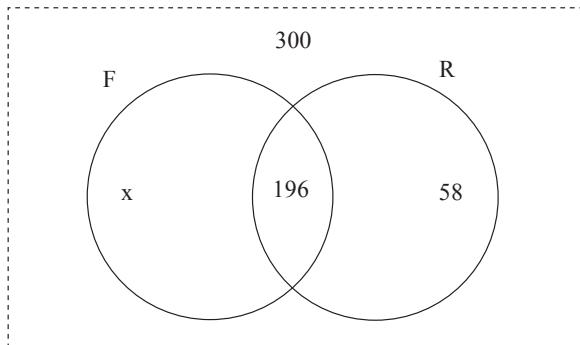
When we solve we get

$$x(x-100) = y(y-100) \quad \dots\dots(ii)$$

Therefore, we can conclude that the value of  $x$  and  $y$  can either be 0 or 100.

17. (a) Statement (A) Let the wholesale price be  $x$   
 Thus, listed prices =  $1.2x$   
 After a discount of 10%, new price  
 $= 0.9 \times 1.2x = 1.08x$   
 $1.08x - x = 10 \$$ . Now  $x$  can be found.
- Statement (B) From what is known to us we do not know at what percentage profit, or at what amount of profit was the dress actually sold.
18. (d) A gives 500 as median and B gives 600 as range. A and B together do not give average. Therefore, it cannot be answered from the given statements.
19. (b) From statement A, we know that all  $-1 < x < 1$ ,  
 We can determine  $|x-2| < 1$  is not true.  
 From B,  $-1 < x < 3$ , we cannot determine whether  $|x-2| < 1$  or not. Therefore, statement B alone is sufficient.

20. (c) From statement A, we cannot derive anything.  
 From B alone we cannot find anything.  
 From A and B,



$$x + 196 + 58 = 300$$

21. (c) Jagdish (J), Punit (P), Girish (G)

(A)  $J = \frac{2}{9}[P + Q]$

$P + G + J = 38500$

Thus, only J can be found.

- (B) Similarly, from this only P can be found. Combining the two J, P and G can be found.

22. (c) Emp. No 51, 58, 64, 72, 73 satisfy them. Total = 5.

23. (d) 80% attendance = 80% of 25 = 20 days

Employee numbers = 47, 51, 72, 73, 74, 79, 80

Thus, total = 7.

24. (a)

Emp. Number	Earnings E (medium)	Number of days D (medium)	E/D
2001151	159.64	13.33	11.97
2001158	109.72	9.61	11.41
2001164	735.22	12.07	60.91
2001171	6.10	4.25	—
2001172	117.46	8.50	13.81
2001179	776.19	19.00	40.85
2001180	1262.79	19.00	66.46

25. (c) If you know Vedic Mathematics, you can easily compare the fraction in time. Thus, employee number 1, 58, 64, 71, 72 satisfy the condition.

(For example: 64, you see 12 is not the double of 5 and 735 is also not even double of 402.)

Hence,  $402/5 > 735/12$ , (c)

26. (c) Total revenue of 1999 = 3374

$$5\% \text{ of } 3374 = 3374 \times 5/100 = 168.7$$

For 1999, revenue of Spain is 55, of Latin America is 115, north is 140, rest of the world is 91.

Therefore, all four operations of the company accounted for less than 5% of the total revenue earned in the 1999.

27. (b) For men 200% growth. The value should be more than 3 times.

28. (d) Four operations that are given below:

1. North Africa and Middle East
2. Argentina
3. Rest of Latin America
4. Far East

Have registered yearly increase in income before taxes and charges from 1998-00.

29. (b) There is % increase in net income before tax and charges for total world (1998-99) =  $1375 - 248/248 \times 100 = 454.4\%$   
Spain is running in loss.

There is % increase of North Africa and Middle East =  $341 - 111/111 \times 100 = 207.2\%$

There is % increase for Argentina =  $838 - 94/94 \times 100 = 791.5\%$

From table 1, we can directly say that there is no operation other than Argentina, whose % increase in net income before taxes and charges are higher than the average of the world.

30. (b) Statement (a) is wrong.

(b)  $54/65 > 20/52$ . Hence, (b) is correct.

(c)  $500/1168 > 61/187$ . Statement (c) is again wrong.

31. (b) The Profitability of North Africa and Middle East in 2000 =  $356/530 = 0.67$

The Profitability of Spain in 2000 =  $225/43 = 5.23$

The Profitability of the Rest of Latin America in 2000 =  $169/252$ , which is less than 1

The Profitability of Far East in 2000 =  $189/311 = < 1$

32. (d) Except for the operations of the rest of Latin America and the rest of the world all the other operations are greater than 2.

33. (d) It will take a lot of time to check option (d).

But if you happen to first rule out the options (a), (b) and (c), then you can mark (d).

34. (b) By looking at the charts we see that Switzerland's ratio of chart 1 to chart 2 is 20/11 has the highest prize per unit kilogram for its supply. Finding the ratio of the value and quantity gives you the solution.

35. (b) Total value for Turkey is 16% of 5760 million Euro

Total quantity for Turkey is 15% of 1.055 million ton

So average price in Euro per kilogram for Turkey is  $(5760 \times 16/100)/(1055 \times 15/100) = 5.6$

36. (b)  $BC \rightarrow AC \rightarrow AAC = 0$

37. (a)  $BD \rightarrow AE \rightarrow AAB = 95.2$

The least cost to reach AAB is through AE. And that from BD to AE is 0.

38. (b)  $BB \rightarrow AB \rightarrow AAG = 311.1$  (Same as previous)

39. (a) First we check the minimum cost of receiving at AA(A). We get O for AE. But from BB to AE is very high. Next is AC (314.5) BB to AC is 451.1. After AC, the others are high. Hence,  $314.5 + 45.1 = 765.6$

40. (d) Number of refineries = 6

Number of depots = 7

Number of districts = 9

Therefore, Number of possible ways to send petrol from any refinery to any district is  $6 \times 7 \times 9 = 378$ .

41. (b) If we look for large figures we would find them in both tables in AE. After adding them and we get  $BE \rightarrow AE \rightarrow AAH$ .

42. (b)

Position of States (rank)	Year				
	96-97	97-98	98-99	99-00	00-01
1	MA	MA	MA	MA	MA
2	TN	TN	TN	TN	TN
3	GU	AP	AP	AP	AP
4	AP	GU	GU	GU	UP
5	KA	UP	UP	UP	GU
6	UP	KA	KA	KA	KA
7	WB	WB	WB	WB	WB

43. (b) When we observe the above table, we see that UP is the state which changes its relative ranking most numbers of time.

44. (d) By looking at the graph we see that the sales tax revenue collection for AP has more than doubled from 1997-01.

45. (c) Growth rate of Tax revenue can be calculated as:

$$(\text{sales revenue of current year} - \text{sales tax revenue of previous year})$$

$$\text{For the year } 1997-98 = 7826 - 7290/7826 = 0.068$$

$$\text{For the year } 1998-99 = 8067 - 7826/7826 = 0.030$$

$$\text{For the year } 1999-00 = 0284 - 8067/8067 = 0.274$$

$$\text{For the year } 2000-01 = 12034 - 10284/10284 = 0.170$$

46. (a) For finding this, we have to check every option.

For Karnataka, sales tax revenue of states/total sales tax

$$1996-97 \Rightarrow 3510/29870 = 0.11$$

$$1997-98 \Rightarrow 3829/33168 = 0.11$$

$$1998-99 \Rightarrow 4265/36068 = 0.11$$

$$1999-00 \Rightarrow 4839/42348 = 0.11$$

$$2000-01 \Rightarrow 5413/49638 = 0.11$$

So, Karnataka is the correct option and no further check is required.

47. (c) By looking at the table prepared while solving question (11), we see that Tamil Nadu has maintained a constant rank over the years in terms of its contribution to total tax collections.

48. (b) Only R9

49. (d) Statement (a) is not satisfied by R9.

Statement (b) is not satisfied R2 and R3.

Statement (c) is incorrect as there are 5 such reason R1, R2, R3, R4 and R11.

Statement (d) is the answer.

50. (c) All three R9, R10 and R11.

# CAT 2003



## LEARNING Objectives

1. Read the instructions carefully before attempting the questions.
2. Do your rough work on Test Booklet and not on the Answer Sheet.
3. Total Questions = 100
4. There is negative marking.

### ➤ SECTION 1—VERBAL ABILITY

**Direction for questions 1 to 25:** *Each of the five passages given below is followed by five questions. Choose the best answer to each question.*

#### PASSAGE I

At first, it looks as though Panchayati Raj, the lower layer of federalism in our polity, is as firmly entrenched in our system as is the older and higher layer comprising the Union Government and the State. Like the democratic institutions at the higher level, those at the panchayat level, the Panchayati Raj Institutions (PRIs), are written into and Protected by the Constitution. All the essential features, which distinguish a unitary system from a federal one, are as much enshrined at the lower as at the upper level of our federal system. But look closely and you will discover a fatal flaw. The letter of the Constitution as well as the spirit of the present polity have exposed the Intra-State level of our federal system to a dilemma of which the inter-State and Union-State layers are free. The flaw has many causes. But all of them are rooted in an historical anomaly, that while the dynamics of federalism

and democracy have given added strength to the rights given to the States in the Constitution, they have worked against the rights of panchayats.

At both levels of our federal system, there is the same tussle between those who have certain rights and those who try to encroach upon them if they believe they can. Thus the Union Government was able to encroach upon certain rights given to the States by the Constitution. It got away with that because the single dominant party system, which characterized Centre-State relations for close upon two decades, gave the party in power at the Union level many extra-constitutional political levers. Second, the Supreme Court had not yet begun to extend the limits of its power. But all that has changed in recent times. The spurt given to a multi-party democracy by the overthrow of the Emergency in 1977 became a long-term trend later on because of the ways in which a vigorously democratic multi-party system works in a political society which is as assertively pluralistic as Indian society is. It gives political clout to all the various segments which constitute that society. Secondly, because of the linguistic reorganization of States in the 1950s, many of the most assertive segments have found their most assertive expression as States. Thirdly, with single-party dominance becoming a thing of the past at the Union level, govern-

ment can be formed at that level only by multi-party coalitions in which State-level parties are major players. This has made it impossible for the Union Government to do much about anything unless it also carries a sufficient number of State-level parties with it. Indian federalism is now more real than it used to be, but an unfortunate side-effect is that India's Panchayati Raj System, inaugurated with such fanfare in the early 1980s has become less real.

By the time the PRIs came on the scene, most of the political space in our federal system had been occupied by the Centre in the first 30 years of Independence, and most of what was still left after that was occupied by the States in the next 20 years. PRIs might have hoped to wrest some space from their immediate neighbour, the States, just as the States had wrested some from the Centre. But having at last managed to checkmate the Centre's encroachments on their rights, the States were not about to allow the PRIs to do some encroaching of their own.

By the 1980s and early 1990s, the only national party left, the Congress, had gone deeper into a siege mentality. Finding itself surrounded by State-level parties, it had built walls against them instead of winning them over. Next, the States retaliated by blocking Congress proposals for Panchayati Raj in Parliament, suspecting that the Centre would try to use panchayats to bypass State Governments. The suspicion fed on the fact that the powers proposed by the Congress for panchayats were very similar to many of the more lucrative powers of State Governments. State-level leaders also feared, perhaps, that if panchayat-level leaders captured some of the larger PRIs, such as district-level panchayats, they would exert pressure on State-level leaders through Intra-State multi-party federalism.

It soon became obvious to Congress leaders that there was no way the Panchayati Raj amendments they wanted to write into the Constitution would pass muster unless State-level parties were given their pound of flesh. The amendments were allowed only after it was agreed that the power of panchayats could be listed in the Constitution. Illustratively they would be defined and endowed on PRIs by the State Legislature acting at its discretion.

This left the door wide open for the States to exert the power of the new political fact that while the Union and State Governments could afford to ignore panchayats as long as the MLAs were happy, the Union Governments had to be sensitive to the demands of States-level parties. This has given State-level actors strong beachheads on the shores of the both inter-State and intra-State federalism. By using various administrative devices and non-elected parallel structures, State Government have subordinated their PRIs to the State administration and given the upper hand to State Governments officials against the elected heads of PRIs. Panchayats have become local agencies for implementing schemes drawn up in distant state capitals. And their own volition has been further circumscribed by a plethora of "Centrally-sponsored schemes." These are drawn up by even more distant Central authorities but at the same time tie up local staff and resources on pain of the schemes being switched off in the absence of matching local contribution. The "foreign aid" syndrome can be clearly seen at work behind this kind of "grass roots development".

- Q 1. Which of the following best captures the current state of Indian federalism as described in the passage?
- The Supreme Court has not begun to extend the limits of its power.
  - The multi-party system has replaced the single party system.
  - The Union, State and Panchayati Raj levels have become real.
  - There is real distribution of power between the Union and State level parties.
- Q 2. The central theme of the passage can be best summarized as:
- Our grassroots development at the panchayat level is now driven by the "foreign aid" syndrome.
  - Panchayati Raj is firmly entrenched at the lower level of our federal system of governance.
  - A truly federal polity has not developed since PRIs have not been allowed the necessary political space.
  - The Union government and State-level parties are engaged in a struggle for the protection of their respective rights.
- Q 3. The sentence in the last paragraph, "And their own volition has been further circumscribed ...", refers to:
- The weakening of the local institutions' ability to plan according to their needs.
  - The increasing demands made on elected local leaders to match central grants with local contributions.
  - The empowering of the panchayat system as implementers of schemes from State capitals.
  - The process by which the prescribed Central schemes are reformulated by local elected leaders.
- Q 4. What is the "dilemma" at the Intra-State level mentioned in the first paragraph of the passage?
- Should the state government wrest more space from the Union, before considering the panchayati system?
  - Should rights similar to those that the States managed to get be extended to panchayats as well?
  - Should the single party system which has withered away be brought back at the level of the States?
  - Should the States get "their pound of flesh" before allowing the Union government to pass any more laws?
- Q 5. Which of the following most closely describes the 'fatal flaw' that the passage refers to?
- The ways in which the democratic multi-party system works in an assertively pluralistic society like India's are flawed.
  - The mechanisms that our federal system uses at the Union government level to deal with States are imperfect.

- (c) The instruments that have ensured federalism at one level, have been used to achieve the opposite at another.
- (d) The Indian Constitution and the spirit of the Indian polity are fatally flawed.

## PASSAGE II

The endless struggle between flesh and the spirit found an end in Greek art. The Greek artists were unaware of it. They were spiritual materialists, never denying the importance of the body and ever seeing in the body a spiritual significance. Mysticism on the whole was alien to the Greeks, thinkers as they were. Thought and mysticism never go well together and there is little symbolism in Greek art. Athena was not a symbol of wisdom but an embodiment of it and her statues were beautiful grave women, whose seriousness might mark them as wise, but who were marked in no other way. The Apollo Belvedere is not a symbol of the sun, nor the Versailles Artemis of the moon. There could be nothing less akin to the ways of symbolism than their beautiful, normal humanity. Nor did decoration really interest the Greeks. In all their art they were preoccupied with what they wanted to express, not with ways of expressing it, and lovely expression, merely as lovely expression, did not appeal to them at all.

Greek art is intellectual art, the art of men who were clear and lucid thinkers, and it is therefore, plain art. Artists than whom the world has never seen greater, men endowed with the spirit's best gift, found their natural method of expression in the simplicity and clarity which are the endowment of the unclouded reason. "Nothing in excess," the Greek axiom of art, is the dictum of men who would brush aside all obscuring, entangling superfluity, and see clearly, plainly, unadorned, what they wished to express. Structure belong in an especial degree to the province of the mind in art, and architectonics were pre-eminently a mark of the Greek. The power that made a unified whole of the trilogy of a Greek tragedy, that envisioned the sure, precise, decisive scheme of the Greek status, found its most conspicuous expression in Greek architecture. The Greek temple is the creation, par excellence, of mind and spirit in equilibrium.

A Hindoo temple is a conglomeration of adornment. The lines of the building are completely hidden by the decorations. Sculptured figures and ornaments crowd its surface, stand out from it in thick masses, break it up into a bewildering series of irregular tiers. It is not a unity but a collection, rich, confused. It looks like something not planned but built this way and that as the ornament required. The conviction underlying it can be perceived: each bit of the exquisitely wrought detail had a mystical meaning and the temple's exterior was important only as a means for the artist to inscribe thereon the symbols of the truth. It is decoration, not architecture.

Again, the gigantic temples of Egypt, those massive immensities of granite which look as if only the power that moves in the earthquake were mighty enough to bring them into existence, are something other than the creation of geometry balanced by beauty. The science and the spirit are there, but what

is there most of all is force, unhuman force, calm but tremendous, overwhelming. It reduces to nothingness all that belongs to man. He is annihilated. The Egyptian architects were possessed by the consciousness of the awful, irresistible domination of the ways of nature; they had no thought to give to the insignificant atom that was man.

Greek architecture of the great age is the expression of men who were, first of all, intellectual artists, kept within the visible world by their mind, but, only second to that, lovers of the human world. The Greek temple is the perfect expression of the pure intellect illumined by the spirit. No other great buildings anywhere approach its simplicity. In the Parthenon, straight columns rise to plain capitals; a pediment is sculptured in bold relief; there is nothing more. And yet-here is the Greek miracle-this absolute simplicity of structure is alone in majesty of beauty among all the temples and cathedrals and palaces of the world. Majestic but human, truly Greek. No superhuman force as in Egypt; no strange supernatural shapes as in India; the Parthenon is the home of humanity at ease, calm, ordered, sure of itself and the world. The Greeks flung a challenge to nature in the fullness of their joyous strength. They set their temples on the summit of a hill overlooking the wide sea, outlined against the circle of the sky. They would build what was more beautiful than hill and sea and sky and greater than all these. It matters not at all if the temple is large or small; one never thinks of the size. It matters not how much it is in ruins. A few white columns dominate the lofty height at Sunion as securely as the great mass of the Parthenon dominates all the sweep of sea and land around Athens. To the Greek architect man was the world. His mind could understand its laws; his spirit could discover its beauty.

- Q 6. Which of the following is not a characteristic of Greek architecture, according to the passage?
  - (a) A lack of excess
  - (b) Simplicity of form
  - (c) Expression of intellect
  - (d) Mystic spirituality
- Q 7. From the passage, which of the following combinations can be inferred to be correct?
  - (a) Hindoo temple-power of nature
  - (b) Parthenon-simplicity
  - (c) Egyptian temple-mysticism
  - (d) Greek temple-symbolism
- Q 8. According to the passage, what conception of man can be inferred from Egyptian architecture?
  - (a) Man is the center of creation.
  - (b) Egyptian temples save man from unhuman forces.
  - (c) Temples celebrate man's victory over nature.
  - (d) Man is inconsequential before the tremendous force of nature.
- Q 9. According to the passage, which of the following best explains why there is little symbolism in Greek art?
  - (a) The Greeks focused on thought rather than mysticism.
  - (b) The struggle between the flesh and the spirit found an end in Greek art.

- (c) Greek artists were spiritual materialists.  
 (d) Greek statues were embodiments rather than symbols of qualities.
- Q 10. “The Greeks flung a challenge to nature in the fullness of their joyous strength.” Which of the following best captures the ‘challenge’ that is being referred to?  
 (a) To build a monument matching the background colours of the sky and the sea.  
 (b) To build a monument bigger than nature’s creations.  
 (c) To build monuments that were more appealing to the mind and spirit than nature’s creations.  
 (d) To build a small but architecturally perfect monument.

### PASSAGE III

While I was in class at Columbia, struggling with the esoterica du jour, my father was on a bricklayer’s scaffold not far up the street, working on a campus building. Once we met up on the subway going home—he was with his tools, I with my books. My father was not interested in Thucydides, and I was not up on arches. My dad has built lots of places in New York City he cannot get into: Colleges, condos, office towers. He made his living on the outside. Once the walls were up, a place took on a different feel for him, as though he was not welcome anymore. Related by blood, we’re separated by class, my father and I. Being the white-collar child of a blue-collar parent means being the hinge on the door between two ways of life. With one foot in the working-class, the other in the middle class, people like me are Straddlers, at home in neither world, living a limbo life.

What drove me to leave what I knew? Born blue-collar, I still never felt completely at home among the tough guys and anti-intellectual crowd of my neighbourhood in deepest Brooklyn. I never did completely fit in among the preppies and suburban royalty of Columbia, either. It is like that for Straddlers. It was not so smooth jumping from Italian old-world style to US professional in a single generation. Others who were the first in their families to go to college, will tell you the same thing: the academy can render you unrecognizable to the very people who launched you into the world. The ideas and values absorbed in college the mom-and-pop orthodoxy that passed for truth for 18 years. Limbo folk may eschew polyester blends for sea-isle cotton, prefer Brie to Kraft slices. They marry outside the neighbourhood and raise their kids differently. They might not be in church on Sunday.

When they pick careers (not jobs), it is often a kind of work their parents never heard of or cannot understand. But for the white-collar kids of blue-collar parents, the office is not necessarily a sanctuary. In Corporate America, where the rules are based on notions foreign to working-class people, a Straddler can get lost. Social class counts at the office, even though nobody likes to admit it. Ultimately, corporate norms are based on middle-class values, business types say. From an early age, middle-class people learn how to get along, using diplomacy, nuance, and politics to grab what they need. It is as though they

are following a set of rules laid out in a manual that blue-collar families never have the chance to read.

People born into the middle class to parents with college degrees have lived lives filled with what French sociologist Pierre Bourdieu calls ‘cultural capital’. Growing up in an educated environment, they learn about Picasso and Mozart, stock portfolios and crème brûlée. In a home with cultural capital, there are networks: someone always has an aunt or golfing buddy with the inside track for an internship or some entry-level job. Dinner-table talk could involve what happened that day to mom and dad at the law firm, the doctors’ office, or the executive suite. Middle-class kids can grow up with a sense of entitlement that will carry them through their lives. This ‘belongingness’ is not just related to having material means, it also has to do with learning and possessing confidence in your place in the world. Such early access and direct exposure to culture in the home is the more organic, ‘legitimate’ means of appropriating cultural capital, Bourdieu tells us. Those of us possessing ‘ill-gotten Culture’ can learn it, but never as well. Something is always a little off about us, like an engine with imprecise timing. There’s greater match between middle-class lives and the institutions in which the middle class works and operates—universities or corporations. Children of the middle and upper classes have been speaking the language of the bosses and supervisors forever.

Blue-collar kids are taught by their parents and communities to work hard to achieve, and that merit is rewarded. But no blue-collar parent knows whether such things are true in the middle-class world. Many professionals born to the working-class report feeling out of place and out manoeuvred in the office. Soon enough, Straddlers learn that straight talk would not always cut. Resolving conflicts head-on and speaking your mind does not always work, no matter how educated the Straddler is.

In the working-class, people perform jobs in which they are closely supervised and are required to follow orders and instructions. That, in turn, affects how they socialize their children. Children of the working-class are brought up in a home in which conformity, obedience and intolerance for back talk are the norm—the same characteristics that make a good factory worker.

- Q 11. According to the passage, which of the following statements about ‘cultural capital’ is not true?  
 (a) It socializes children early into the norms of middle class institutions.  
 (b) It helps them learn the language of universities and corporations.  
 (c) It creates a sense of enlightenment in middle-class children.  
 (d) It develops bright kids into Straddlers.
- Q 12. According to the passage, the patterns of socializations of working-class children make them most suited for jobs that require.  
 (a) Diplomacy  
 (b) Compliance with orders  
 (c) Enterprise and initiative  
 (d) High risk taking

- Q 13. When Straddlers enter white collar jobs, they get lost because:
- They are thrown into an alien value system.
  - Their families have not read the rules in corporate manuals.
  - They have no one to guide them through the corporate maze.
  - They miss the ‘mom and pop orthodoxy’.
- Q 14. What does the author’s statement, “My father was not interested in Thucydides, and I was not up on arches”, illustrate?
- Organic cultural capital
  - Professional arrogance and social distance
  - Evolving social transformation
  - Breakdown of family relationship
- Q 15. Which of the following statements about straddlers does the passage not support explicitly?
- Their food preferences may not match those of their parents.
  - They may not keep up some central religious practices of their parents.
  - They are at home neither in the middle class nor in the working-class.
  - Their political ideologies may differ from those of their parents.

#### PASSAGE IV

Pure love of learning, of course, was a less compelling motive for those who became educated for careers other than teaching. Students of law in particular had a reputation for being materialistic careerists in an age when law was becoming known as “the lucrative science” and its successful practice the best means for rapid advancement in the government of both church and state. Medicine too had its profit-making attraction. Those who did not go on to law or medicine could, if they had been well trained in the arts, gain positions at royal courts or rise in the clergy. Eloquent testimony to the profit motive behind much of twelfth-century education was the lament of a student of Abelard around 1150 that “Christians educate their sons ... for gain, in order that the one brother, if he be a clerk, may help his father and mother and his other brothers, saying that a clerk will have no heir and whatever he has will be ours and the other brothers.” With the opening of positions in law, government, and the church, education became a means for advancement not only in income but also in status. Most who were educated were wealthy, but in the twelfth century, more often than before, many were not and were able to rise through the ranks by means of their education. The most familiar examples are Thomas Becket, who rose from a humble background to become chancellor of England and then archbishop of Canterbury, and John of Salisbury, who was born a “plebeian” but because of his reputation for learning died as bishop of Chartres.

The instances of Becket and John of Salisbury bring us to the most difficult question concerning twelfth-century

education: To what degree was it still a clerical preserve? Despite the fact that throughout the twelfth century the clergy had a monopoly of instruction, one of the outstanding mediavlists of our day, R. W. Southern, refers with good reason to the institutions staffed by the clergy as “secular schools.” How can we make sense out of the paradox that twelfth-century schools were clerical and yet “secular”?

Let us look at the clerical side first. Not only were all twelfth-century teachers except professional and craftsmen in church orders, but in northern Europe students in school had clerical status and looked like priests. Not that all really were priests, but by virtue of being students all were awarded the legal privileges accorded to the clergy. Furthermore, the large majority of twelfth-century students, outside of the possible exception of Italy, if not already priests became so after their studies were finished. For these reasons, the term “cleric” was often used to denote a man who was literate and the term “layman” one who was illiterate. The English word for cleric, clerk, continued for a long time to be a synonym for student or for a man who could write, while the French word cleric even today has the connotation of intellectual.

Despite all this, twelfth-century education was taking on many secular qualities in its environment, goals, and curriculum. Student life obviously became more secular when it moved out from the monasteries into the bustling towns. Most students wandered from town to town in search not only of good masters but also of worldly excitement, and as the twelfth century progressed they found the best of each in Paris. More important than environment was the fact that most students, even though they entered the clergy, had secular goals. Theology was recognized as the “queen of the sciences,” but very few went on to it. Instead they used their study of the liberal arts as a preparation for law, medicine, government service, or advancement in the ecclesiastical hierarchy.

This being so, the curriculum of the liberal arts became more sophisticated and more divorced from religion. Teaching was still almost exclusively in Latin, and the first book most often read was the Psalter, but further education was no longer similar to that of a choir school. In particular, the discipline of rhetoric was transformed from a linguistic study into instruction in how to compose letters and documents; there was a new stress on logic; and in all the liberal arts and philosophy texts more advanced than those known in the early Middle Ages were introduced.

Along with the rise of logic came the translation of Greek and Arabic philosophical and scientific works. Most important was the translation of almost all the writings of Aristotle, as well as his sophisticated Arabic commentators, which helped to bring about an intellectual revolution based on Greek rationalism. On a more prosaic level, contact with Arabs resulted in the introduction in the twelfth century of the Arabic numeral system and the concept of zero. Though most westerners first resisted this and made crude jokes about the zero as an ambitious number “that counts for nothing and yet wants to be counted,” the system steadily made its inroads first in Italy and then throughout Europe, thereby vastly simplifying the arts of computation and record keeping.

- Q 16. According to the passage, which of the following is the most noteworthy trend in education in twelfth-century Europe?
- Secularization of education
  - Flowering of theology as the queen of the sciences
  - Wealthy people increasingly turning to education
  - Rise of the clergy's influence on the curriculum
- Q 17. What does the sentence "Christians educate their sons... will be ours and the other brothers" imply?
- The Christian family was a close-knit unit in the twelfth century.
  - Christians educated their sons not so much for the love of learning as for material gain.
  - Christians believed very strongly in educating their sons in the Church.
  - The relationship between Christian parents and their sons was exploitative in the twelfth century.
- Q 18. According to the passage, twelfth century schools were clerical and yet secular because:
- Many teachers were craftsmen and professionals who did not form part of the church.
  - While the students had the legal privileges accorded to the clergy and looked like priests, not all were really priests.
  - The term 'cleric' denoted a literate individual rather than a strict association with the church.
  - Though the clergy had a monopoly in education, the environment, objectives and curriculum in the schools were becoming secular.
- Q 19. According to the author, in the twelfth century, individuals were motivated to get higher education because it:
- was a means for material advancement and higher status.
  - gave people with wealth an opportunity to learn.
  - offered a coveted place for those with a love of learning.
  - directly added to the income levels of people.
- Q 20. According to the passage, what led to the secularization of the curriculum of the liberal arts in the twelfth century?
- It was divorced from religion and its influences.
  - Students used it mainly as a base for studying law and medicine.
  - Teaching could no longer be conducted exclusively in Latin.
  - Arabic was introduced into the curriculum.

## PASSAGE V

The invention of the gas turbine by Frank Whittle in England and Hans von Ohain in Germany in 1939 signalled the beginning of jet transport. Although the French engineer Lorin had visualized the concept of jet propulsion more than 25 years earlier, it took improved materials and the genius of Whittle and von Ohain to recognize the advantage that a

gas turbine offered over a piston engine, including speeds in excess of 350 miles per hour. The progress from the first flight of liquid propellant rocket and jet-propelled aircraft in 1939 to the first faster-than-sound (supersonic) manned airplane (the Bell X-1) in 1947 happened in less than a decade. This then led very rapidly to a series of supersonic fighters and bombers, the first of which became operational in the 1950s. World War II technology foundations and emerging Cold War imperatives then led us into space with the launch of Sputnik in 1957 and the placing of the first man on the moon only 12 years later-a mere 24 years after the end of World War II.

Now, a hypersonic flight can take you anywhere in the planet in less than four hours. British Royal Air force and Royal Navy, and the air forces of several other countries are going to use a single-engine cousin to the F/A-22 called the F-35 Joint Strike Fighter. These planes exhibit stealthy angles and coatings that make it difficult for radar to detect them, among aviation's most cutting-edge advances in design. The V-22, known as tilt-rotor, part helicopter, part airplane, takes off vertically, then tilts its engine forward for winged flight. It provides speed, three times the payload, five times the range of the helicopters it is meant to replace. The new fighter, F-22 Raptor, with more than a million parts, shows a perfect amalgamation of stealth, speed, avionics and agility.

It seems conventional forms, like the Predator and Global Hawk are passé, the stealthier Unmanned Aerial Vehicles (UAVs) are in. They are shaped like kites, bats and boomerang, all but invisible to the enemy radar and able to remain over hostile territory without any fear of getting grilled if shot down. Will the UAVs take away pilots' jobs permanently? Can a computer-operated machine take a smarter and faster decision in a war-like situation? The new free-flight concept will probably supplement the existing air traffic control system by computers on each plane to map the altitude, route, weather and other planes; and a decade from now, there will be no use of radar any more.

How much bigger can the airplanes get? In the '50s they got speed, in the '80s they became stealthy. Now, they are getting smarter thanks to computer automation. The change is quite huge: from the four-seater to the A380 airplane. It seems we are now trading speed for size as we build a new superjumbo jet, the 555 seater A380, which will fly at almost the same speed of Boeing 707, introduced half a century ago, but with an improved capacity, range, greater fuel economy. A few years down the line will come the truly larger model, to be known as 747X. In the beginning of 2005, the A380, the world's first fully double-decked superjumbo passenger jet, weighing 1.2 million pounds, may carry a load of about 840 passengers.

Barring the early phase, civil aviation has always lagged behind the military technologies (of jet engines, lightweight composite materials, etc.). There are two fundamental factors behind the decline in commercial aeronautics in comparison to military aeronautics. There is no collective vision of our future such as the one that drove us in the past. There is also a need for a more aggressive pool of airplane design talents to maintain an industry that continues to find a multibillion dollar-a-year market for its product.

Can the history of aviation technology tell us something about the futures of aeronautics? Have we reached a final state in our evolution to a mature technology in aeronautics? Are the challenges of coming out with the ‘better, cheaper, faster’ designs somehow inferior to those that are suited for ‘faster, higher, further’? Safety should improve greatly as a result of the forthcoming improvements in airframes, engine, and avionics. Sixty years from now, aircraft will recover on their own if the pilot loses control. Satellites are the key not only to Global Positioning System (GPS) navigation but also to in-flight communication, up linked weather, and even in-flight e-mail. Although there is some debate about what type of engines will power future airplanes—light turbines, turbocharged diesels, or both—there is little debate about how these power plants will be controlled. Pilots of the future can look forward to more and better on-board safety equipment.

**Q 21.** According to the first paragraph of the passage, which of the following statements is not false?

- (a) Frank Whittle and Hans Von Ohain were the first to conceive of jet propulsion.
- (b) Supersonic fighter planes were first used in the Second World War.
- (c) No man had traveled faster than sound until the 1950s.
- (d) The exploitation of jet propulsion for supersonic aviation has been remarkably fast.

**Q 22.** What is the fourth paragraph of the passage about?

- (a) Stealth, speed, and agility of new aircraft
- (b) The way aircraft size has been growing
- (c) Use of computer automation in aircraft
- (d) Super-jumbo jets that can take more than 500 passengers

**Q 23.** What is the most noteworthy difference between V-22 and a standard airplane? The V-22:

- (a) Can take off vertically
- (b) Has winged flight
- (c) Has excellent payload
- (d) Has a very high range

**Q 24.** Why might radars not be used a decade from now?

- (a) Stealth technology will advance so much that it is pointless to use radar to detect aircraft.
- (b) UAVs can remain over hostile territory without any danger of being detected.
- (c) Computers on board may enable aircraft to manage safe navigation on their own.
- (d) It is not feasible to increase the range of radars.

**Q 25.** According to the author, commercial aeronautics, in contrast to military aeronautics, has declined because, among other things:

- (a) Speed and technology barriers are more easily overcome in military aeronautics.
- (b) The collective vision of the past continues to drive civil and commercial aeronautics.
- (c) Though the industry has a huge market, it has not attracted the right kind of aircraft designers.

- (d) There is a shortage of materials, like light weight composites, used in commercial aeronautics.

**Direction for questions 26 to 30:** *In each question, the word at the top of the table is used in four different ways, numbered 1 to 4. Choose the option in which the usage of the word is incorrect or inappropriate.*

**Q 26. Help**

- (a) This syrup will help your cold.
- (b) I cannot help the colour of my skin.
- (c) Ranjit may help himself with the beer in the fridge.
- (d) Do you really expect me to help you out with cash?

**Q 27. Reason**

- (a) Your stand is beyond all reason.
- (b) Has she given you any reason for her resignation?
- (c) There is little reason in your pompous advice.
- (d) How do you deal with a friend who does not listen to a reason?

**Q 28. Paper**

- (a) Your suggestions look great on the paper, but are absolutely impractical.
- (b) Do you know how many trees are killed to make a truckload of paper?
- (c) So far I have been able to paper over the disagreements among my brothers.
- (d) Dr Malek will read a paper on criminalization of politics.

**Q 29. Business**

- (a) I want to do an MBA before going into business.
- (b) My wife runs profitable business in this suburb.
- (c) If we advertise we will get twice as much business as we have now.
- (d) How you spend money is as much my business as yours.

**Q 30. Service**

- (a) Customers have to service themselves at this canteen.
- (b) It is a service lift; do not get into it.
- (c) I'm not making enough even to service the loan.
- (d) Joyti's husband has been on active service for three months.

**Direction for questions 31 to 38:** *There are two gaps in each of the following sentences. From the pairs of words given, choose the one that fills the gaps most appropriately. The first word in the pair should fill the first gap.*

**Q 31.** This simplified \_\_\_\_\_ to the decision-making process is a must read for anyone \_\_\_\_\_ important real estate, personal, or professional decisions.

- (a) primer, maximizing
- (b) tract, enacting
- (c) introduction, under
- (d) guide, facing

- Q 32. Physicians may soon have \_\_\_\_\_ to help paralyzed people move their limbs by bypassing the \_\_\_\_\_ nerves that once controlled their muscles.

  - (a) instruments, detrimental
  - (b) ways, damaged
  - (c) reason, involuntary
  - (d) impediments, complex

Q 33. The Internet is a medium where users have nearly \_\_\_\_\_ choices and \_\_\_\_\_ constraints about where to go and what to do.

  - (a) unbalanced, nonexistent
  - (b) embarrassing, no
  - (c) unlimited, minimal
  - (d) choking, shocking

Q 34. The best punctuation is that of which the reader is least conscious; for when punctuation, or lack of it, \_\_\_\_\_ itself, it is usually because it \_\_\_\_\_.

  - (a) obtrudes, offends
  - (b) enjoins, fails
  - (c) conceals, recedes
  - (d) effaces, counts

Q 35. The argument that the need for a looser fiscal policy to \_\_\_\_\_ demand outweighs the need to \_\_\_\_\_ budget deficits is persuasive.

  - (a) assess, minimize
  - (b) outstrip, eliminate
  - (c) stimulate, control
  - (d) restrain, conceal

Q 36. The Athenians on the whole were peaceful and prosperous; they had \_\_\_\_\_ to sit at home and think about the universe and dispute with Socrates, or to travel abroad and \_\_\_\_\_ the world.

  - (a) leisure, explore
  - (b) time, ignore
  - (c) ability, suffer
  - (d) temerity, understand

Q 37. Their achievement in the field of literature is described as \_\_\_\_\_; sometimes it is even called \_\_\_\_\_.

  - (a) magnificent, irresponsible
  - (b) insignificant, influential
  - (c) significant, paltry
  - (d) unimportant, trivial

Q 38. From the time she had put her hair up, every man she had met had groveled before her and she had acquired a mental attitude towards the other sex which was a blend of \_\_\_\_\_ and \_\_\_\_\_.

  - (a) admiration, tolerance
  - (b) indifference, contempt
  - (c) impertinence, temperance
  - (d) arrogance, fidelity

**Direction** for questions 39 to 46: *The sentences given in each questions, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose*

*the most logical order of sentences from among the given to construct a coherent paragraph.*

- E. When the third quarter GDP showed growth of 7.2 per cent and the monthly unemployment rate dipped to 6 per cent, euphoria gripped the US capital.  
 (a) ACEDB      (b) CEDAB  
 (c) ECABD      (d) ECBDA
- Q 43. A. To much of the Labour movement, it symbolizes the brutality of the upper classes.  
 B. And to everybody watching, the current mess over foxhunting symbolizes the government's weakness.  
 C. To foxhunting's supporters, Labour's 1991 manifesto commitment to ban it symbolizes the party's metropolitan roots and hostility to the countryside.  
 D. Small issues sometimes have large symbolic power.  
 E. To those who enjoy thundering across the countryside in red coats after foxes, foxhunting symbolizes the ancient roots of rural lives.  
 (a) DEACB      (b) ECDBA  
 (c) CEADB      (d) DBAEC
- Q 44. A. In the case of the King Merolchazzar's courtship of the Princess of the Outer Isles, there occurs a regrettable hitch.  
 B. She acknowledges the gifts, but no word of a meeting date follows.  
 C. The monarch, hearing good reports of a neighbouring princess, dispatches messengers with gifts to her court, beseeching an interview.  
 D. The princess names a date, and a formal meeting takes place; after that everything buzzes along pretty smoothly.  
 E. Royal love affairs in olden days were conducted on the correspondence method.  
 (a) ACBDE      (b) ABCDE  
 (c) ECDAB      (d) ECBAD
- Q 45. A. Who can trace to its first beginnings the love of Damon for Pythias, of David for Jonathan, of Swan for Edgar?  
 B. Similarly with men.  
 C. There is about great friendships between man and man a certain inevitability that can only be compared with the age-old association of ham and eggs.  
 D. One simply feels that it is one of the things that must be so.  
 E. No one can say what was the mutual magnetism that brought the deathless partnership of these wholesome and palatable foodstuffs about.  
 (a) ACBED      (b) CEDBA  
 (c) ACEBD      (d) CEABD
- Q 46. A. Events intervened, and in the late 1930s and 1940s, Germany suffered from "over-branding".  
 B. The British used to be fascinated by the home of Romanticism.  
 C. But reunification and the federal government's move to Berlin have prompted Germany to think again about its image.  
 D. The first foreign package holiday was a tour of Germany organized by Thomas Cook in 1855.
- E. Since then, Germany has been understandably nervous about promoting itself abroad.  
 (a) ACEBD      (b) DECAB  
 (c) BDAEC      (d) DBAEC
- Direction for questions 47 to 50:** Four alternative summaries are given below each text. Choose the option that best captures the essence of the text.
- Q 47. Some decisions will be fairly obvious—"no-brainers". Your bank account is low, but you have a two-week vacation coming up and you want to get away to some place warm to relax with your family. Will you accept your 'in-laws' offer of free use of their Florida beachfront condo? Sure. You like your employer and feel ready to move forward in your career. Will you step in for your boss for three weeks while she attends a professional development course? Of course.
- A. Some decisions are obvious under certain circumstances. You may, for example, readily accept a relative's offer of free holiday accommodation. Or step in for your boss when she is away.  
 B. Some decisions are no-brainers. You need not think when making them. Examples are condo offers from in-laws and job offers from bosses when you bank account is low or boss is away.  
 C. Easy decisions are called "no-brainer" because they do not require any cerebral activity. Examples such as accepting free holiday accommodation abound in our lives.  
 D. Accepting an offer from in-laws when you are short on funds and want a holiday is a no-brainer. Another no-brainer is taking the boss's job when she is away.  
 (a) A      (b) B      (c) C      (d) D
- Q 48. Physically, inertia is a feeling that you cannot move; mentally, it is a sluggish mind. Even if you try to be sensitive, if your mind is sluggish, you just do not feel anything intensely. You may even see a tragedy enacted in front of your eyes and not be able to respond meaningfully. You may see one person exploiting another, one group persecuting another and not be able to get angry. Your energy is frozen. You are not deliberately refusing to act; you just do not have the capacity.
- A. Inertia makes your body and mind sluggish. They become insensitive to tragedies, exploitation, and persecution because it freezes your energy and incapacitates it.  
 B. When you have inertia you do not act although you see one person exploiting another or one group persecuting another. You do not get angry because you are incapable.  
 C. Inertia is of two types—physical and mental. Physical inertia restricts bodily movements. Mental inertia prevents mental response to events enacted in front of your eyes.  
 D. Physical inertia stops your body from moving; mental inertia freezes your energy, and stops your

mind from responding meaningfully to events, even tragedies, in front of you.

- |       |       |
|-------|-------|
| (a) A | (b) B |
| (c) C | (d) D |

Q 49. Try before you buy. We use this memorable saying to urge you to experience the consequences of an alternative before you choose it, whenever this is feasible. If you are considering buying a van after having always owned sedans, rent one for a week or borrow a friend's. By experiencing the consequences first hand, they become more meaningful. In addition, you are likely to identify consequences you had not even thought of before. May be you will discover that it is difficult to park the van in your small parking space at work, but that, on the other hand, your elderly father has a much easier time getting in and out of it.

- A. If you are planning to buy a van after being used to sedans, borrow a van or rent it and try it before deciding to buy it. Then you may realize that parking a van is difficult while it is easier for your elderly father to get in and out of it.
- B. Before choosing an alternative, experience its consequence if feasible. If, for example, you want to change from sedans to a van, try one before buying it. You will discover aspects you may never have thought of.
- C. Always try before you buy anything. You are bound to discover many consequences. One of the consequences of going in for a van is that it is more difficult to park than sedans at the office car park.
- D. We urge you to try products such as vans before buying them. Then you can experience consequences you have not thought of such as parking problems. But your father may find vans more comfortable than cars.

- |       |       |
|-------|-------|
| (a) A | (b) B |
| (c) C | (d) D |

Q 50. It is important for shipping companies to be clear about the objectives for maintenance and materials management—as to whether the primary focus is on service level improvement or cost minimization. Often when certain systems are set in place, the cost minimization objective and associated procedure become more important than the flexibility required for service level improvement. The problem really arises since cost minimization tends to focus on out of pocket costs which are visible, while the opportunity costs, often greater in value, are lost sight of.

- A. Shipping companies have to either minimize costs or maximize quality. If they focus on cost minimization, they will reduce quality. They should focus on service level improvement, or else opportunity costs will be lost sight of.
- B. Shipping companies should determine the primary focus of their maintenance and materials management. Focus on cost minimization may reduce visible costs, but ignore greater invisible costs and impair service quality.
- C. Any cost minimization program in shipping is bound to lower the quality of service. Therefore, shipping companies must be clear about the primary focus of their maintenance and materials management before embarking on cost minimization.
- D. Shipping companies should focus on quality level improvement rather than cost cutting. Cost cutting will lead to untold opportunity costs. Companies should have systems in place to make the service level flexible.

- |       |       |
|-------|-------|
| (a) A | (b) B |
| (c) C | (d) D |

# ANSWERS



## SECTION 1—VERBAL ABILITY

Q. No.	Answer						
1	(d)	2	(c)	3	(a)	4	(b)
5	(c)	6	(d)	7	(b)	8	(d)
9	(a)	10	(c)	11	(d)	12	(b)
13	(a)	14	(b)	15	(d)	16	(a)
17	(b)	18	(d)	19	(a)	20	(b)
21	(b)	22	(b)	23	(a)	24	(c)
25	(c)	26	(c)	27	(d)	28	(a)
29	(b)	30	(a)	31	(d)	32	(b)
33	(c)	34	(a)	35	(c)	36	(a)
37	(d)	38	(b)	39	(b)	40	(a)
41	(d)	42	(d)	43	(a)	44	(c)
45	(c)	46	(c)	47	(a)	48	(b)
49	(b)	50	(d)				

## ➤ SECTION 2—LOGICAL REASONING

**Direction for questions 1 to 4:** Each question is followed by two statements, A and B Answer each questions using the following instructions.

Choose (a) if the question can be answered by using statement A alone but not by using B alone.

Choose (b) if the question can be answered by using statement B alone but not by using A alone.

Choose (c) if the question can be answered by using either statement alone.

Choose (d) if the question can be answered by using both the statements together but not by either statement.

- Q 1. In a cricket match, the ‘man of the match’ award is given to the player scoring the highest number of runs. In case of a tie, the player (out of those locked in the tie) who has taken the higher number of catches is chosen. Even thereafter if there is a tie, the player (out of those locked in the tie) who has dropped fewer catches is selected. Aakash, Biplab and Chirag who were contenders for the award dropped at least one catch each. Biplab dropped 2 catches more than Aakash did, scored 50, and took 2 catches. Chirag got two chances to catch and dropped both. Who was the ‘man of the match’?  
(A) Chirag made 15 runs less than both Aakash and Biplab.  
(B) The catches dropped by Biplab are 1 more than the catches taken by Aakash.

Q 2. Four friends, A, B, C and D got the top four ranks in a competitive examination, but A did not get the first, B did not get the second, C did not get the third, and D did not get the fourth rank. Who secured which rank?  
(A) Neither A nor D were among the first 2.  
(B) Neither B nor C was third or fourth.

Q 3. The members of a local club contributed equally to pay Rs 600 towards a donation. How much did each one pay?  
(A) If there had been five fewer members, each one would have paid an additional Rs 10.  
(B) There were at least 20 members in the club, and each one paid not more than Rs 30.

Q 4. A family has only one kid. The father says “after  $n$  years, my age will be 4 times the age of my kids.” The mother says “after  $n$  years, my age will be 3 times that of my kid.” What will be the combined ages of the parents after  $n$  years?  
(A) The age difference between the parents is 10 years.  
(B) After  $n$  years, the kid is going to be twice as old as she is now.

**Direction for question 5:** Answer the following questions independently.

- Q 5. Seventy per cent of the employees in a multinational corporation have VCD players, 75 per cent have microwave ovens, 80 per cent have ACs and 85 per cent have washing machines. At least what percentage of employees has all four gadgets?  
 (a) 15                   (b) 5                   (c) 10                   (d) Cannot be determined

**Direction for questions 6 to 9:** Answer the following questions on the basis of the information given below.

Four families decided to attend the marriage ceremony of one of their colleagues. One family has no kids, while the others have at least one kid each. Each family with kids has at least one kid attending the marriage. Given below is some information about the families and who reached when to attend the marriage.

The family with 2 kids came just before the family with no kids.

Shanthi who does not have any kids reached just before Sridevi's family.

Shantin who does not have any kids reached just as Sunil and his wife reached last with their only kid.

Anil is not the husband of Joya.

Anil and Raj are fathers.

Sridevi's and Anita's daughters go to the same school.

Joya came before Shanthi and met Anita when she reached the venue.

Raman stays the farthest from the venue

Rajan stays the farthest from the venue.  
Raj said his son could not come because of his examinations

**Direction for questions 10 to 14:** Answer the following questions on the basis of the information given below.

Recently, the answers of a test held nationwide were leaked to a group of unscrupulous people. The investigative agency has arrested the mastermind and nine other people A, B, C, D, E, F, G, H and I in this matter. Interrogating them, the following facts have been obtained regarding their operation.

Initially the mastermind obtains the correct answer key. All the others create their answer key from one or two people who already possess the same. These people are called his/her “sources”. If the person has two sources, then he/she compares the answer keys obtained from both sources. If the key to a question from both sources is identical, it is copied, otherwise it is left blank. If the person has only one source, he/she copies the source’s answers into his/her copy. Finally, each person compulsorily replaces one of the answers (not a blank one) with a wrong answer in his/her answer key.

The paper contained 200 questions; so the investigative agency has ruled out the possibility of two or more of them introducing wrong answers to the same question. The investigative agency has a copy of the correct answer key and has tabulated the following data. These data represent question numbers.

Name	Wrong Answer(s)	Blank Answer(s)
A	46	—
B	96	46, 90, 25
C	27, 56	17, 46, 90
D	17	—
E	46, 90	—
F	14, 46	92, 90
G	25	—
H	46, 92	—
I	27	17, 26, 90



**Direction for questions 15 to 18:** Answer the following questions on the basis of the information given below.

The plan above shows an office block for six officers, A, B, C, D, E and F. Both B and C occupy offices to the right of corridor (as one enters the office block) and A occupies an office to the left of the corridor. E and F occupy offices on opposite sides of the corridor but their offices do not face each other. The offices of C and D face each other. E does not have a corner office. F's office is further down the corridor than A's, but on the same side.

- Q 16. Whose office faces A's office?  
 (a) B                    (b) C                    (c) D                    (d) E
- Q 17. Who is/are F's neighbour(s)?  
 (a) A only              (b) A and D            (c) C only              (d) B and C
- Q 18. D was heard telling someone to go further down the corridor to the last office on the right. To whose room was he trying to direct that person?  
 (a) A                    (b) B                    (c) C                    (d) F

**Direction for questions 19 to 22:** Answer the following questions on the basis of the information given below.

Seven faculty members at a management institute frequent a lounge for strong coffee and stimulating conversation. On being asked about their visit to the lounge last Friday we got the following responses.

JC — I came in first, and the next two persons to enter were SS and SM. When I left the lounge, JP and VR were present in the lounge. DG left with me.

JP — When I entered the lounge with VR, JC was sitting there. There was someone else, but I cannot remember who it was.

SM — I went to the lounge for a short while, and met JC, SS and DG in the lounge on that day.

SS — I left immediately after SM left.

DG — I met JC, SS, SM, JP and VR during my first visit to the lounge. I went back to my office with JC when I went to the lounge the second time, JP and VR were there.

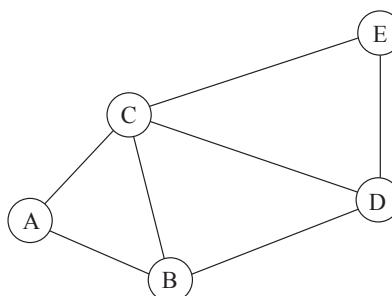
PK — I had some urgent work, so I did not sit in the lounge that day, but just collected my coffee and left. JP and DG were the only people in the lounge while I was there.

VR — No comments.

- Q 19. Based on the responses, which of the two JP or DG, entered the lounge first?  
 (a) JP                    (b) DG  
 (c) Both entered together                    (d) Cannot be determined
- Q 20. Who was sitting with JC when JP entered the lounge?  
 (a) SS                    (b) SM                    (c) DG                    (d) PK
- Q 21. How many of the seven members did VR meet on Friday in the lounge?  
 (a) 2                    (b) 3                    (c) 4                    (d) 5
- Q 22. Who were the last two faculty members to leave the lounge?  
 (a) JC and DG            (b) PK and DG            (c) JP and PK            (d) JP and DG

**Direction for questions 23 and 24:** Answer the following questions on the basis of the information given below.

Shown below is a layout of major streets in a city:



Two days (Thursday and Friday) are left for campaigning before a major election, and the city administration has received requests from five political parties for taking out their processions along the following routes.

Congress	:	A-C-D-E
BJP	:	A-B-D-E
SP	:	A-B-C-E
BSP	:	B-C-E
CPM	:	A-C-D

Street B-D cannot be used for a political procession on Thursday due to a religious procession. The district administration has a policy of not allowing more than one procession to pass along the same street on the same day. However, the administration must allow all parties to take out their procession during these two days.

Q 23. Congress procession can be allowed

- (a) only on Thursday.
- (b) only on Friday.
- (c) on either day.
- (d) only if the religious procession is cancelled.

Q 24. Which of the following is not true?

- (a) Congress and SP can take out their processions on the same day.
- (b) The CPM procession cannot be allowed on Thursday.
- (c) The BJP procession can only take place on Friday.
- (d) Congress and BSP can take out their processions on the same day.

**Direction for questions 25 to 28:** Answer the following questions on the basis of the information given below table.

Below is a table that lists countries region-wise. Each region-wise list is sorted, first by birth rate and then alphabetically by the name of the country. We now wish to merge the region-wise list into one consolidated list and provide overall rankings to each country based first on birth rate and then on death rate. Thus, if some countries have the same birth rate, then the country with a lower death rate will be ranked higher. Further, countries having identical birth and death rates will get the same rank.

For example, if two countries are tied for the third position, then both will be given rank 3, while the next country (in the ordered list) will be ranked 5.

Rank	Country	Birth Rate	Death Rate	Region
1	South Africa	36	12	Africa
2	Egypt	39	13	Africa
3	Cameroon	42	22	Africa
4	Mozambique	45	18	Africa
5	Zaire	45	18	Africa
6	Ghana	46	14	Africa
7	Angola	47	23	Africa
8	Madagascar	47	22	Africa
9	Morocco	47	16	Africa
10	Tanzania	47	17	Africa
11	Ethiopia	48	23	Africa
12	Ivory Coast	43	23	Africa
13	Rhodesia	48	14	Africa
14	Uganda	48	17	Africa
15	Nigeria	49	22	Africa
16	Saudi Arabia	49	19	Africa
17	Sudan	49	17	Africa
18	Algeria	50	16	Africa
19	Kenya	50	14	Africa
20	Upper Volta	50	28	Africa

<b>Rank</b>	<b>Country</b>	<b>Birth Rate</b>	<b>Death Rate</b>	<b>Region</b>
1	Germany (FRG)	10	12	Europe
2	Austria	12	13	Europe
3	Belgium	12	12	Europe
4	Germany (DRG)	12	14	Europe
5	Sweden	12	11	Europe
6	Switzerland	12	9	Europe
7	UK	12	12	Europe
8	Netherlands	13	8	Europe
9	France	14	11	Europe
10	Italy	14	10	Europe
11	Greece	16	9	Europe
12	Bulgaria	17	10	Europe
13	Hungary	18	12	Europe
14	Spain	18	8	Europe
15	USSR	18	9	Europe
16	Yugoslavia	18	8	Europe
17	Czech Rep.	19	11	Europe
18	Portugal	19	10	Europe
19	Romania	19	10	Europe
20	Poland	20	9	Europe

<b>Rank</b>	<b>Country</b>	<b>Birth Rate</b>	<b>Death Rate</b>	<b>Region</b>
1	Japan	16	6	Asia
2	Korea (ROK)	26	6	Asia
3	Sri Lanka	26	9	Asia
4	Taiwan	26	5	Asia
5	Malaysia	30	6	Asia
6	China	31	11	Asia
7	Thailand	34	10	Asia
8	Turkey	34	12	Asia
9	India	36	15	Asia
10	Burma	38	15	Asia

<b>Rank</b>	<b>Country</b>	<b>Birth Rate</b>	<b>Death Rate</b>	<b>Region</b>
11	Iran	42	12	Asia
12	Vietnam	42	17	Asia
13	Korea (DPRK)	43	12	Asia
14	Pakistan	44	14	Asia
15	Nepal	46	20	Asia
16	Bangladesh	47	19	Asia
17	Syria	47	14	Asia
18	Iraq	48	14	Asia
19	Afghanistan	52	30	Asia

<b>Rank</b>	<b>Country</b>	<b>Birth Rate</b>	<b>Death Rate</b>	<b>Region</b>
1	U.S.A.	15	9	N. America
2	Canada	16	7	N. America
3	Cuba	20	6	N. America
4	Mexica	40	7	N. America
1	Australia	16	8	Pacific
2	Philippines	34	10	Pacific
3	Indonesia	38	16	Pacific
1	Argentina	22	10	S. America
2	Chile	22	7	S. America
3	Colombia	34	10	S. America
4	Brazil	36	10	S. America
5	Venezuela	36	6	S. America
6	Gautemala	40	14	S. America
7	Peru	40	13	S. America
8	Ecuador	42	11	S. America

Q 25. In the consolidated list, what would be the overall rank of the Philippines?



Q 26. In the consolidated list, how many countries would rank below Spain and above Taiwan?

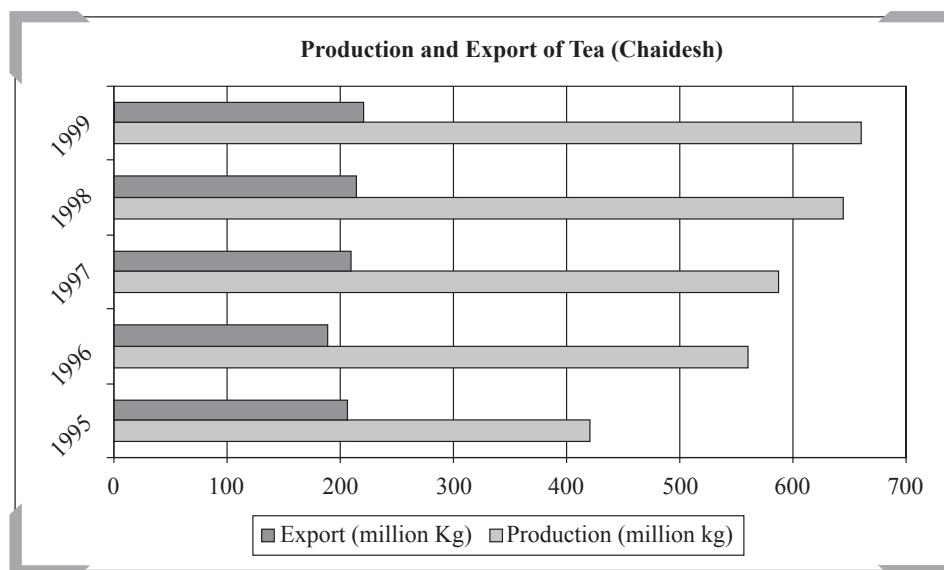
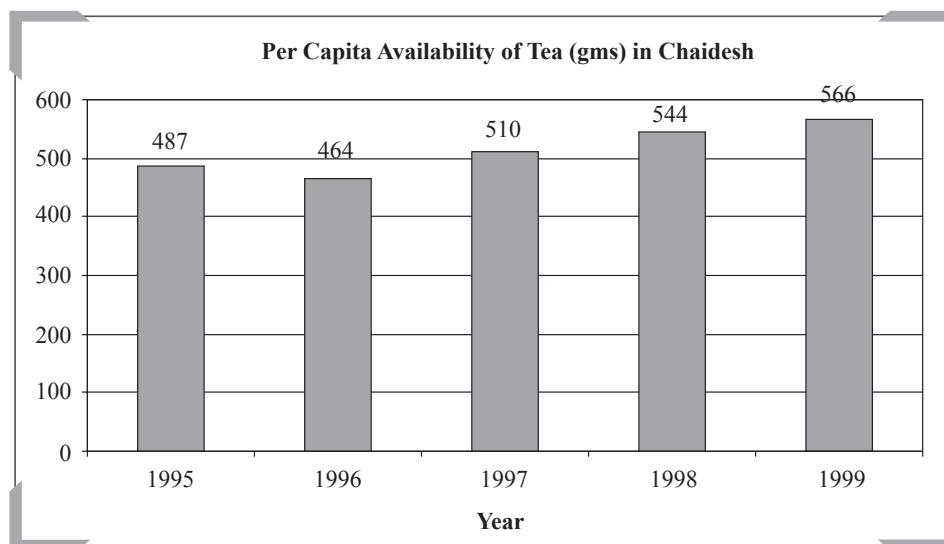


Q 27. In the consolidated list, which country ranks 37th?

- (a) South Africa    (b) Brazil    (c) Turkey    (d) Venezuela

Q 28. In the consolidated list, how many countries in Asia will rank lower than every country in South America, but higher than at least one country in Africa?

**Direction for questions 29 to 31:** Answer the following questions based on the chart given below.

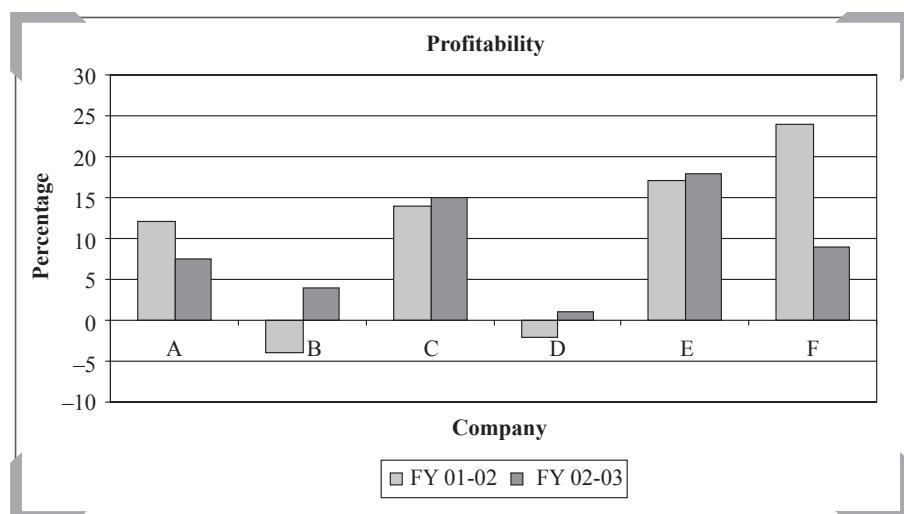
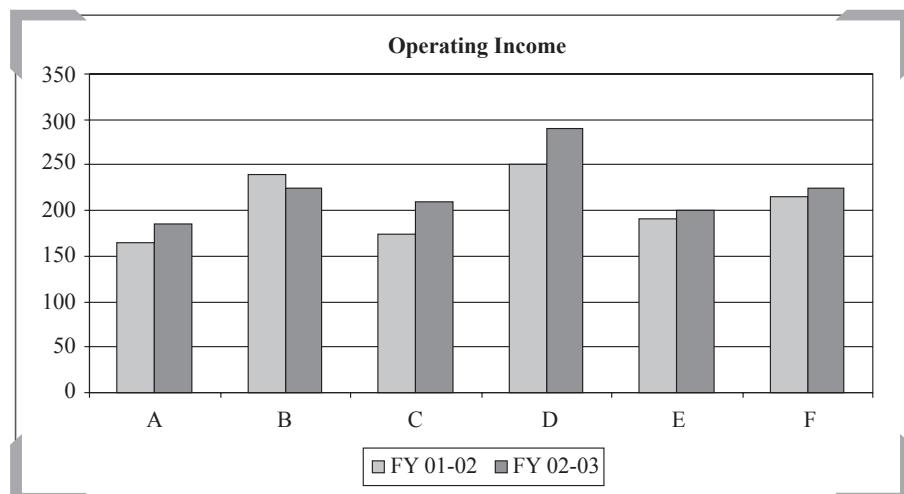


(Note: Availability is defined as production less export.)

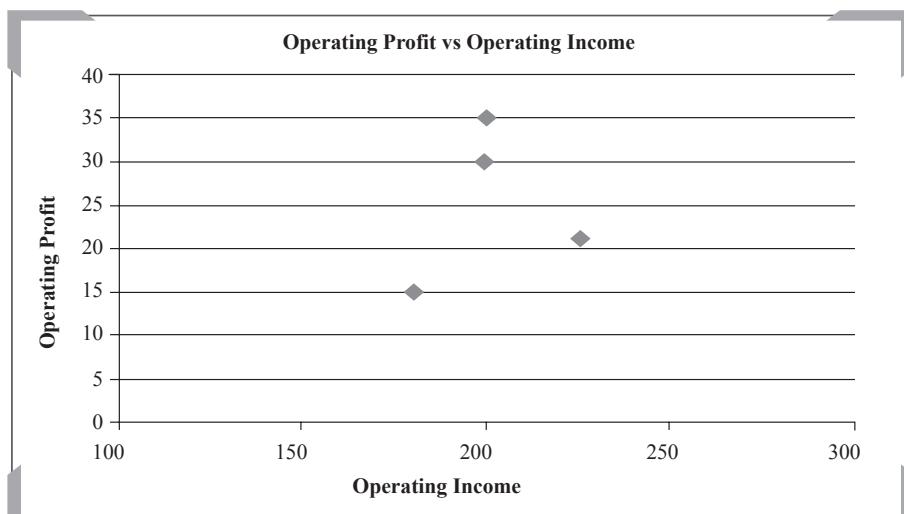
- Q 29. In which year during the period 1996-1999 was Chaidesh's export of tea, as a proportion of tea produced, the highest?
- (a) 1996      (b) 1997      (c) 1998      (d) 1999
- Q 30. In which of the following years was the population of Chaidesh the lowest?
- (a) 1995      (b) 1996      (c) 1997      (d) 1999
- Q 31. The area under tea cultivation continuously decreased in all four years from 1996 to 1999, by 10%, 7%, 4% and 1% respectively. In which year was tea productivity (production per unit of area) the highest?
- (a) 1999      (b) 1998      (c) 1997      (d) 1996

**Direction for questions 32 to 35:** Answer the following questions based on the chart given below.

The profitability of a company is defined as the ratio of its operating profit to its operating income, typically expressed in percentage. The following two charts show the operating income as well as the profitability of six companies in the Financial Years (FYs) 2001-02 and 2002-03.

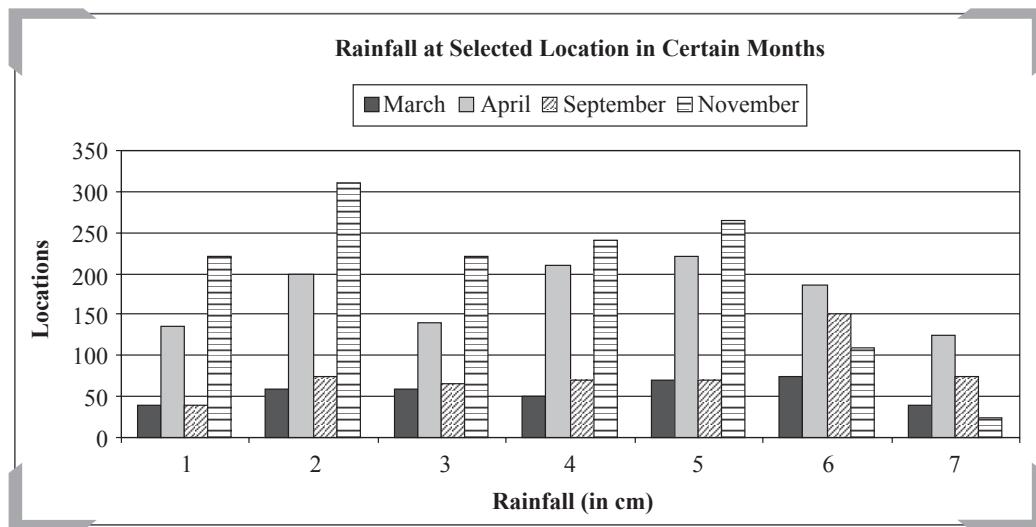


The operating profits of four of these companies are plotted against their respective operating income figures for the FY 2002-03, in the third chart given below.



- Q 32. What is the approximate average operating profit, in FY 2001-2002, of the two companies excluded from the third chart?  
 (a) -7.5 crores      (b) 3.5 crores      (c) 25 crores      (d) Cannot be determined
- Q 33. Which company recorded the highest operating profit in FY 2002-03?  
 (a) A      (b) C      (c) E      (d) F
- Q 34. Which of the following statements is not true?  
 (a) The company with the third lowest profitability in FY 2001-02 has the lowest operating income in FY 2002-03.  
 (b) The company with the highest operating income in the two financial years combined has the lowest operating profit in FY 2002-03.  
 (c) Companies with a higher operating income in FY 2001-02 than in FY 2002-03 have higher profitability in FY 2002-03 than in FY 2001-02.  
 (d) Companies with profitability between 10% and 20% in FY 2001-02 also have operating incomes between 150 crores and 200 crores in FY 2002-03.
- Q 35. The average operating profit in FY 2002-03, of companies with profitability exceeding 10% in FY 2002-03, is approximately  
 (a) 17.5 crores      (b) 25 crores      (c) 27.5 crores      (d) 32.5 crores

**Direction for questions 36 and 37:** Answer the following questions on the basis of the data presented in the figure below.



- Q 36. Which of the following statements is correct?  
 (a) November rainfall exceeds 100 cm in each location.  
 (b) September rainfall exceeds 50 cm in each location.  
 (c) March rainfall is lower than September rainfall in each location.  
 (d) None of the above
- Q 37. Locations 6 and 7 differ from all the rest because only in these two locations:  
 (a) April rainfall exceeds March rainfall.  
 (b) Peak rainfall occurs in April.  
 (c) November rainfall is lower than March rainfall.  
 (d) April rainfall is less than 20 cm.

**Direction for questions 38 to 40:** Answer the following questions on the basis of the information given below.

In a Decathlon, the events are 100 m, 400 m, 100 m hurdles, 1500 m, High jump, Pole-vaul, Long jump, Discus, Shot-put and Javelin. The performance in the first four of these events is consolidated into Score 1, the next three into Score 2, and the last three into Score 3. Each such consolidation is obtained by giving appropriate positive weights to individual events. The final score is simply the total of these three scores. The athletes with the highest, second highest and the third highest final scores receive the gold, silver and bronze medals, respectively. The table given below gives the scores and performance of nineteen top athletes in this event.

Name	Country	Final Score	Score-1	Score-2	Score-3	100 m	High Jump	Pole-value
Eduard Hamalainen	BLS	8802	491	5322	2989	10.74	2.1	4.8
Michael Smith	CAN	8855	174	5274	3407	11.23	2.0	4.9
Tomas Dvorak	CZE	8796	499	5169	3128	10.63	1.9	4.7
Uwe Frrimuth	DDR	8799	441	5491	3124	11.06	2.0	4.8
Torsten Voss	DHK	8880	521	5234	5868	10.69	2.1	5.1
Erki Nool	EST	8768	408	5553	2808	10.71	2.0	5.4
Christian Plaziat	FRG	8775	563	5430	2781	10.72	2.1	5.0
Jurgen Hingsen	FRG	8792	451	5223	3033	10.95	2.0	4.9
Siegfried Wentz	FRG	8856	470	5250	3137	1085	2.1	4.8
Guido Kratschmer	FGR	8861	575	8308	3064	10.58	2.0	4.6
Daisy Thompson	GBR		582		3003	10.55	2.1	4.6
Frank Busemann	GER	8905	568	5392	2945	10.60	2.0	4.8
Alexandr Apaichev	SOV	8803	492	5370	3115	10.92	2.0	4.8
Grigory Degtyarov	SOV	8823	339	5196	3114	11.05	2.1	4.9
Robert Zmelik	TCH	8832	494	5455	2883	10.78	2.1	5.1
Dave Johnson	USA	8811	666	5370	3114	10.78	2.1	5.0
Steve Fritz	USA	8887	427	5163	3119	10.75	2.0	5.0
Brice Jenner	USA	8846	483	5280	3200	10.94	2.0	4.8
Dan O'Brien	USA	8897	408	5331	3120	10.36	2.1	4.8

Q 38. The athletes from FRG and USA decided to run a  $4 \times 100$  m relay race for their respective countries with the country having three athletes borrowing the athlete from CZE. Assume that all the athletes ran their stretch of the relay race at the same speed as in Decathlon event. How much more time did the FRG relay team take as compared to the USA team?

- (a) 0.18      (b) 0.28      (c) 0.78      (d) None of these

Q 39. What is the least that Daley Thompson must get in Score 2 that ensures him a bronze medal?

- (a) 5309      (b) 5296      (c) 5271      (d) 5270

Q 40. At least how many competitors (excluding Daley Thompson) must Michael Smith have out-jumped in the long jump event?

- (a) 1      (b) 2      (c) 3      (d) 4

**Direction for questions 41 to 44: Answer the following questions on the basis of the information given below.**

The following is the Wholesale Price Index (WPI) of a select list of items with the base year of 1993-94. In other words, all the item prices are made 100 in that year (1993-94). Price in all other years for an item are measured with respect to its price in the base year. For instance, the price of cement went up by 1% in 1994-95 as compared to 1993-94. Similarly, the price of power went up by 3% in 1996-97 as compared to 1993-94.

	<b>1993-94</b>	<b>1994-95</b>	<b>1995-96</b>	<b>1996-97</b>	<b>1997-98</b>	<b>1998-99</b>	<b>1999-2000</b>	<b>2000-01</b>	<b>2001-02</b>	<b>2002-03</b>
All Items	100	102.0	102.5	104.00	103.00	105.00	106.00	108.00	107.00	106.00
Cement	100	101.0	100.5	103.00	102.50	103.50	103.10	103.80	103.70	104.00
Limestone	100	102.0	102.5	102.75	102.25	103.00	104.00	105.00	104.50	105.00
Power	100	101.5	102.5	103.00	103.50	104.00	106.00	107.00	107.50	108.00
Steel	100	101.5	101.0	103.50	104.00	104.25	105.00	105.50	106.00	105.50
Timber	100	100.5	101.5	102.00	102.50	102.00	103.00	103.50	104.00	104.50
Wages	100	101.5	103.0	103.50	104.500	104.00	104.25	104.75	104.90	105.30



**Direction for questions 45 to 47:** Answer the following questions on the basis of the information given below table.

	<b>1901</b>	<b>1911</b>	<b>1921</b>	<b>1931</b>	<b>1941</b>	<b>1951</b>	<b>1961</b>	<b>1971</b>	<b>1981</b>	<b>1991</b>	<b>2001</b>
AP	985	992	993	987	980	986	981	977	975	972	978
Assam	919	915	896	874	875	868	869	896	910	923	932
Bihar	1061	1051	1020	995	1002	1000	1005	957	948	907	921
Goa	1091	1108	1120	1088	1084	1128	1066	981	975	967	960
Gujarat	954	946	944	945	941	952	940	934	942	934	921
Haryana	867	835	844	844	869	871	868	867	870	865	861
HP	884	889	890	897	890	912	938	958	973	976	970
J&K	882	876	870	865	869	873	878	878	892	896	900
Karnataka	983	981	969	965	960	966	959	957	963	960	964
Kerala	1004	1008	1011	1022	1027	1028	1022	1016	1032	1036	1058
MP	972	967	949	947	946	945	932	920	921	912	920
Maharashtra	978	966	950	947	949	941	936	930	937	934	922
Orissa	1037	1056	1086	1067	1053	1022	1001	988	981	971	972

	1901	1911	1921	1931	1941	1951	1961	1971	1981	1991	2001
Punjab	832	780	799	815	836	844	854	865	879	882	874
Rajasthan	905	908	896	907	906	921	908	911	919	910	922
TN	1044	1042	1029	1027	1012	1007	992	978	977	974	986
UP	938	916	908	903	907	998	907	876	882	876	898
WB	945	925	905	890	852	865	878	891	911	917	934
<b>India</b>	<b>972</b>	<b>964</b>	<b>955</b>	<b>950</b>	<b>945</b>	<b>946</b>	<b>941</b>	<b>930</b>	<b>934</b>	<b>927</b>	<b>933</b>

Q 45. Each of the following statements pertains to the number of states with females outnumbering males in a given census year. Which of these statements is not correct?

- (a) This number never exceeded 5 in any census year.
- (b) This number registered its sharpest decline in the year 1971.
- (c) The number of consecutive censuses in which this number remained unchanged never exceeded.
- (d) Prior to the 1971 census, this number was never less than 4.

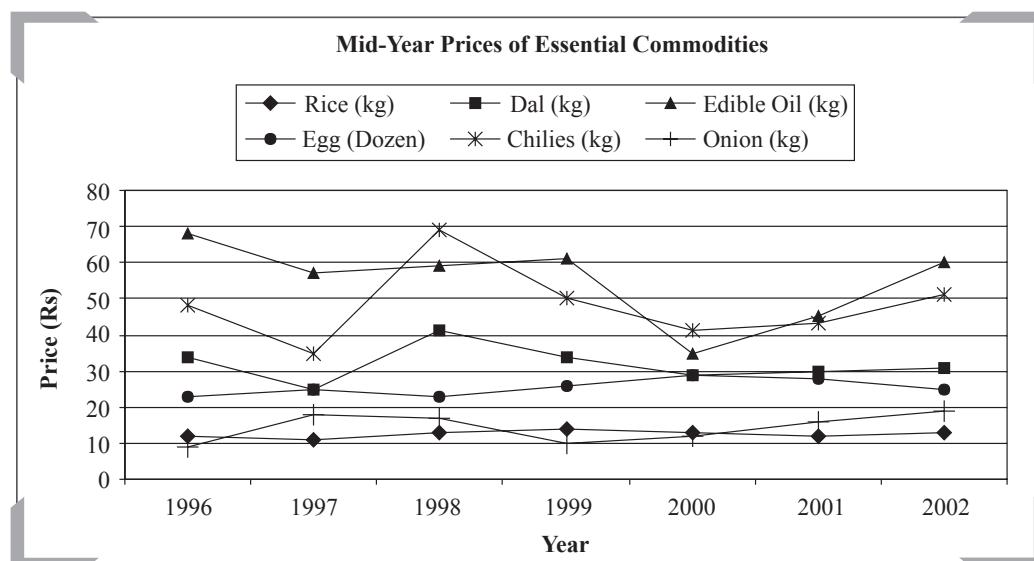
Q 46. The two states which achieved the largest increases in sex ratio over the period 1991-2001 are

- (a) Punjab and HP (b) HP and Kerala (c) Assam and J&K (d) Kerala and J&K

Q 47. Among the states which have a sex ratio exceeding 1000 in 1901, the sharpest decline over the period 1901-2001 was registered in the state of

- (a) Goa (b) TN (c) Bihar (d) Orissa

**Direction for questions 48 to 50:** Answer the following questions on the basis of the data presented in the figure below.



Q 48. During 1996-2002, the number of commodities that exhibited a net overall increase and a net overall decrease, respectively, were

- (a) 3 and 3 (b) 2 and 4 (c) 4 and 2 (d) 5 and 1

Q 49. The number of commodities that experienced a price decline for two or more consecutive years is

- (a) 2 (b) 3 (c) 4 (d) 5

Q 50. For which commodities did a price increase immediately follow a price decline only once in this period?

- (a) Rice, Edible oil, and Dal (b) Egg and Dal (c) Onion only (d) Egg and Onion

# ANSWERS



## ◀ SECTION 2—LOGICAL REASONING

Q. No.	Answer						
1	(d)	2	(c)	3	(c)	4	(a)
5	(c)	6	(a)	7	(b)	8	(c)
9	(b)	10	(b)	11	(c)	12	(d)
13	(c)	14	(d)	15	(c)	16	(d)
17	(a)	18	(b)	19	(b)	20	(c)
21	(b)	22	(d)	23	(a)	24	(d)
25	(b)	26	(a)	27	(d)	28	(a)
29	(b)	30	(a)	31	(a)	32	(a)
33	(c)	34	(d)	35	(d)	36	(c)
37	(c)	38	(a)	39	(b)	40	(d)
41	(c)	42	(b)	43	(a)	44	(d)
45	(c)	46	(b)	47	(c)	48	(c)
49	(d)	50	(d)				

## HINTS AND EXPLANATIONS

## ◀ SECTION 2—LOGICAL REASONING



- (d) Statement A tells us that Aakash and Biplab both score 50 runs but provide no information about the number of catches taken by Aakash.  
Statement B alone does not tell anything about the runs scored by Aakash and Chirag. Therefore nothing can be concluded from A alone or B alone.  
On combining both the statements, we get Aakash as the “man of the match.” Hence, option (d) is the answer.
- (c) Statement A: B C D A  
If A cannot score 1st or 2nd position and D also cannot score 1st, 2nd and 4th position, then D has to score 3rd position.  
Now at the 2nd position, neither can A come, nor B, nor D or C comes at 2nd position.  
Now at 1st position B will come and at the 4th position, A will come. Hence, A, alone is sufficient.  
Statement B: B C D A  
B has to come on 1st position, and A has to come on 4th position as none of B, C and D can come on 4th position.  
C will come at 2nd and D at the 3rd position.  
Therefore, both statements alone are sufficient to answer the question. Hence, option (c) is the answer.
- (c) Statement A: The following equation can be formed is  $600/(x - 5) - 600/x = 10$ . We can solve this to get the final answer.  
Statement B: Statement B does not provide sufficient data to solve the problem as actual members of the club are not stated.
- (a) According to the problem, we have:  
Let the ages of father, mother and son be  $F$ ,  $M$  and  $S$  respectively.  
 $(F + n) = 4(S + n)$  and  $(M + n) = 3(S + n)$   
Statement A: It gives that  $F - M = 10$ , and by subtracting the two equations given above we get,  
 $F + n - M - n = 4S - 3S + n = S + n$   
Gives us that  $S + n$  (age of son after  $n$  years) is 10 years.

Adding the two above given equations we get  $F + n + M + n = 7(S + n) = 70$ . Thus statement A gives us an answer.

Statement B:  $S + n = 2S$ , so,  $S = n$ . This statement does not give any conclusive answer. Hence, option (a) is the answer.

5. (c) 70% have VCD Players 30% do not have VCD Players.  
 75% have microwave ovens 25% do not have microwave ovens.  
 80% have ACs 20% do not have ACs.  
 85% have washing machines 15% do not have washing machines.

This information confirms that  $(30 + 25 + 15 + 20) 90\%$  of employees do not have at least 1 of the gadgets. So minimum percentage of employees who has all four gadgets =  $100 - 90 = 10\%$ . Hence, option (c) is the answer.

#### **Solution to Q6 to 9:**

On examining the information given to us, we get the following table:

<i>Husband</i>	<i>Wife</i>
Anil	Anita
Raj	Joya
Raman	Shanthi
Sunil	Sridevi

Following is their order of arrival:

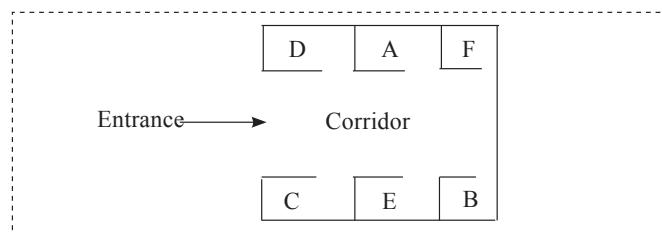
Anil and Anita; Raj and Joya, followed by Raman and Shanthi and then Sunil and Sridevi. Therefore we get the answers to the questions.

#### **Solution to Q11 to 14:**

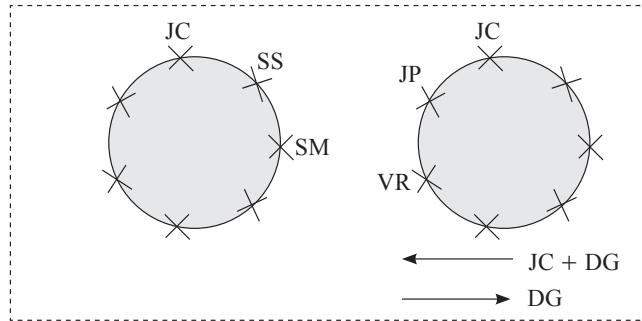
11. (c) D, E (source from where C gets its blank answers) and I (source where C gets Q 27 wrong) must have prepared their answers before C could mark the answers. E can prepare its answer key only by using the data from (a). So, four people must have made their answer keys before C could make it. Hence, option (c) is the answer.
12. (d) Only G got Q 25 wrong (as none of the other 9 people got the same question wrong), and the same is true for H. So, G and H were the sources to none of them. Hence, option (d) is the answer.
13. (c) It can be seen that C got Q 56 wrong (27 wrong obtained from I), E got Q 90 wrong (46 obtained from A), H got Q 92 wrong (46 obtained from A). Hence, the only answer can be (c). Hence, option (c) is the answer.
14. (d) Both E and H both got Q 46 wrong (90 and 92 were compulsorily wrong). So, both of them should have the same sources. Now A, D and G had just one wrong question each and had no blank answers. So, they should also have the same source. Hence, option (d) is the answer.

#### **Solution to Q15 to 18:**

After analysing the given information, we can draw the following diagram:



So, answer to all these questions can be easily obtained.

**Solution to Q19 to 22:**

19. (b) The first one to enter the lounge was JC followed by SS and SM. Thereafter SM and SS left the lounge and JP, VR entered. Now, people to leave the lounge together were JC and DG and DG came back and met PK. Therefore, DG was the first to enter between JP or DG. Hence, option (b) is the answer.
20. (c) DG was sitting when JP entered. Hence, option (c) is the answer.
21. (b) VR met DG, JC and JP and the last two faculties to leave the lounge are JP and DG. Hence, option (b) is the answer.

**Solution to Q23 and 24:**

After examining the information given to us, we can assign days for the parties in the following manner:

Congress	Thursday
BJP	Friday
SP	Thursday
BSP	Friday
CPM	Friday

**Solution to Q29 to 35:**

29. (b) In the year 1997 there is highest export of tea as a proportion of total production (approx. 35%). Hence, option (b) is the answer.
30. (a) To find the population we have to calculate  $(\text{Availability of Tea}) \div (\text{Per capita Availability of Tea})$ .  
On finding the values for the given years, value for the year 1995 is seen to be the lowest. Hence, option (a) is the answer.
31. (a) In the year 1999 there is highest tea productivity because in the year 1999, production is the maximum and area under cultivation is the minimum. Hence, option (a) is the answer.
32. (a) Companies B and D are excluded from the third chart because they had a negative profitability.  
Thus the answer has to be option (a).
33. (c) Refer 3rd chart—option (c) is the answer.
34. (d) Options (a), (b) and (c) are correct. Hence, option (d) is the answer.
35. (d) Companies with profitability exceeding 10% in FY 2002-03 are C and E. Their operating profits are 30 and 35 crores respectively.  
Their average is 32.5. Hence, option (d) is the answer.

**Solution to Q38 to 40:**

38. (a) Total time taken by FRG team =  $(10.95 + 10.85 + 10.58 + 10.63) = 43.01$   
 Total time taken by USA team =  $(10.78 + 10.75 + 10.94 + 10.36) = 42.83$   
 Difference = 0.18. Hence, option (a) is the answer.
39. (b) The score of person who obtained 1st rank is 8905 and that of the 2nd rank holder is 8897. Therefore he must get a score of greater than 8880 but less than 8897. His present score is  $582 + 3003 = 3585$ . Now if he gets a score of 5296, his total score would become  $3585 + 5296 = 8881$ , and that would entitle him for a bronze medal. Hence, option (b) is the answer.
40. (d) There were four competitors namely Torsten Voss, Jurgen Hingsen, Grigory Degtyarov and Steve Fritz in which Michael Smith has performed better than his competitors in Long jump. Hence, option (d) is the answer.

**Solution to Q41 to 44:**

Cement Cost	WPI	Weights	Cost
Limestone	105	0.2	21
Power	108	0.25	27
Wages	105.3	0.15	15.795

Total cost = Rs 63.795

Thus, operating profit per bag of cement =  $\{(104 - 63.795) \times 100\} \div 104 = 38.5\%$ . Hence, option (c) is the answer.

43. (a) It can be observed from the table that "Power" experiences continuous price rise during the ten-year period. Hence, option (a) is the answer.
44. (d) It can be observed from the table that "Timber" and "Wages" experience only one decline in price during the ten-year period. Hence, option (d) is the answer.

**Solution to Q48 to 50:**

48. (c) Onion, Rice, Egg and Chillies exhibited net overall increase and the ones that exhibited net overall decrease were Dal and Edible oil. Hence, option (c) is the answer.
49. (d) Rice, Egg, Onion, Dal and Chilles experienced a price decline for two or more consecutive years. Hence, option (d) is the answer.
50. (d) Onion and Eggs satisfy the given condition. Hence, option (d) is the answer.

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# CAT 2004

## LEARNING Objectives

1. Read the instructions carefully before attempting the questions.
2. Do your rough work on Test Booklet and not on the Answer Sheet.
3. Total Questions = 88
4. There is negative marking.

### ➤ SECTION 1—VERBAL ABILITY

Number of questions = 50

Note: Questions 1 to 10 carry half a mark each. All the other questions carry one mark each.

**Direction for questions 1 to 10:** *Fill up the blanks, numbered [1], [2] ... up to [10], in the two passages below with the most appropriate word from the options given for each blank.*

At that time the White House was as serene as a resort hotel out of season. The corridors were [1]. In the various offices, [2] gray men in waistcoats talked to one another in lowpitched voices. The only color, or choler, curiously enough, was provided by President Eisenhower himself. Apparently, his [3] was easily set off; he scowled when he [4] the corridors.

- |                   |                |
|-------------------|----------------|
| Q 1. (a) striking | (b) hollow     |
| (c) empty         | (d) white      |
| Q 2. (a) quiet    | (b) faded      |
| (c) loud          | (d) stentorian |

- |                   |               |
|-------------------|---------------|
| Q 3. (a) laughter | (b) curiosity |
| (c) humour        | (d) temper    |
| Q 4. (a) paced    | (b) strolled  |
| (c) stormed       | (d) prowled   |

“Between the year 1946 and the year 1955, I did not file any income tax returns.” With that [5] statement, Ramesh embarked on an account of his encounter with the Income Tax Department. “I originally owed Rs 20,000 in unpaid taxes. With [6] and [7], Rs 20,000 became Rs 60,000. The Income Tax Department then went into action, and I learned first hand just how much power the Tax Department wields. Royalties and trust funds can be [8]; automobiles may be [9], and auctioned off. Nothing belongs to the [10] until the case is settled.”

- |                    |                 |
|--------------------|-----------------|
| Q 5. (a) devious   | (b) blunt       |
| (c) tactful        | (d) pretentious |
| Q 6. (a) interest  | (b) taxes       |
| (c) principal      | (d) returns     |
| Q 7. (a) sanctions | (b) refunds     |
| (c) fees           | (d) fines       |
| Q 8. (a) closed    | (b) detached    |
| (c) attached       | (d) impounded   |

- Q 9. (a) smashed      (b) seized  
 (c) dismantled      (d) frozen

- Q 10. (a) purchaser      (b) victim  
 (c) investor      (d) offender

**Direction for questions 11 to 13:** Identify the incorrect sentence.

- Q 11. A. Last Sunday, Archana had nothing to do.  
 B. After waking up, she lay on the bed thinking of what to do.  
 C. At 11 o'clock she took shower and got ready.  
 D. She spent most of the day shopping.  
 (a) B and C  
 (b) C  
 (c) A and B  
 (d) B, C, and D
- Q 12. A. It was a tough situation and Manasi was taking pains to make it better.  
 B. Slowly her efforts gave fruit and things started improving.  
 C. Everyone complemented her for her good work.  
 D. She was very happy and thanked everyone for their help.  
 (a) A                        (b) D  
 (c) B and C                (d) A and C

- Q 13. A. Harish told Raj to plead guilty.  
 B. Raj pleaded guilty of stealing money from the shop.  
 C. The court found Raj guilty of all the crimes he was charged with.  
 D. He was sentenced for three years in jail.  
 (a) A and C                (b) B and D  
 (c) A, C, and D            (d) B, C, and D

**Direction for questions 14 to 16:** Each statement has a part missing. Choose the best option from the four options given below the statement to make up the missing part.

- Q 14. Archaeologists believe that the pieces of red-ware pottery excavated recently near Bhavnagar and \_\_\_\_\_ shed light on a hitherto dark 600-year period in the Harappan history of Gujarat.  
 (a) Estimated with a reasonable certainty as being about 3400 years old,  
 (b) Are estimated reasonably certain to be about 3400 years old,  
 (c) Estimated at about 3400 years old with reasonable certainty,  
 (d) Estimated with reasonable certainty to be about 3400 years old,

- Q 15. Many people suggest \_\_\_\_\_ and still others would like to convince people not to buy pirated cassettes.  
 (a) To bring down audiocassette prices to reduce the incidence of music piracy, others advocate strong legal action against the offenders,

- (b) Bringing down audiocassette prices to reduce the incidents of music piracy, others are advocating strong legal action against offenders,  
 (c) Bringing down audiocassette prices to reduce the incidence of music piracy, others advocate strong legal action against offenders,  
 (d) Audiocassette prices to be brought down to reduce incidence of music piracy, others advocate that strong legal action must be taken against offenders,

- Q 16. The ancient Egyptians believed \_\_\_\_\_ so that when these objects were magically reanimated through the correct rituals, they would be able to function effectively.  
 (a) That it was essential that things they portrayed must have every relevant feature shown as clearly as possible,  
 (b) It was essential for things they portray to have had every relevant feature shown as clearly as possible,  
 (c) It was essential that the things they portrayed had every relevant feature shown as clearly as possible,  
 (d) That when they portrayed things, it should have every relevant feature shown as clearly as possible,

**Direction for questions 17 to 19:** In each question, the word at the top of the table is used in four different ways, numbered 1 to 4. Choose the option in which the usage of the word is incorrect or inappropriate.

- Q 17. FALLOUT  
 (a) Nagasaki suffered from the fallout of nuclear radiation.  
 (b) People believed that the political fallout of the scandal would be insignificant.  
 (c) Who can predict the environmental fallout of the WTO agreements?  
 (d) The headmaster could not understand the fallout of several of his good students at the Public examination.

- Q 18. PASSING  
 (a) She did not have passing marks in Mathematics.  
 (b) The mad woman was cursing everybody passing her on the road.  
 (c) At the birthday party all the children enjoyed a game of passing the parcel.  
 (d) A passing taxi was stopped to rush the accident victim to the hospital.

- Q 19. BOLT  
 (a) The shopkeeper showed us a bolt of fine silk.  
 (b) As he could not move, he made a bolt for the gate.  
 (c) Could you please bolt the door?  
 (d) The thief was arrested before he could bolt from the scene of the crime.

**Direction for questions 20 to 22:** The sentences given in each question, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of sentences from among the given choices to construct a coherent paragraph.

- Q 20. A. In the west, Allied Forces had fought their way through southern Italy as far as Rome.  
 B. In June 1944, Germany's military position in World War II appeared hopeless.  
 C. In Britain, the task of amassing the men and materials for the liberation of Northern Europe had been completed.  
 D. The Red Army was poised to drive the Nazis back through Poland.  
 E. The situation on the eastern front was catastrophic.  
 (a) EDACB      (b) BEDAC  
 (c) BDECA      (d) CEDAB
- Q 21. A. He felt justified in bypassing Congress altogether on a variety of moves.  
 B. At times he was fighting the entire Congress.  
 C. Bush felt he had a mission to restore power to the presidency.  
 D. Bush was not fighting just the democrats.  
 E. Representative democracy is a messy business, and a CEO of the White House does not like a legislature of second guessers and time wasters.  
 (a) CAEDB      (b) DBAEC  
 (c) CEADB      (d) ECDBA
- Q 22. A. The two neighbours never fought each other.  
 B. Fights involving three male fiddler crabs have been recorded, but the status of the participants was unknown.  
 C. They pushed or grappled only with the intruder.  
 D. We recorded 17 cases in which a resident that was fighting an intruder was joined by an immediate neighbour, an ally.  
 E. We therefore, tracked 268 intruder males until we saw them fighting a resident male.  
 (a) BEDAC      (b) DEBAC  
 (c) BDCAE      (d) BCEDA

**Direction for questions 23 and 24:** Four alternative summaries are given below each text. Choose the option that best captures the essence of the text.

- Q 23. The human race is spread all over the world, from the polar regions to the tropics. The people of whom it is made up eat different kinds of food, partly according to the climate in which they live, and partly according to the kind of food which their country produces. In hot climates, meat and fat are not much needed; but in the Arctic regions they seem to be very necessary for keeping up the heat of the body. Thus, in India, people live chiefly on different kinds of grains, eggs, milk, or sometimes fish and meat. In Europe, people eat more meat and less grain. In the Arctic regions, where no

grains and fruits are produced, the Eskimo and other races live almost entirely on meat and fish.

- (a) Food eaten by people in different regions of the world depends on the climate and produce of the region, and varies from meat and fish in the Arctic to predominantly grains in the tropics.  
 (b) Hot climates require people to eat grains while cold regions require people to eat meat and fish.  
 (c) In hot countries, people eat mainly grains while in the Arctic, they eat meat and fish because they cannot grow grains.  
 (d) While people in Arctic regions like meat and fish and those in hot regions like India prefer mainly grains, they have to change what they eat depending on the local climate and the local produce.
- Q 24. You seemed at first to take no notice of your school-fellows, or rather to set yourself against them because they were strangers to you. They knew as little of you as you did of them; this would have been the reason for their keeping aloof from you as well, which you would have felt as a hardship. Learn never to conceive a prejudice against others because you know nothing of them. It is bad reasoning, and makes enemies of half the world. Do not think ill of them till they behave ill to you; and then strive to avoid the faults which you see in them. This will disarm their hostility sooner than pique or resentment or complaint.  
 (a) The discomfort you felt with your school fellows was because both sides knew little of each other. You should not complain unless you find others prejudiced against you and have attempted to carefully analyze the faults you have observed in them.  
 (b) The discomfort you felt with your school fellows was because both sides knew little of each other. Avoid prejudice and negative thoughts till you encounter bad behaviour from others, and then win them over by shunning the faults you have observed.  
 (c) You encountered hardship amongst your school fellows because you did not know them well. You should learn to not make enemies because of your prejudices irrespective of their behaviour towards you.  
 (d) You encountered hardship amongst your school fellows because you did not know them well. You should learn to not make enemies because of your prejudices unless they behave badly with you.

**Direction for questions 25 to 44:** Each of the five passages given below is followed by a set of questions. Choose the best answer to each question.

#### PASSAGE I

Recently I spent several hours sitting under a tree in my garden with the social anthropologist William Ury, a

Harvard University professor who specializes in the art of negotiation and wrote the bestselling book, *Getting to Yes*. He captivated me with his theory that tribalism protects people from their fear of rapid change. He explained that the pillars of tribalism that humans rely on for security would always counter any significant cultural or social change. In this way, he said, change is never allowed to happen too fast. Technology, for example, is a pillar of society. Ury believes that every time technology moves in a new or radical direction, another pillar such as religion or nationalism will grow stronger—in effect, the traditional and familiar will assume greater importance to compensate for the new and untested. In this manner, human tribes avoid rapid change that leaves people insecure and frightened.

But we have all heard that nothing is as permanent as change. Nothing is guaranteed. Pithy expressions, to be sure, but no more than clichés. As Ury says, people do not live that way from day-to-day. On the contrary, they actively seek certainty and stability. They want to know they will be safe.

Even so, we scare ourselves constantly with the idea of change. An IBM CEO once said: ‘We only re-structure for a good reason, and if we have not re-structured in a while, that’s a good reason.’ We are scared that competitors, technology and the consumer will put us out of business—so we have to change all the time just to stay alive. But if we asked our fathers and grandfathers, would they have said that they lived in a period of little change? Structure may not have changed much. It may just be the speed with which we do things.

Change is over-rated, anyway. Consider the automobile. It is an especially valuable example, because the auto industry has spent tens of billions of dollars on research and product development in the last 100 years. Henry Ford’s first car had a metal chassis with an internal combustion, gasoline-powered engine, four wheels with rubber tyres, a foot operated clutch assembly and brake system, a steering wheel, and four seats, and it could safely do 18 miles per hour. A hundred years and tens of thousands of research hours later, we drive cars with a metal chassis with an internal combustion, gasoline-powered engine, four wheels with rubber tyres, a foot operated clutch assembly and brake system, a steering wheel, four seats—and the average speed in London in 2001 was 17.5 miles per hour!

That’s not a hell of a lot of return for the money. Ford evidently does not have much to teach us about change. The fact that they’re still manufacturing cars is not proof that Ford Motor Co. is a sound organization, just proof that it takes very large companies to make cars in great quantities—making for an almost impregnable entry barrier.

Fifty years after the development of the jet engine, planes are also little changed. They’ve grown bigger, wider and can carry more people. But those are incremental, largely cosmetic changes.

Taken together, this lack of real change has come to mean that in travel—whether driving or flying—time and technology have not combined to make things much better. The safety and design have of course accompanied the times and the new volume of cars and flights, but nothing of any significance has changed in the basic assumptions of the final product.

At the same time, moving around in cars or aeroplanes becomes less and less efficient all the time. Not only has there been no great change, but also both forms of transport have deteriorated as more people clamour to use them. The same is true for telephones, which took over hundred years to become mobile, or photographic film, which also required an entire century to change.

The only explanation for this is anthropological. Once established in calcified organizations, humans do two things: sabotage changes that might render people dispensable, and ensure industry-wide emulation. In the 1960s, German auto companies developed plans to scrap the entire combustion engine for an electrical design. (The same existed in the 1970s in Japan, and in the 1980s in France.) So for 40 years we might have been free of the wasteful and ludicrous dependence on fossil fuels. Why did not it go anywhere? Because auto executives understood pistons and carburetors, and would be loath to cannibalize their expertise, along with most of their factories.

**Q 25.** Which of the following best describes one of the main ideas discussed in the passage?

- Rapid change is usually welcomed in society.
- Industry is not as innovative as it is made out to be.
- We should have less change than what we have now.
- Competition spurs companies into radical innovation.

**Q 26.** According to the passage, which of the following statements is true?

- Executives of automobile companies are inefficient and ludicrous.
- The speed at which an automobile is driven in a city has not changed much in a century.
- Anthropological factors have fostered innovation in automobiles by promoting use of new technologies.
- Further innovation in jet engines has been more than incremental.

**Q 27.** Which of the following views does the author fully support in the passage?

- Nothing is as permanent as change.
- Change is always rapid.
- More money spent on innovation leads to more rapid change.
- Over decades, structural change has been incremental.

**Q 28.** According to the passage, the reason why we continued to be dependent on fossil fuels is that:

- Auto executives did not wish to change.
- No alternative fuels were discovered.
- Change in technology was not easily possible.
- German, Japanese and French companies could not come up with new technologies.

## PASSAGE II

The painter is now free to paint anything he chooses. There are scarcely any forbidden subjects, and today everybody is prepared to admit that a painting of some fruit can be as

important as a painting of a hero dying. The Impressionists did as much as anybody to win this previously unheard-of freedom for the artist. Yet, by the next generation, painters began to abandon the subject altogether, and began to paint abstract pictures. Today the majority of pictures painted are abstract.

Is there a connection between these two developments? Has art gone abstract because the artist is embarrassed by his freedom? Is it that, because he is free to paint anything, he does not know what to paint? Apologists for abstract art often talk of it as the art of maximum freedom. But could this be the freedom of the desert island? It would take too long to answer these questions properly. I believe there is a connection. Many things have encouraged the development of abstract art. Among them has been the artists' wish to avoid the difficulties of finding subjects when all subjects are equally possible.

I raise the matter now because I want to draw attention to the fact that the painter's choice of a subject is a far more complicated question than it would at first seem. A subject does not start with what is put in front of the easel or with something which the painter happens to remember. A subject starts with the painter deciding he would like to paint such-and-such because for some reason or other he finds it meaningful. A subject begins when the artist selects something for special mention. (What makes it special or meaningful may seem to the artist to be purely visual—its colours or its form.) When the subject has been selected, the function of the painting itself is to communicate and justify the significance of that selection.

It is often said today that subject matter is unimportant. But this is only a reaction against the excessively literary and moralistic interpretation of subject matter in the nineteenth century. In truth the subject is literally the beginning and end of a painting. The painting begins with a selection (I will paint this and not everything else in the world); it is finished when that selection is justified (now you can see all that I saw and felt in this and how it is more than merely itself).

Thus, for a painting to succeed it is essential that the painter and his public agree about what is significant. The subject may have a personal meaning for the painter or individual spectator; but there must also be the possibility of their agreement on its general meaning. It is at this point that the culture of the society and period in question precedes the artist and his art. Renaissance art would have meant nothing to the Aztecs—and vice versa. If, to some extent, a few intellectuals can appreciate them both today it is because their culture is an historical one: its inspiration is history and therefore, it can include within itself, in principle if not in every particular, all known developments to date.

When a culture is secure and certain of its values, it presents its artists with subjects. The general agreement about what is significant is so well established that the significance of a particular subject accrues and becomes traditional. This is true, for instance, of reeds and water in China, of the nude body in Renaissance, of the animal in Africa. Furthermore, in such cultures the artist is unlikely to be a free agent: he will be employed *for the sake of particular subjects*, and the problem, as we have just described it, will not occur to him.

When a culture is in a state of disintegration or transition the freedom of the artist increases—but the question of subject matter becomes problematic for him: he, himself, has to choose for society. This was at the basis of all the increasing crises in European art during the nineteenth century. It is too often forgotten how many of the art scandals of that time were provoked by the choice of subject (Gericault, Courbet, Daumier, Degas, Lautrec, Van Gogh, etc.).

By the end of the nineteenth century there were, roughly speaking, two ways in which the painter could meet this challenge of deciding what to paint and so choosing for society. Either he identified himself with the people and so allowed their lives to dictate his subjects to him; or he had to find his subjects within himself as painter. By *people*, I mean everybody except the bourgeoisie. Many painters did of course work for the bourgeoisie according to their copy-book of approved subjects, but all of them, filling the Salon and the Royal Academy year after year, are now forgotten, buried under the hypocrisy of those they served so sincerely.

Q 29. In the sentence, "I believe there is a connection" (second paragraph), what two developments is the author referring to?

- (a) Painters using a dying hero and using a fruit as a subject of painting.
- (b) Growing success of painters and an increase in abstract forms.
- (c) Artists gaining freedom to choose subjects and abandoning subjects altogether.
- (d) Rise of Impressionists and an increase in abstract forms.

Q 30. When a culture is insecure, the painter chooses his subject on the basis of:

- (a) The prevalent style in the society of his time.
- (b) Its meaningfulness to the painter.
- (c) What is put in front of the easel.
- (d) Past experience and memory of the painter.

Q 31. Which of the following views is taken by the author?

- (a) The more insecure a culture, the greater the freedom of the artist.
- (b) The more secure a culture, the greater the freedom of the artist.
- (c) The more secure a culture, more difficult the choice of subject.
- (d) The more insecure a culture, the less significant the choice of the subject.

Q 32. Which of the following is NOT necessarily among the attributes needed for a painter to succeed:

- (a) The painter and his public agree on what is significant.
- (b) The painting is able to communicate and justify the significance of its subject selection.
- (c) The subject has a personal meaning for the painter.
- (d) The painting of subjects is inspired by historical developments.

- Q 33. In the context of the passage, which of the following statements would NOT be true?
- Painters decided subjects based on what they remembered from their own lives.
  - Painters of reeds and water in China faced no serious problem of choosing a subject.
  - The choice of subject was a source of scandals in nineteenth century European art.
  - Agreement on the general meaning of a painting is influenced by culture and historical context.

### PASSAGE III

Throughout human history the leading causes of death have been infection and trauma. Modern medicine has scored significant victories against both, and the major causes of ill health and death are now the chronic degenerative diseases, such as coronary artery disease, arthritis, osteoporosis, Alzheimer's, macular degeneration, cataract and cancer. These have a long latency period before symptoms appear and a diagnosis is made. It follows that the majority of apparently healthy people are pre-ill.

But are these conditions inevitably degenerative? A truly preventive medicine that focused on the pre-ill, analysing the metabolic errors which lead to clinical illness, might be able to correct them before the first symptom. Genetic risk factors are known for all the chronic degenerative diseases, and are important to the individuals who possess them. At the population level, however, migration studies confirm that these illnesses are linked for the most part to lifestyle factors—exercise, smoking and nutrition. Nutrition is the easiest of these to change, and the most versatile tool for affecting the metabolic changes needed to tilt the balance away from disease.

Many national surveys reveal that malnutrition is common in developed countries. This is not the calorie and/or micronutrient deficiency associated with developing nations (Type A malnutrition); but multiple micronutrient depletion, usually combined with calorific balance or excess (Type B malnutrition). The incidence and severity of Type B malnutrition will be shown to be worse if newer micronutrient groups such as the essential fatty acids, xanthophylls and flavonoids are included in the surveys. Commonly ingested levels of these micronutrients seem to be far too low in many developed countries.

There is now considerable evidence that Type B malnutrition is a major cause of chronic degenerative diseases. If this is the case, then it is logical to treat such diseases not with drugs but with multiple micronutrient repletion, or ‘pharmaco-nutrition’. This can take the form of pills and capsules—‘nutraceuticals’, or food formats known as ‘functional foods’. This approach has been neglected hitherto because it is relatively unprofitable for drug companies—the products are hard to patent—and it is a strategy which does not sit easily with modern medical interventionism. Over the last 100 years, the drug industry has invested huge sums in developing a range of subtle and powerful drugs to treat the many diseases we are subject to. Medical training is couched in pharmaceutical terms and this approach has provided us with an exceptional range of

therapeutic tools in the treatment of disease and in acute medical emergencies. However, the pharmaceutical model has also created an unhealthy dependency culture, in which relatively few of us accept responsibility for maintaining our own health. Instead, we have handed over this responsibility to health professionals who know very little about health maintenance, or disease prevention.

One problem for supporters of this argument is lack of the right kind of hard evidence. We have a wealth of epidemiological data linking dietary factors to health profiles/disease risks, and a great deal of information on mechanism: how food factors interact with our biochemistry. But almost all intervention studies with micronutrients, with the notable exception of the omega 3 fatty acids, have so far produced conflicting or negative results. In other words, our science appears to have no predictive value. Does this invalidate the science? Or are we simply asking the wrong questions?

Based on pharmaceutical thinking, most intervention studies have attempted to measure the impact of a single micronutrient on the incidence of disease. The classical approach says that if you give a compound formula to test subjects and obtain positive results, you cannot know which ingredient is exerting the benefit, so you must test each ingredient individually. But in the field of nutrition, this does not work. Each intervention on its own will hardly make enough difference to be measured. The best therapeutic response must therefore, combine micronutrients to normalize our internal physiology. So do we need to analyse each individual's nutritional status and then tailor a formula specifically for him or her? While we do not have the resources to analyse millions of individual cases, there is no need to do so. The vast majority of people are consuming suboptimal amounts of most micronutrients, and most of the micronutrients concerned are very safe. Accordingly, a comprehensive and universal program of micronutrient support is probably the most cost-effective and safest way of improving the general health of the nation.

Q 34. Why are a large number of apparently healthy people deemed pre-ill?

- They may have chronic degenerative diseases.
- They do not know their own genetic risk factors which predispose them to diseases.
- They suffer from Type-B malnutrition.
- There is a lengthy latency period associated with chronically degenerative diseases.

Q 35. Type-B malnutrition is a serious concern in developed countries because:

- Developing countries mainly suffer from Type-A malnutrition.
- It is a major contributor to illness and death.
- Pharmaceutical companies are not producing drugs to treat this-condition.
- National surveys on malnutrition do not include newer micronutrient groups.

Q 36. Tailoring micronutrient-based treatment plans to suit individual deficiency profiles is not necessary because:

- It very likely to give inconsistent or negative results.

- (b) It is a classic pharmaceutical approach not suited to micronutrients.
- (c) Most people are consuming suboptimal amounts of safe-to-consume micronutrients.
- (d) It is not cost effective to do so.
- Q 37. The author recommends micronutrient-repletion for large-scale treatment of chronic degenerative diseases because:
- (a) It is relatively easy to manage.
- (b) Micronutrient deficiency is the cause of these diseases.
- (c) It can overcome genetic risk factors.
- (d) It can compensate for other lifestyle factors.

#### PASSAGE IV

Fifty feet away three male lions lay by the road. They did not appear to have a hair on their heads. Noting the color of their noses (leonine noses darken as they age, from pink to black), Craig estimated that they were six years old—young adults. “This is wonderful!” he said, after staring at them for several moments. “This is what we came to see. They really are maneless.” Craig, a professor at the University of Minnesota, is arguably the leading expert on the majestic Serengeti lion, whose head is mantled in long, thick hair. He and Peyton West, a doctoral student who has been working with him in Tanzania, had never seen the Tsavo lions that live some 200 miles east of, the Serengeti. The scientists had partly suspected that the maneless males were adolescents mistaken for adults by amateur observers. Now they knew better.

The Tsavo research expedition was mostly Peyton’s show. She had spent several years in Tanzania, compiling the data she needed to answer a question that ought to have been answered long ago: Why do lions have manes? It is the only cat, wild or domestic, that displays such ornamentation. In Tsavo, she was attacking the riddle from the opposite angle. Why do its lions not have manes? (Some “maneless” lions in Tsavo East do have partial manes, but they rarely attain the regal glory of the Serengeti lions.) Does environmental adaptation account for the trait? Are the lions of Tsavo, as some people believe, a distinct subspecies of their Serengeti cousins?

The Serengeti lions have been under continuous observation for more than 35 years, beginning with George Schaller’s pioneering work in the 1960s. But the lions in Tsavo, Kenya’s oldest and largest protected ecosystem, have hardly been studied. Consequently, legends have grown up around them. Not only do they look different, according to the myths, they *behave* differently, displaying greater cunning and aggressiveness. “Remember too,” Kenya: *The Rough Guide* warns, “Tsavo’s lions have a reputation of ferocity.” Their fearsome image became well-known in 1898, when two males stalled construction of what is now Kenya Railways by allegedly killing and eating 135 Indian and African labourers. A British Army officer in charge of building a railroad bridge over the Tsavo River, Lt Col J. H. Patterson, spent nine months pursuing the pair before he brought them to bay and killed them.

Stuffed and mounted, they now glare at visitors to the Field Museum in Chicago.

Patterson’s account of the leonine reign of terror, *The Man-Eaters of Tsavo*, was an international best seller when published in 1907. Still in print, the book has made Tsavo’s lions notorious. That annoys some scientists. “People do not want to give up on mythology,” Dennis King told me one day. The zoologist has been working in Tsavo off and on for four years. “I am so sick of this man-eater business. Patterson made a helluva lot of money off that story, but Tsavo’s lions are no more likely to turn man-eater than lions from elsewhere.”

But tales of their savagery and wiliness do not all come from sensationalist authors looking to make a buck. Tsavo lions are generally larger than lions elsewhere, enabling them to take down the predominant prey animal in Tsavo, the Cape buffalo, one of the strongest, most aggressive animals of Earth. The buffalo do not give up easily: They often kill or severely injure an attacking lion, and a wounded lion might be more likely to turn to cattle and humans for food.

And other prey is less abundant in Tsavo than in other traditional lion haunts. A hungry lion is more likely to attack humans. Safari guides and Kenya Wildlife Service rangers tell of lions attacking Land Rovers, raiding camps, stalking tourists. Tsavo is a tough neighbourhood, they say, and it breeds tougher lions.

But are they really tougher? And if so, is there any connection between their manelessness and their ferocity? An intriguing hypothesis was advanced two years ago by Gnoske and Peterhans: Tsavo lions may be similar to the unmaned cave lions of the Pleistocene. The Serengeti variety is among the most evolved of the species—the latest model, so to speak—while certain morphological differences in Tsavo lions (bigger bodies, smaller skulls, and maybe even lack of a mane) suggest that they are closer to the primitive ancestor of all lions. Craig and Peyton had serious doubts about this idea, but admitted that Tsavo lions pose a mystery to science.

Q 38. The book *Man-Eaters of Tsavo* annoys some scientists because

- (a) It revealed that Tsavo lions are ferocious.
- (b) Patterson made a helluva lot of money from the book by sensationalism.
- (c) It perpetuated the bad name Tsavo lions had.
- (d) It narrated how two male Tsavo lions were killed.

Q 39. The sentence which concludes the first paragraph. “Now they knew better”, implies that:

- (a) The two scientists were struck by wonder on seeing maneless lions for the first time.
- (b) Though Craig was an expert on the Serengeti lion, now he also knew about the Tsavo lions.
- (c) Earlier, Craig and West thought that amateur observers had been mistaken.
- (d) Craig was now able to confirm that darkening of the noses as lions aged applied to Tsavo lions as well.

Q 40. Which of the following, if true, would weaken the hypothesis advanced by Gnoske and Peterhans most?

- (a) Craig and Peyton develop even more serious doubts about the idea that Tsavo lions are primitive.

- (b) The maneless Tsavo East lions are shown to be closer to the cave lions.
- (c) Pleistocene cave lions are shown to be far less violent than believed.
- (d) The morphological variations in body and skull size between the cave and Tsavo lions are found to be insignificant.

Q 41. According to the passage, which of the following has NOT contributed to the popular image of Tsavo lions as savage creatures?

- (a) Tsavo lions have been observed to bring down one of the strongest and most aggressive animals—the Cape buffalo.
- (b) In contrast to the situation in traditional lion haunts, scarcity of non-buffalo prey in the Tsavo makes the Tsavo lions more aggressive.
- (c) The Tsavo lion is considered to be less evolved than the Serengeti variety.
- (d) Tsavo lions have been observed to attack vehicles as well as humans.

## PASSAGE V

The viability of the multinational corporate system depends upon the degree to which people will tolerate the unevenness it creates. It is well to remember that the ‘New Imperialism’ which began after 1870 in a spirit of Capitalism Triumphant, soon became seriously troubled and after 1914 was characterized by war, depression, breakdown of the international economic system and war again, rather than Free Trade, Pax Britannica and Material Improvement. A major reason was Britain’s inability to cope with the by-products of its own rapid accumulation of capital; i.e., a class-conscious labour force at home; a middle class in the hinterland; and rival centres of capital on the Continent and in America. Britain’s policy tended to be atavistic and defensive rather than progressive—more concerned with warding off new threats than creating new areas of expansion. Ironically, Edwardian England revived the paraphernalia of the landed aristocracy it had just destroyed. Instead of embarking on a ‘big push’ to develop the vast hinterland of the Empire, colonial administrators often adopted policies to arrest the development of either a native capitalist class or a native proletariat which could overthrow them.

As time went on, the centre had to devote an increasing share of government activity to military and other unproductive expenditures; they had to rely on alliances with an inefficient class of landlords, officials and soldiers in the hinterland to maintain stability at the cost of development. A great part of the surplus extracted from the population was thus wasted locally.

The New Mercantilism (as the Multinational Corporate System of special alliances and privileges, aid and tariff concessions is sometimes called) faces similar problems of internal and external division. The centre is troubled: excluded groups revolt and even some of the affluent are dissatisfied with the roles. Nationalistic rivalry between major capitalist countries

remains an important divisive factor. Finally, there is the threat presented by the middle classes and the excluded groups of the underdeveloped countries. The national middle classes in the underdeveloped countries came to power when the centre weakened but could not, through their policy of import substitution manufacturing, establish a viable basis for sustained growth. They now face a foreign exchange crisis and an unemployment (or population) crisis—the first indicating their inability to function in the international economy and the second indicating their alienation from the people they are supposed to lead. In the immediate future, these national middle classes will gain a new lease of life as they take advantage of the spaces created by the rivalry between American and non-American oligopolists striving to establish global market positions.

The native capitalists will again become the champions of national independence as they bargain with multinational corporations. But the conflict at this level is more apparent than real, for in the end the fervent nationalism of the middle class asks only for promotion within the corporate structure and not for a break with that structure. In the last analysis their power derives from the metropolis and they cannot easily afford to challenge the international system. They do not command the loyalty of their own population and cannot really compete with the large, powerful, aggregate capitals from the centre. They are prisoners of the taste patterns and consumption standards set at the centre.

The main threat comes from the excluded groups. It is not unusual in underdeveloped countries for the top 5 per cent to obtain between 30 and 40 per cent of the total national income, and for the top one-third to obtain anywhere from 60 to 70 percent. At most, one-third of the population can be said to benefit in some sense from the dualistic growth that characterizes development in the hinterland. The remaining two-thirds, who together get only one-third of the income, are outsiders, not because they do not contribute to the economy, but because they do not share in the benefits. They provide a source of cheap labour which helps keep exports to the developed world at a low price and which has financed the urban-biased growth of recent years. In fact, it is difficult to see how the system in most underdeveloped countries could survive without cheap labour since removing it (e.g., diverting it to public works projects as is done in socialist countries) would raise consumption costs to capitalists and professional elites.

Q 42. According to the author, the British policy during the ‘New Imperialism’ period tended to be defensive because:

- (a) It was unable to deal with the fallouts of a sharp increase in capital.
- (b) Its cumulative capital had undesirable side-effects.
- (c) Its policies favoured developing the vast hinterland.
- (d) It prevented the growth of a set-up which could have been capitalistic in nature.

Q 43. The author is in a position to draw parallels between New Imperialism and New Mercantilism because:

- (a) Both originated in the developed Western capitalist countries.

- (b) New Mercantilism was a logical sequel to New Imperialism.  
 (c) They create the same set of outputs—a labour force, middle classes and rival centres of capital.  
 (d) Both have comparable uneven and divisive effects.
- Q 44. Under New Mercantilism, the fervent nationalism of the native middle classes does not create conflict with the multinational corporations because they (the middle classes):  
 (a) Negotiate with the multinational corporations.  
 (b) Are dependent on the international system for their continued prosperity.  
 (c) Are not in a position to challenge the status quo.  
 (d) Do not enjoy popular support.
- Q 45. In the sentence, “They are prisoners of the taste patterns and consumption standards set at the centre.” (fourth paragraph), what is the meaning of ‘centre’?  
 (a) National government  
 (b) Native capitalists  
 (c) New capitalists  
 (d) None of the above

Number of questions = 5

Note: Questions 46 to 50 carry two marks each.

**Direction for questions 46 and 47:** *The sentences given in each question, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of sentences from among the given choices to construct a coherent paragraph.*

- Q 46. A. Experts such as Larry Burns, head of research at GM, reckon that only such a full hearted leap will allow the world to cope with the mass motorization that will one day come to China or India.  
 B. But once hydrogen is being produced from biomass or extracted from underground coal or made from water, using nuclear or renewable electricity, the way will be open for a huge reduction in carbon emissions from the whole system.  
 C. In theory, once all the bugs have been sorted out, fuel cells should deliver better total fuel economy than any existing engines.  
 D. That is twice as good as the internal combustion engine, but only five percentage points better than a diesel hybrid.  
 E. Allowing for the resources needed to extract hydrogen from hydrocarbon, oil, coal or gas, the fuel cell has an efficiency of 30 percent.  
 (a) CEDBA      (b) CEBDA  
 (c) AEDBC      (d) ACEBD

- Q 47. A. But this does not mean that death was the Egyptians' only preoccupation.  
 B. Even papyri come mainly from pyramid temples.  
 C. Most of our traditional sources of information about the Old Kingdom are monuments of the rich like pyramids and tombs.

- D. Houses in which ordinary Egyptians lived have not been preserved, and when most people died they were buried in simple graves.  
 E. We know infinitely more about the wealthy people of Egypt than we do about the ordinary people, as most monuments were made for the rich.  
 (a) CDBEA      (b) ECDAB  
 (c) EDCBA      (d) DECAB

**Direction for questions 48 to 50:** *Four alternative summaries are given below each text. Choose the option that best captures the essence of the text.*

- Q 48. Modern bourgeois society, said Nietzsche, was decadent and enfeebled—a victim of the excessive development of the rational faculties at the expense of will and instinct. Against the liberal-rationalist stress on the intellect, Nietzsche urged recognition of the dark mysterious world of instinctual desires—the true forces of life. Smother the will with excessive intellectualizing and you destroy the spontaneity that sparks cultural creativity and ignites a zest for living. The critical and theoretical outlook destroyed the creative instincts. For man's manifold potential to be realized, he must forego relying on the intellect and nurture again the instinctual roots of human existence.  
 (a) Nietzsche urges the decadent and enfeebled modern society to forego intellect and give importance to creative instincts.  
 (b) Nietzsche urges the decadent and enfeebled modern society to smother the will with excessive intellectualising and ignite a zest for living.  
 (c) Nietzsche criticizes the intellectuals for enfeebling the modern bourgeois society by not nurturing man's creative instincts.  
 (d) Nietzsche blames excessive intellectualization for the decline of modern society and suggests nurturing creative instincts instead.

- Q 49. Local communities have often come in conflict with agents trying to exploit resources, at a faster pace, for an expanding commercial-industrial economy. More often than not, such agents of resource-intensification are given preferential treatment by the state, through the grant of generous long leases over mineral or fish stocks, for example, or the provision of raw material at an enormously subsidized price. With the injustice so compounded, local communities at the receiving end of this process have no resource expert direct action, resisting both the state and outside exploiters through a variety of protest techniques. These struggles might perhaps be seen as a manifestation of a new kind of class conflict.  
 (a) A new kind of class conflict arises from preferential treatment given to agents of resource-intensification by the state which the local community sees as unfair.  
 (b) The grant of long leases to agents of resource-intensification for an expanding commercial-

- industrial economy leads to direct protests from the local community, which sees it as unfair.
- (c) Preferential treatment given by the state to agents of resource-intensification for an expanding commercial-industrial economy exacerbates injustice to local communities and leads to direct protests from them, resulting in a new type of class conflict.
- (d) Local communities have no option but to protest against agents of resource intensification and create a new type of class conflict when they are given raw material at subsidized prices for an expanding commercial-industrial economy.
- Q 50. Although almost all climate scientists agree that the Earth is gradually warming, they have long been of two minds about the process of rapid climate shifts within larger periods of change. Some have speculated that the process works like a giant oven freezer, warming or cooling the whole planet at the same time. Others think that shifts occur on opposing schedules in the Northern and Southern Hemispheres, like exaggerated seasons. Recent research in Germany examining climate patterns in the Southern Hemisphere at the end of the last Ice Age strengthens the idea that warming and cooling occurs at alternate times in the two hemispheres. A more definitive answer to this debate will allow scientists to better predict when and how quickly the next climate shift will happen.
- (a) Scientists have been unsure whether rapid shifts in the Earth's climate happen all at once or on opposing schedules in different hemispheres; research will help find a definitive answer and better predict climate shifts in future.
- (b) Scientists have been unsure whether rapid shifts in the Earth's climate happen all at once or on opposing schedules in different hemispheres; finding a definitive answer will help them better predict climate shifts in future.
- (c) Research in Germany will help scientists find a definitive answer about warming and cooling of the Earth and predict climate shifts in the future in a better manner.
- (d) More research rather than debates on warming or cooling of the Earth and exaggerated seasons in its hemispheres will help scientists in Germany predict climate changes better in future.

# ANSWERS



## SECTION 1—VERBAL ABILITY

Q. No.	Answer						
1	(c)	2	(a)	3	(d)	4	(d)
5	(b)	6	(a)	7	(d)	8	(c)
9	(b)	10	(d)	11	(a)	12	(c)
13	(b)	14	(d)	15	(c)	16	(c)
17	(d)	18	(a)	19	(b)	20	(b)
21	(d)	22	(a)	23	(a)	24	(b)
25	(b)	26	(b)	27	(d)	28	(a)
29	(c)	30	(b)	31	(a)	32	(d)
33	(a)	34	(d)	35	(b)	36	(c)
37	(b)	38	(c)	39	(c)	40	(c)
41	(c)	42	(a)	43	(d)	44	(b)
45	(d)	46	(a)	47	(c)	48	(d)
49	(c)	50	(b)				

## HINTS AND EXPLANATIONS

### SECTION 1—VERBAL ABILITY



- (c) The keywords ‘serene’ and ‘out of season’ suggest that the corridors must be ‘unoccupied’ or ‘empty’. ‘Hollow’ in choice (b) and ‘white’ in choice (d) have no logical connection. ‘Striking’ in choice (a) counters the very essence of the passage.
- (a) Choices (c) and (d) have similar meaning and are misnomers in the given context, as the keywords ‘lowpitched voices’ require a word that is synonymous with ‘quiet’ or ‘calm’. The usage of the adjective ‘faded’ in the sentence to describe men is untenable.
- (d) The given sentence depicts the President as a very angry person as suggested by the keyword ‘scowled’. Choices (a), (b) and (c) are either positive or neutral and cannot fit in the sentence.
- (d) ‘Paced’ in choice (a) is not consistent with the mood of the President as depicted in the first part of the sentence. It means ‘to walk fast’. ‘Strolled’ in (b) means ‘walk casually’ and hence is discarded. ‘Stormed’ in choice (c) refers to ‘attack a place suddenly’ or ‘say something in a loud, angry way’. But here, neither of them fits in. ‘Prowled’ refers to moving in a restless manner and hence fits.
- (b) ‘Blunt’ means ‘very direct’ with respect to a remark. ‘Devious’ in choice (d) means ‘dishonest’ and is incorrect as the statement is a frank one. For the same reason ‘tactful’ in choice (c) is also not appropriate.
- (a) ‘Interest’ is the most appropriate word because the original amount he owed to the department accumulated to the said figure. ‘Taxes’ is redundant while, ‘principal’ usually refers to a loan (in this case it is not). ‘Returns’ is what one gets rather than pays.
- (d) ‘Sanctions’ is used for an official permission or order that limits trade and is rarely used for an amount. ‘Fees’ are paid for a service and ‘refunds’ are what one gets back. ‘Fines’ is the best choice because of the penalty component.
- (c) ‘Attach’ is the word used for officially taking something away. ‘Impound’ means ‘confiscate’ and is generally used in the context of illegal goods or contraband. Other choices are in no way comparable.
- (b) ‘Smashed’ in choice (a) and ‘dismantled’ in choice (c) are far from being logical. ‘Frozen’ is a wrong choice. ‘Frozen’ is used in the context of making bank accounts inoperable, etc. Automobiles are seized.
- (d) Clearly the topic is about a person who has violated income tax regulations and he should be called an ‘offender’ of the law.
- (a) Only statements B and C are grammatically incorrect. In statement C, the error is ‘took shower’, the

- correction is ‘took a shower’. In statement B, ‘what to do’ is incorrect. ‘What she should do’ is correct.
12. (c) There are errors in statements B and D. In statement B, ‘efforts gave fruit’ is incorrect. The correction is ‘efforts bore fruit’. In statement C, ‘complemented her for’ is incorrect. The correction is ‘complimented her on’.
13. (b) There are errors in both B and D. The error in B is “pleaded guilty of .....”. The correction is “pleaded guilty to .....”. In D, the error is “sentenced for three years .....”. The correction is “sentenced to three years .....”.
14. (d) Choice (d) fits into the blank. In choice (a) the usage of the indefinite article is erroneous. Choices (b) and (c) are erroneous due to the incorrect ordering of words.
15. (c) Choices (a) and (d) are ruled out because ‘suggest’ does not go with ‘to + verb’ form. Choice (b) cannot fit in the blank because of the error in parallelism. The appropriate structure is “Many people suggest ..... and others advocate .....”.
16. (c) The tense in choices (a) and (b) is not consistent. Moreover, choice (a) uses both ‘essential’ and ‘must’, thus rendering either one of these words redundant. In choice (d) ‘things’ the plural form cannot take ‘it’.
17. (d) ‘Fallout’ as used in choice (a) refers to the after-effects of nuclear radiation. The word as used in choices (b) and (c) refers to ‘political impact’ and ‘environmental impact’ in the respective sentences. The usage is appropriate in all these choices. However, it has been used inappropriately in choice (d). The word that should have been used in place of ‘fallout’ is ‘failure’.
18. (a) ‘Passing marks’ is erroneous. The correction is ‘pass marks’. The word has been used correctly in the other choices.
19. (b) The word ‘bolt’ has been used correctly in choices (a), (c) and (d). ‘A bolt of silk’ refers to silk wound around a long metal tube. ‘Bolt’ as used in choice (d) means ‘to escape’. However, the usage is inappropriate in choice (b). Bolt means to ‘make a dash for’. But how can a person make a bolt for the gate, when he is unable to move?
20. (b) ‘B’ opens the paragraph as it launches the topic—“Germany’s military position in World War II”. E follows B; the word ‘catastrophic’ in ‘E’ gives continuation to the idea expressed in B. Further, E talks about the eastern front. D talks about Poland and A talks about the western front. Hence EDA go together. Finally C concludes.
21. (d) ‘E’ is the opening statement as it introduces the topic of the paragraph. Statement C follows Statement E since now we know why Bush felt he had a mission to restore power to the Presidency. Hence EC. ‘DB’ tells us that he was not merely fighting just the Democrats but the entire, hence DB is a mandatory pair. Further, ‘A’ tells us what Bush did to tackle the problem, He bypassed the Congress (the U.S. legislative house). Hence CEADB.
22. (a) B opens the paragraph. The words “the status of the participants was unknown .....” in B give a hint that E should follow it, i.e., the words “we therefore, tracked .....” continue the idea in B. The words ‘resident male’ in E find a continuation in D. The words ‘the two neighbours’ and ‘they’ in A and C respectively are linked. Hence BEDAC.
23. (a) The main idea expressed in the paragraph is that the food habits of people ranging from the Arctic to the tropics differ because of the climate and produce of their respective regions. This is best expressed in choice (a) Choice (b) is incomplete as it fails to mention that the produce of the region is a factor in shaping food habits. Choice (c) is incomplete as it does not mention the role that the weather plays in shaping food habits. Finally, choice (d) is a misrepresentation of the idea mentioned in the text. The original text does not say that people eat what they do because of preference. Further, the text does not say that people should change their food habits.
24. (b) The paragraph conveys the idea that initially it is natural to be wary of one’s school fellows as one knows them well. It also says that one needs to avoid prejudice. Further, one must avoid the faults that one sees in others and thus win them over. These ideas are best expressed in choice (b). Choice (a) suggests that one must complain when one finds others prejudiced. This is a distortion of the meaning of the original text. Choice (c) omits the point that one must avoid the faults that one finds in others. Choice (d) implies that one should make enemies with others if they behave badly. This is a misrepresentation.
25. (b) Refer paragraph 4 which shows that the changes that have taken place in the automobile are insignificant. Paragraph 6 says the same for planes. Further, the last paragraph talks about ‘calcified organisations’ and ‘industry-wide emulation’. Hence it confirms that industry is not very innovative.
26. (b) Paragraph 4, line 5 and the last line confirms choice (b).
27. (d) Paragraph 3, last line supports choice (d).
28. (a) The last line of the passage indicates choice (a).
29. (c) The statement is made in the context of the artists’ freedom to choose a subject and the absence of subject in abstract art. Refer paragraph 2, lines 1 and 2.
30. (b) Paragraph 7, line 1 states that when a culture is in a state of disintegration or transition, in other words insecure, the freedom of the artist increases. This clearly indicates that choice (b) is correct.

31. (a) Paragraph 7 shows that when a culture is insecure the artist has freedom.
32. (d) The passage lists answer choices (a), (b) and (c) as necessary attributes for a painter to succeed. Choice (a) is supported by paragraph 5, line 1; choice (b) is supported by paragraph 5, line 3; and choice (c) is supported by paragraph 5, line 2. However, choice (d) is not supported by the passage.
33. (a) Choice (b), (c) and (d) are true according to the passage. Choice (b) is supported by paragraph 6, lines 1–3. Choice (c) is supported by paragraph 7, lines 3 and 4. Choice (d) is supported by paragraph 5, lines 3–7. The passage says that the artist and his art is preceded by the culture of the society. Further, it goes on to say that if intellectuals are able to appreciate Renaissance art and Aztec art, it is because they are aware of the culture and history that inspired those works of art. This clearly implies that choice (d) is true. Choice (a) however, is incorrect. Paragraph 3, lines 2 and 3 state that ‘a subject does not start ..... with something that the author happens to remember’.
34. (d) Paragraph 1, line 4 supports choice (d).
35. (b) Paragraph 1, line 2 and paragraph 4, line 1 indicate that choice (b) is correct.
36. (c) Last paragraph, line 6 and line 8 support choice (c).
37. (b) Refer paragraph 3, lines 2 and 3, and paragraph 4, line 1.
38. (c) Paragraph 3, line 11 supports choice (c).
39. (c) The statement implies that Craig and Peyton West felt that the amateur observers were incorrect in believing that the maneless lions were adults. Now they know that the amateurs were infact right.
40. (c) The last paragraph states the hypothesis. It is that the Tsavo lions are similar to the cave lions of Pleistocene. If the Pleistocene lions are shown to be less violent than earlier thought, then the aggressiveness of the Tsavo lion cannot be reconciled with the lack of it in cave lions of Pleistocene. This calls into question the hypothesis that the two are similar. Hence choice (c) weakens the hypothesis. Choice (a) will neither strengthen nor weaken the hypothesis. Choice (b) will strengthen the hypothesis. Choice (d) will also strengthen the hypothesis as it states that the morphological variations are insignificant.
41. (c) Choice (a), (b) and (d) refer to facts that have contributed to the popular image of the Tsavo lion as being very aggressive. Choice (c) however, has not contributed to that image.
42. (a) Paragraph 1, lines 5 and 6 say that Britain was unable ‘to cope with the by-products of its own rapid accumulation of capital’.
43. (d) The underlying sentiment in paragraph 3 shows that New Mercantilism like New Imperialism (paragraph 1) has uneven and divisive effects. Refer paragraph 3, line 2.
44. (b) Refer paragraph 4, line 4. The sentence states that the native middle class could not afford to challenge the international system.
45. (d) Refer paragraph 3, lines 5 and 6. The national middle class came to power ..... In other words they became the centre.
46. (a) ‘C’ begins the paragraph. There is a reference to ‘fuel cells’ in C. E continues the idea of ‘total fuel economy’ which is expressed in C. Hence CE go together. D is the continuation as it says that the 30 percent efficiency is twice as good as the efficiency of the internal combustion engine. Hence CED. ‘B’ introduces another facet, i.e., reducing carbon emissions. ‘A’ continues, as it talks about a full-hearted leap, which is a reference to what is mentioned in B. Hence CEDBA.
47. (c) The paragraph starts with ‘E’ as it launches the topic of how much is known about the rich and the poor in Egypt. The sentence ends with the statement that ‘monuments were made for the rich’. This should be logically followed by what was made for the poor. Hence ‘D’ should follow. Hence CD. Then the discussion moves on to sources of information. Hence EDC. ‘Papyri’ in B and ‘sources of information’ in C are linked as ‘Papyri’ refer to documents which are sources of information. Hence EDCB. ‘A’ rounds up the discussion by stating that notwithstanding the discussion in the preceding statements, death is not the only preoccupation of the Egyptians. Hence EDCBA.
48. (d) The central idea of the paragraph is that Nietzsche opined that excessive intellectualisation is responsible for the decline of modern society and suggests nurturing creative instincts instead. Choice (d) captures this correctly.
49. (c) The main idea expressed is that the state has given preferential treatment to agents of resource-intensification to intensity an expanding commercial-industrial economy. This action is protested by the local communities which has in turn resulted in class conflict. All these ideas are expressed in choice (c).
50. (b) The paragraph mainly talks about scientists not being sure about the changes in the Earth’s climate; whether they happen all at once or at different times in both the hemispheres. A definitive answer will help them to predict future climatic changes. These ideas are best expressed in choice (b).

## ➤ SECTION 2—LOGICAL REASONING

**Direction** for questions 1 to 4: Answer the questions on the basis of the information given below. The Dean's office recently scanned student results into the central computer system. When their character reading software cannot read something, it leaves the space blank. The scanner output reads as follows:

Name	Finance	Marketing	Statistics	Strategy	Operations	GPA
Aparna		B	F			1.4
Bikas	D	D	F	F		
Chandra		D	A	F	F	2.4
Deepak	A	B		D	D	3.2
Fazal	D	F	B		D	2.4
Gowri	C	C	A		B	3.8
Hari		B	A		D	2.8
Ismet			B		A	
Jagdeep	A	A	B		C	3.8
Kunal	F		A	F	F	1.8
Leena	B	A		B	F	3.2
Manab			A	B	B	
Nisha	A	D	B	A	F	3.6
Osman	C		B	B	A	4.6
Preeti	F	D		D		3.2
Rahul	A	C	A		F	4.2
Sameer		C	F	B		
Tara	B					2.4
Utkarsh			F	C	A	3
Vipul	A		C	C	F	2.4

In the grading system, A, B, C, D and F grades fetch 6, 4, 3, 2 and 0 grade points respectively. The Grade Point Average (GPA) is the arithmetic mean of the grade points obtained in the five subjects. For example, Nisha's GPA is  $(6 + 2 + 4 + 6 + 0)/5 = 3.6$ . Some additional facts are also known about the student's grades. These are:

- (a) Vipul obtained the same grade in marketing as Aparna obtained in finance and strategy.
- (b) Fazal obtained the same grade in strategy as Utkarsh did in marketing.
- (c) Tara received the same grade in exactly three courses.

Q 1. What grade did Preeti obtain in statistics?

- (a) A
- (b) B
- (c) C
- (d) D

Q 2. In operations, Tara could have received the same grade?

- (a) Ismet
- (b) Hari
- (c) Jagdeep
- (d) Manab

Q 3. In strategy, Gowri's grade point was higher than that obtained by

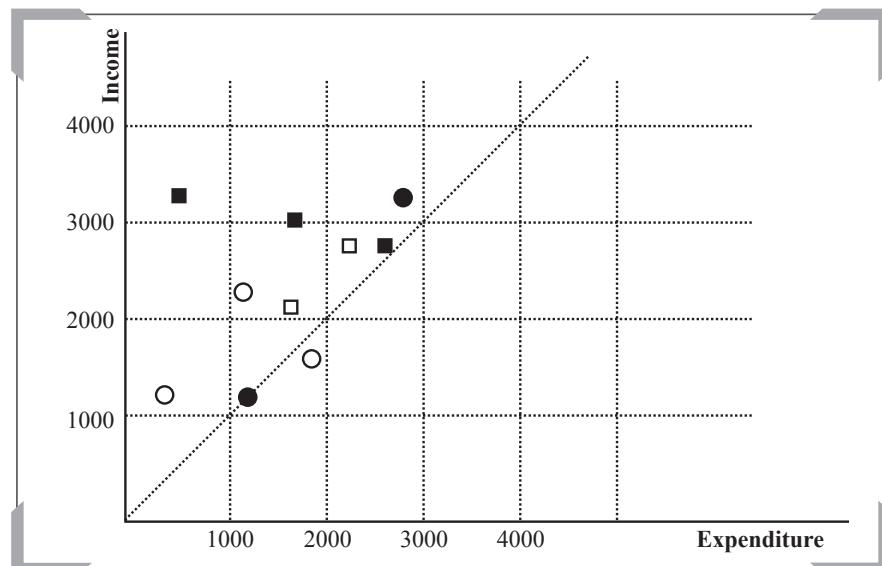
- (a) Fazal
- (b) Hari
- (c) Nisha
- (d) Rahul

Q 4. What grade did Utkarsh obtain in finance?

- (a) B
- (b) C
- (c) D
- (d) F

**Direction for questions 5 to 8:** Answer the following questions on the basis of the information given below.

The data points in the figure below represent monthly income and expenditure data of individual members of the Ahuja family (■), the Bose family (□), the Coomer family (○), and the Dubey family (●). For these questions, saving is defined as:



Q 5. Which family has the lowest average income?

- (a) Ahuja      (b) Bose      (c) Coomer      (d) Dubey

Q 6. Which family has the highest average expenditure?

- (a) Ahuja      (b) Bose      (c) Coomer      (d) Dubey

Q 7. Which family has the lowest average saving?

- (a) Ahuja      (b) Bose      (c) Coomer      (d) Dubey

Q 8. The highest amount of savings accrues to a member of which family?

- (a) Ahuja      (b) Bose      (c) Coomer      (d) Dubey

**Direction for questions 9 to 12:** Answer the following questions on the basis of the information given below. Prof. Singh has been tracking the number of visitors to his homepage. His service provider has provided him with the following data on the country of origin of the visitors and the university they belong to.

Number of visitors

Country	DAY		
	1	2	3
Canada	2	0	0
Netherlands	1	1	0
India	1	2	0
UK	2	0	2
USA	1	0	1

Number of visitors

<i><b>University</b></i>	<i><b>DAY</b></i>		
	<i><b>1</b></i>	<i><b>2</b></i>	<i><b>3</b></i>
University 1	1	0	0
University 2	2	0	0
University 3	0	1	0
University 4	0	0	2
University 5	1	0	0
University 6	1	0	1
University 7	2	0	0
University 8	0	2	0

Q 9. To which country does University 5 belong?

- (a) India and Netherlands but not USA      (b) India or USA but not Netherlands  
 (c) Netherlands or USA but not India      (d) India or USA but not UK

Q 10. University 1 can belong to

- (a) UK      (b) Canada      (c) Netherlands      (d) USA

Q 11. Which among the listed countries can possibly host three of the eight listed universities?

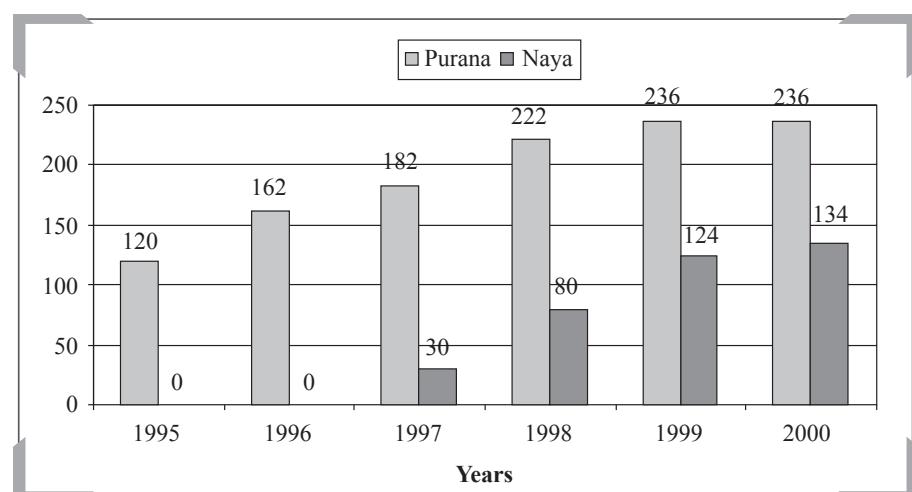
- (a) None      (b) Only UK      (c) Only India      (d) Both India and UK

Q 12. Visitors from how many universities from UK visited Prof. Singh's homepage in the three days?

- (a) 1      (b) 2      (c) 3      (d) 4

**Direction for questions 13 to 16:** Answer the following questions on the basis of the information given below.

Purana and Naya are two brands of kitchen mixer-grinders available in the local market. Purana is an old brand that was introduced in 1990, while Naya was introduced in 1997. For both these brands, 205 of the mixer-grinders bought in a particular year are disposed off as junk exactly two years later. It is known that 10 Purana mixer-grinders were disposed off in 1997. The following figures show the number of Purana and Naya mixer-grinders in operation from 1995 to 2000, as at the end of the year.



**Direction from questions 17 to 20:** Answer the following questions on the basis of the information given below:

A study was conducted to ascertain the relative importance that employees in five different countries assigned to five different traits in their Chief executive officers. The traits were compassion (C), decisiveness (D), negotiation skills (N), public visibility (P), and vision (V). The level of dissimilarity between two countries is the maximum difference in the ranks allotted by the two countries to any of the five traits. The following table indicates the rank order of the five traits for each country.

Rank	Country				
	India	China	Japan	Malaysia	Thailand
1	C	N	D	V	V
2	P	C	N	D	C
3	N	P	C	P	N
4	V	D	V	C	P
5	D	V	P	N	D



**Direction for questions 21 to 26:** Each question is followed by two statements, A and B. Answer each question using the following instructions.

Choose (a) if the question can be answered by using one of the statements alone but not by using the other statement alone.  
Choose (b) if the question can be answered by using either of the statements alone.  
Choose (c) if the question can be answered by using both statements together but not by either statement alone.  
Choose (d) if the question cannot be answered on the basis of the two statements.

- Q 21. Zakib spends 30% of his income on his children's education, 20% on recreation and 10% on healthcare. The corresponding percentages for Supriyo are 40%, 25% and 13%. Who spends more on children's education?

(A) Zakib spends more on recreation than Supriyo.  
(B) Supriyo spends more on health than Zakib.

Q 22. Four candidates for an award obtain distinct scores in a test. Each of the four caste a vote to choose the winner of the award. The candidate who gets the largest number of votes wins the award. In case of a tie in the voting process, the candidate with the highest score wins the award. Who wins the award?

(A) The candidate with top three scores each vote for the top score amongst the other three.  
(B) The candidate with the lowest score votes for the player with the second highest score.

- Q 23. In a class of 30 students, Rashmi secured the third rank among the girls, while her brother Kumar studying in the same class secured the sixth rank in the whole class. Between the two, who had a better overall rank?  
(A) Kumar was among the top 25% of boys merit list in the class in which 60% were boys.  
(B) There were three boys among the top five rank holders, and three girls among the top ten rank holders.

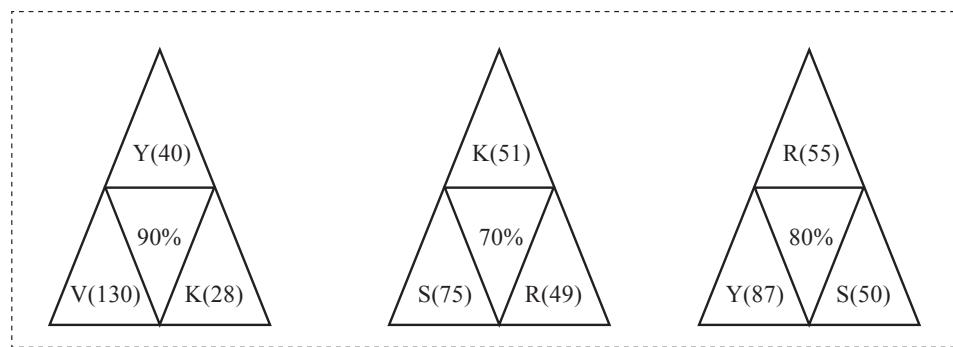
Q 24. Tarak is standing 2 steps to the left of red mark and 3 steps to the right of a blue mark. He tosses a coin. If it comes up heads, he moves one step to the right; otherwise he moves one step to the left. He keeps doing this until he reaches one of the two marks, and then he stops. At which mark does he stop?  
(A) He stops after 21 coins tosses.  
(B) He obtains three more tails than heads.

Q 25. Ravi spent less than Rs 75 to buy one kilogram each of potato, onion, and gourd. Which one of the three vegetables bought was the costliest?  
(A) 2 kg potato and 1 kg gourd cost less than 1 kg potato and 2 kg gourd.  
(B) 1 kg potato and 2 kg onion together cost the same as 1 kg onion and 2 kg gourd.

Q 26. Nandini paid for an article using currency notes of denominations Rs 1, Rs 2, Rs 5, and Rs 10 using at least one note of each denomination. The total number of five and ten rupee notes used was one more than total number of one and two rupee notes used. What was the price of the article?  
(A) Nandini used a total of 13 currency notes.  
(B) The price of the article was a multiple of Rs 10.

**Direction for questions 27 to 30:** Answer the following questions on the basis of the information given below.

Coach John sat with the score cards of Indian players from the 3 games in a one day cricket tournament where the same set of players played for India and all the major batsman got out. John summarized the batting performance through three diagrams, one for each game. In each diagram, the three outer triangles communicate the number of runs scored that was scored by the three top scores from India, where K, R, S, V and Y represents Kaif, Rahul, Saurav, Virender and Yuvraj respectively. The middle triangle in each diagram denotes the percentage of the total score that was scored by the top three Indian scorers in that game. No two players score the same number of runs in the same game. John also calculated two batting indices for each player based on his scores in the tournaments; the R-index of a batsman is the difference between his highest and lowest scores in the 3 games while the M-index is the middle number, if his scores are arranged in a non-increasing order.



**Direction for questions 31 to 34: Answer the following questions on the basis of the information given below.**

Twenty one participants from four continents (Africa, America, Australia, and Europe) attended a United Nations conference. Each participant was an expert in one of four fields, labour, health, population studies and refugee relocation. The following five facts about the participants are given.

- (a) The number of labour experts in the camp was exactly the half the number of experts in each of the other three fields.
- (b) Africa did not send any labour expert. Otherwise every continent, including Africa, sent at least one expert in each categories.
- (c) None of the continents sent more than three experts in any category.
- (d) If there had been one less Australian expert, then the America would have had twice as many experts as each of the other continents.
- (e) Mike and Alfonzo are leading experts of population studies who attended the conference. They are from Australia.

Q 31. Which of the following combination is not possible?

- (a) 2 experts in population studies from the America and 2 health experts from Africa attended the conference.
- (b) 2 experts in population studies from the America and 1 health expert from Africa attended the conference.
- (c) 3 experts in refugee relocation from the America and 1 health expert from Africa attended the conference.
- (d) Africa and America each had 1 expert in population studies attending the conference.

Q 32. If Ramos is the alone American expert in population studies, which of the following is not true about the numbers of experts in the conference from the four continents?

- (a) There is one expert in health from America.
- (b) There is one expert in refugee relocation from Africa.
- (c) There are two experts in health from America.
- (d) There are three experts in refugee relocation from the America.

Q 33. Alex, an American expert in refugee relocation, was the first keynote speaker in the conference. What can be inferred the number about the number of American experts in refugee relocation in the conference, excluding Alex?

- |                       |                       |
|-----------------------|-----------------------|
| I. At least one       | II. At most two       |
| (a) Only I and not II | (b) only II and not I |
| (c) Both I and not II | (d) Neither I nor II  |

Q 34. Which of the following numbers cannot be determined from the information given?

- (a) Number of labour experts from America.
- (b) Number of health experts from Europe.
- (c) Number of health experts from Australia.
- (d) Number of experts in refugee relocation from Africa.

**Direction for questions 35 to 38: Answer the following questions on the basis of the information given below.**

The year was 2006. All six teams in Pool A of World Cup hockey, play each other exactly once. Each win earns a team three points, a draw earns one point and a loss earns zero point. The two teams with the highest points qualify for the semi finals. In case of a tie, the team with the highest goal difference (Goals for – Goals against) qualifies.

In the opening match, Spain lost to Germany. After the second round (after each team played two matches), the pool table looked as shown below.

<b>Teams</b>	<b>Games Played</b>	<b>Won</b>	<b>Drawn</b>	<b>Lost</b>	<b>Goals for</b>	<b>Goals against</b>	<b>Points</b>
Germany	2	2	0	0	3	1	6
Argentina	2	2	0	0	2	0	6
Spain	2	1	0	1	5	2	3
Pakistan	2	1	0	1	2	1	3
New Zealand	2	0	0	2	1	6	0
South Africa	2	0	0	2	1	4	0

In the third round, Spain played Pakistan, Argentina played Germany, and New Zealand played South Africa. All the third round matches were drawn. The following are some results from the fourth and fifth round matches.

- (a) Spain won both the fourth and fifth round matches.
  - (b) Both Argentina and Germany won their fifth round matches by 3 goals to 0.
  - (c) Pakistan won both the fourth and fifth round matches by 1 goal to 0.
- Q 35. Which one of the following statement is true about matches played in the first two rounds?
- (a) Germany beat New Zealand by 1 goal to 0. (b) Spain beat New Zealand by 4 goals to 0.
  - (c) Spain beat South Africa by 2 goals to 0. (d) Germany beat South Africa by 2 goals by 1.
- Q 36. Which one of the following statements is true about matches played in the first two rounds?
- (a) Pakistan beat South Africa by 2 goals to 1. (b) Argentina beat Pakistan by 1 goal to 0.
  - (c) Germany beat Pakistan by 2 goals to 1. (d) Germany beat Spain by 2 goals to 1.
- Q 37. If Pakistan qualified as one of the two teams from Pool A, which was the other team that qualified?
- (a) Argentina (b) Germany (c) Spain (d) Cannot be determined
- Q 38. Which team finished at the top of the pool after five rounds of matches?
- (a) Argentina (b) Germany (c) Spain (d) Cannot be determined

# ANSWERS



## ◀ SECTION 2—LOGICAL REASONING

Q. No.	Answer						
1	(a)	2	(d)	3	(b)	4	(c)
5	(c)	6	(d)	7	(d)	8	(a)
9	(a)	10	(c)	11	(a)	12	(b)
13	(b)	14	(c)	15	(d)	16	(a)
17	(d)	18	(a)	19	(b)	20	(d)
21	(a)	22	(a)	23	(a)	24	(b)
25	(c)	26	(d)	27	(c)	28	(a)
29	(b)	30	(b)	31	(d)	32	(c)
33	(c)	34	(d)	35	(d)	36	(b)
37	(b)	38	(d)				

## HINTS AND EXPLANATIONS

### ◀ SECTION 2—LOGICAL REASONING



1. (a) GPA of Preeti = 3.2

i.e.,

$$\frac{F + D + X + D + Y}{5} = 3.2$$

$$0 + 2 + X + 2 + Y = 16$$

$$X + Y = 12$$

The only possible combination is A, A.

So, Preeti obtained A grade in Statistics.

2. (d) Tara got same grade in three courses. We know that Tara has got B grade in one of the subject and her GPA is 2.4. So B is the grade which Tara has scored in three of the subjects. So Tara has received the same grade as Maanav.

3. (b) GPA of Gouri is 3.8

i.e.,  $3 + 3 + 6 + x + 4 = 3.8 \times 5$

$$16 + x = 18$$

$$x = 2$$

So, the grade of Gouri in Strategy is C.

Rahul's grade in Strategy =  $(4.2 \times 5) - 15 = 6$ , i.e., A.

Fazal's grade in Strategy =  $(2.4 \times 5) - 8 = 4$ , i.e., B.

Hence, Gouri's grade will be higher than that of Hari.

4. (c) As Fazal's GPA = 2.4

So  $D + F + B + P + D = 2.4 \times 5$

$$2 + 0 + 4 + P + 2 = 12$$

So, his grade in Strategy is B.

Utkarsh has also scored grade B in Marketing.

So, for Utkarsh,  $X + B + F + C + A = 3 \times 5$

$$X + 4 + 0 + 3 + 6 = 15$$

So, grade of Utkarsh in Finance = D.

5. (c) Average income of Ahuja =  $\frac{700 + 1700 + 1800}{3} = \frac{4200}{3}$

Average income of Bose =  $\frac{800 + 1600 + 2300}{3} = \frac{4700}{3}$

Average income of Coomar =  $\frac{300 + 1100 + 1900}{3} = \frac{3300}{3}$

Average income of Dubey =  $\frac{1200 + 2800}{2} = \frac{4000}{2}$

Thus, Coomer has the lowest income.

6. (d) In the figure draw a line parallel to the expenditure and mid way between observations of each families' values.

7. (d) The figure shows the first member of Dubey family is on the line indicating income = expenditure. The second member is just above the line.

8. (a) Look at the left most member of Ahuja's family.

**Solution to Q9 to 12:**

When we compare table 1 and 2, University 4 corresponds to UK and University 6 corresponds to USA (after day 3 onwards values are concerned) and University 8 corresponds to India and University 3 to Netherlands and now Indian or Netherlands can take University 1 or University 5. Now University 2 and 7 belongs to either UK or Canada (only one).

University	Day			Country
	1	2	3	
University 1	1	0	0	India/Netherlands
University 2	2	0	0	UK/Canada
University 3	0	1	0	Netherlands
University 4	0	0	2	UK
University 5	1	0	0	India/Netherlands
University 6	1	0	1	USA
University 7	2	0	0	UK/Canada
University 8	0	2	0	India

13. (b)

	1997	1998	1999
Total Number of Naya mixer-grinders purchased	30	$80 - 30 = 50$	Total available in 1999 – Total carried forward from 1998 – Total carried forward from 1997 = $124 - 50 - 24 = 50$ .
Total Number of Naya mixer-grinders disposed	0	0	20% of 30 = 6

14. (c) Number of Naya mixer-grinders disposed in 1999 = 6

Number of Naya mixer-grinders disposed in the 2000 = 10

Total disposed by the end of 2000 = 16

15. (d) Initial number of Purana mixer-grinders are not available, hence, cannot be determined.

16. (a) 20 Purana mixer-grinders purchased in the year 1999.

17. (d) Thailand and Japan, because they have the maximum difference of 4 ranks ( $5 - 1$ ).
18. (a) China, because maximum difference between two parameters is 2.
19. (b) Maximum difference = 4.
20. (d) Japan and Malaysia
22. (a) Let us assume that A, B, C, D are 4 people getting a score of 10, 8, 6, 4.

A	B	C	D
10	8	6	4

Statement A:

According to the conditions A will give vote to B.

According to the conditions B will give vote to A.

According to the conditions C will give vote to A.

If D gives vote to A/B/C → 2 situation arises.

Either A will win or there will be a tie when D gives vote to B.

Even then A will win.

Hence, option (a) is the answer.

23. (a) Statement A:

Cannot say anything.

Statement B:

Because amongst the top 5, 3 are boys. 2 are girls. And Rashmi is third among the girls and Kumar is 6th.  
Hence, option (a) is sufficient.

24. (b) Statement A:

We can find that there are 12 tails and 9 heads.

This will give us the answer. So statement A is sufficient.

Statement B:

3 more tails than heads. So we will reach at blue point after tosses.

Hence, statement (B) is not sufficient.

26. (d) Statement A:

13 currency notes will give different values.

Statement B:

It will not give us the solution.

Even if we combine both the statements, we do not get a unique value.

Hence, option (d) is the answer.

### **Solution to Q27 to 30:**

Let us have a tabular presentation of the data given:

	<i>Pakistan</i>	<i>South Africa</i>	<i>Australia</i>
K	28	51	<48
R	<22	49	55
S	<22	75	50
V	130	<49	<48
Y	40	<49	87
Top 3 batsman	198	175	192
India total	220	250	240

**Solution to Q31 to 34:**

Let us have a tabular presentation of the data given:

	<i>Africa</i>	<i>America</i>	<i>Australia</i>	<i>Europe</i>	
L	0	1	1	1	3
H			1	1	6
P			2	1	6
R			1	1	6
	4	8	5	4	
					21

- (i) Because the labour experts is half of each other, so the only possible combination is:

$$\begin{array}{l} L-3 \\ H \\ P \\ R \end{array} \left\{ \begin{array}{l} 6 \text{ each} \end{array} \right.$$

(ii)

	<i>Africa</i>	<i>America</i>	<i>Australia</i>	<i>Europe</i>	
L	0	1	1	1	3
H	2	2	1	1	6
P	1	2	2	1	6
R	1	3	1	1	6
	4	8	5	4	
					21

	<i>Africa</i>	<i>America</i>	<i>Australia</i>	<i>Europe</i>	
L	0	1	1	1	3
H	1	3	1	1	6
P	1	2	2	1	6
R	2	2	1	1	6
	4	8	5	4	
					21

	<i>Africa</i>	<i>America</i>	<i>Australia</i>	<i>Europe</i>	
L	0	1	1	1	3
H	1	3	1	1	6
P	2	1	2	1	6
R	1	3	1	1	6
	4	8	5	4	
					21

**Solution to Q35 and 36:**

After 2nd round, table can be drawn like:

Team	Round 1 and Round 2 combinations	
	Goals for → Goals against	Goals for → Goals against
Germany	2 → 1	
Argentina	1 → 0	
Spain	4 → 0	1 → 2 (not possible)
	5 → 1	0 → 1 (possible)
Pakistan	2 → 0	0 → 1 (possible)
New Zealand	1 → 2	0 → 4 (not possible)
	0 → 1	1 → 5 (possible)
South Africa	1 → 2	0 → 2

**Solution to Q37 and 38:**

From the statements (a), (b), (c) given in the problem, four teams—Spain, Argentina, Germany and Pakistan appear to win their matches in the fifth round. However, there are only three matches per round and so only three teams can win their matches in any round.

So, this data set seems to have some inconsistency.

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# CAT 2005

## LEARNING Objectives

1. Read the instructions carefully before attempting the questions.
2. Do your rough work on Test Booklet and not on the Answer Sheet.
3. Total Questions = 60
4. There is negative marking.

### ➤ SECTION 1—VERBAL ABILITY

Number of questions = 10

**Note: Questions 1 to 10 carry one mark each.**

**Direction for questions 1 to 4:** *The passage given below is followed by a set of four questions. Choose the best answer to each question.*

A game of strategy, as currently conceived in game theory, is a situation in which two or more “players” make choices among available alternatives (moves). The totality of choices determines the outcomes of the game, and it is assumed that the rank order of preferences for the outcomes is different for different players. Thus the “interests” of the players are generally in conflict. Whether these interests are diametrically opposed or only partially opposed depends on the type of game.

Psychologically, most interesting situations arise when the interests of the players are partly coincident and partly opposed, because then one can postulate not only a conflict among the players but also inner conflicts within the players. Each is torn between a tendency to cooperate, so as to promote the common

interests, and a tendency to compete, so as to enhance his own individual interests.

Internal conflicts are always psychologically interesting. What we vaguely call “interesting” psychology is in very great measure the psychology of inner conflict. Inner conflict is also held to be an important component of serious literature as distinguished from less serious genres. The classical tragedy, as well as the serious novel, reveals the inner conflict of central figures. The superficial adventure story, on the other hand, depicts only external conflict; that is, the threats to the person with whom the reader (or viewer) identifies stem in these stories exclusively from external obstacles and from the adversaries who create them. On the most primitive level this sort of external conflict is psychologically empty. In the fistcuffs between the protagonists of good and evil, no psychological problems are involved or, (at any rate, none are depicted in juvenile representations of conflict).

The detective story, the “adult” analogue of a juvenile adventure tale, has at times been described as a glorification of intellectualized conflict. However, a great deal of the interest in the plots of these stories is sustained by withholding the unraveling of a solution to a problem. The effort of solving the problem is in itself not a conflict if the adversary (the unknown

criminal) remains passive, like Nature, whose secrets the scientist supposedly unravels by deduction. If the adversary actively puts obstacles in the detective's path toward the solution, there is genuine conflict. But the conflict is psychologically interesting only to the extent that it contains irrational components such as a tactical error on the criminal's part or the detective's insight into some psychological quirk of the criminal or something of this sort. Conflict conducted in a perfectly rational manner is psychologically no more interesting than a standard Western. For example, Tic-tac-toe, played perfectly by both players, is completely devoid of psychological interest. Chess may be psychologically interesting but only to the extent that it is played not quite rationally. Played completely rationally, chess would not be different from Tic-tac-toe.

In short, a pure conflict of interest (what is called a zero-sum game) although it offers a wealth of interesting conceptual problems, is not interesting psychologically, except to the extent that its conduct departs from rational norms.

- Q 1. According to the passage, internal conflicts are psychologically more interesting than external conflicts because

  - (a) internal conflicts, rather than external conflicts, form an important component of serious literature as distinguished from less serious genres.
  - (b) only juveniles or very few “adults” actually experience external conflict, while internal conflict is more widely prevalent in society.
  - (c) in situations of internal conflict, individuals experience a dilemma in resolving their own preferences for different outcomes.
  - (d) there are no threats to the reader (or viewer) in case of external conflicts.

Q 2. Which, according to the author, would qualify as interesting psychology?

  - (a) A statistician’s dilemma over choosing the best method to solve an optimisation problem.
  - (b) A chess player’s predicament over adopting a defensive strategy against an aggressive opponent.
  - (c) A mountaineer’s choice of the best path to Mt Everest from the base camp.
  - (d) A finance manager’s quandary over the best way of raising money from the market.

Q 3. According to the passage, which of the following options about the application of game theory to a conflict-of-interest situation is true?

  - (a) Assuming that the rank order of preferences for options is different for different players.
  - (b) Accepting that the interests of different players are often in conflict.
  - (c) Not assuming that the interests are in complete disagreement.
  - (d) All of the above

Q 4. The problem solving process of a scientist is different from that of a detective because

  - (a) scientists study inanimate objects, while detectives deal with living criminals or law offenders.

- (b) scientists study known objects, while detectives have to deal with unknown criminals or law offenders.
  - (c) scientists study phenomena that are not actively altered, while detectives deal with phenomena that have been deliberately influenced to mislead.
  - (d) scientists study psychologically interesting phenomena, while detectives deal with “adult” analogues of juvenile adventure tales.

**Direction for questions 5 to 7:** The sentences given in each question, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of sentences from among the given choices to construct a coherent paragraph.

- Q 5. A. Similarly, turning to caste, even though being lower caste is undoubtedly a separate cause of disparity, its impact is all the greater when the lower-caste families also happen to be poor.  
B. Belonging to a privileged class can help a woman to overcome many barriers that obstruct women from less thriving classes.  
C. It is the interactive presence of these two kinds of deprivation—being low class and being female—that massively impoverishes women from the less privileged classes.  
D. A congruence of class deprivation and gender discrimination can blight the lives of poorer women very severely.  
E. Gender is certainly a contributor to societal inequality, but it does not act independently of class.  
(a) EABDC      (b) EBDCA  
(c) DAEBC      (d) BECDA

Q 6. A. When identity is thus ‘defined by contrast’, divergence with the West becomes central.  
B. Indian religious literature such as the Bhagavad Gita or the Tantric texts, which are identified as differing from secular writings seen as ‘western’, elicits much greater interest in the West than do other Indian writings, including India’s long History of heterodoxy.  
C. There is a similar neglect of Indian writing on non-religious subjects, from Mathematics, Epistemology and natural Science to Economics and linguistics.  
D. Through selective emphasis that point up differences with the West, other civilizations can, in this way, be redefined in alien terms, which can be exotic and charming, or else bizarre and terrifying, or simply strange and engaging.  
E. The exception is the Kamasutra in which western readers have managed to cultivate an interest.  
(a) BDACE      (b) DEABC  
(c) BDECA      (d) BCEDA

Q 7. A. This is now orthodoxy to which I subscribe—up to a point.  
B. It emerged from the Mathematics of chance and statistics.

- C. Therefore, the risk is measurable and manageable.
- D. The fundamental concept: Prices are not predictable, but the Mathematical laws of chance can describe their fluctuations.
- E. This is how what business schools now call modern finance was born.
- (a) ADCBE      (b) EBDCA
- (c) ABDCE      (d) DCBEA

**Direction for questions 8 to 10:** In each question, the word at the top of the table is used in four different ways, numbered 1 to 4. Choose the option in which the usage of the word is incorrect or inappropriate.

Q 8. Near

(a)	I got there just after you left – near miss!
(b)	She and her near friend left early
(c)	The war led to an near doubling of oil prices
(d)	They came near to tears seeing the plight of the victims

Q 9. Hand

(a)	I have my hand full, I cannot do it today
(b)	The minister visited the jail to see the breach at first hand
(c)	The situation is getting out of hand there
(d)	When the roof of my house was blown away, he was willing to lend me a hand

Q 10. For

(a)	He has a great eye for detail
(b)	We are waiting for the day
(c)	I cannot bear for her to be angry
(d)	It could not be done for ever

Number of questions = 20

**Note: Questions 11 to 30 carry two marks each.**

**Direction for questions 11 to 18:** Each of the two passages given below is followed by a set of four questions. Choose the best answer to each question.

## PASSAGE I

Crinoline and croquet are out. As yet, no political activists have thrown themselves in front of the royal horse on Derby Day. Even so, some historians' can spot the parallels. It is a time of rapid technological change: It is a period when the dominance of the world's superpower is coming under threat. It is an epoch when prosperity masks underlying economic strain. And, crucially, it is a time when policy-makers are confident that all is for the best in the best of all

possible worlds. Welcome to the Edwardian Summer of the second age of globalisation.

Spare a moment to take stock of what's been happening in the past few months. Let's start with the oil price, which has rocketed to more than \$65 a barrel, more than double its level 18 months ago. The accepted wisdom is that we should not worry our little heads about that, because the incentives are there for business to build new production and refining capacity, which will effortlessly bring demand and supply back into balance and bring crude prices back to \$25 a barrel. As Tommy Cooper used to say, 'just like that'.

Then there is the result of the French referendum on the European Constitution, seen as thick-headed luddites railing vainly against the modern world. What the French needed to realize, the argument went, was that there was no alternative to the reforms that would make the country more flexible, more competitive, more dynamic. Just the sort of reforms that allowed Gate Gourmet to sack hundreds of its staff at Heathrow after the sort of ultimatum that used to be handed out by Victorian mill owners. An alternative way of looking at the French "non" is that our neighbours translate "flexibility" as "you're fired".

Finally, take a squint at the United States. Just like Britain a century ago, a period of unquestioned superiority is drawing to a close. China is still a long way from matching America's wealth, but it is growing at a stupendous rate and economic strength brings geo-political clout. Already, there is evidence of a new scramble for Africa as Washington and Beijing compete for oil stocks. Moreover, beneath the surface of the US economy, all is not well. Growth looks healthy enough, but the competition from China and elsewhere has meant the world's biggest economy now imports far more than it exports. The US is living beyond its means, but in this time of studied complacency a current account deficit worth 6 percent of gross domestic product is seen as a sign of strength not weakness.

In this new Edwardian summer, comfort is taken from the fact that dearer oil has not had the savage inflationary consequences of 1973-74, when a fourfold increase in the cost of crude brought an abrupt end to a postwar boom that had gone on uninterrupted for a quarter of a century. True, the cost of living has been affected by higher transport costs, but we are talking of inflation at 2.3 per cent and not 27 per cent. Yet the idea that higher oil prices are of little consequence is fanciful. If people are paying more to fill up their cars it leaves them with less to spend on everything else, but there is a reluctance to consume less. In the 1970s unions were strong and able to negotiate large, compensatory pay deals that served to intensify inflationary pressure. In 2005, that avenue is pretty much closed off, but the abolition of all the controls on credit that existed in the 1970s means that households are invited to borrow more rather than consume less. The knock-on effects of higher oil prices are thus felt in different ways—through high levels of indebtedness, in inflated asset prices, and in balance of payments deficits.

There are those who point out, rightly, that modern industrial capitalism has proved mightily resilient these past 250 years, and that a sign of the enduring strength of the system has been the way it apparently shrugged off

everything—a stock market crash, 9/11, rising oil prices—that have been thrown at it in the half decade since the millennium. Even so, there are at least three reasons for concern. First, we have been here before. In terms of political economy, the first era of globalisation mirrored our own. There was a belief in unfettered capital flows, in free trade, and in the power of the market. It was a time of massive income inequality and unprecedented migration. Eventually, though, there was a backlash, manifested in a struggle between free traders and protectionists, and in rising labour militancy.

Second, the world is traditionally at its most fragile at times when the global balance of power is in flux. By the end of the nineteenth century, Britain's role as the hegemonic power was being challenged by the rise of the United States, Germany, and Japan while the Ottoman and Hapsburg empires were clearly in rapid decline. Looking ahead from 2005, it is clear that over the next two or three decades, both China and India—which together account for half the world's population—will flex their muscles.

Finally, there is the question of what rising oil prices tell us. The emergence of China and India means global demand for crude is likely to remain high at a time when experts say production is about to top out. If supply constraints start to bite, any declines in the price are likely to be short-term cyclical affairs punctuating a long upward trend.

- Q 11. By the expression ‘Edwardian Summer’, the author refers to a period in which there is
- unparalleled luxury and opulence.
  - a sense of complacency among people because of all-round prosperity.
  - a culmination of all-round economic prosperity.
  - an imminent danger lurking behind economic prosperity.

- Q 12. What, according to the author, has resulted in a widespread belief in the resilience of modern capitalism?
- Growth in the economies of Western countries despite shocks in the form of increase in levels of indebtedness and inflated asset prices.
  - increase in the prosperity of Western countries and China despite rising oil prices.
  - Continued growth of Western economies despite a rise in terrorism, an increase in oil prices and other similar shocks.
  - The success of continued reforms aimed at making Western economies more dynamic, competitive and efficient.

- Q 13. Which of the following best represents the key argument made by the author?
- The rise in oil prices, the flux in the global balance of power and historical precedents should make us question our belief that the global economic prosperity would continue.
  - The belief that modern industrial capitalism is highly resilient and capable of overcoming shocks will be belied soon.

(c) Widespread prosperity leads to neglect of early signs of underlying economic weakness, manifested in higher oil prices and a flux in the global balance of power.

(d) A crisis is imminent in the West given the growth of countries like China and India and the increase in oil prices.

- Q 14. What can be inferred about the author's view when he states, ‘As Tommy Cooper used to say “just like that”’?

- Industry has incentive to build new production and refining capacity and therefore, oil prices would reduce.
- There would be a correction in the price levels of oil once new production capacity is added.
- The decline in oil prices is likely to be short-term in nature.
- It is not necessary that oil prices would go down to earlier levels.

## PASSAGE II

While complex in the extreme, Derrida's work has proven to be a particularly influential approach to the analysis of the ways in which language structures our understanding of ourselves and the world we inhabit, an approach, he termed *deconstruction*. In its simplest formulation deconstruction can be taken to refer to a methodological strategy which seeks to uncover layers of hidden meaning in a text that have been denied or suppressed. The term ‘text’, in this respect, does not refer simply to a written form of communication, however. Rather, texts are something we all produce and reproduce constantly in our everyday social relations, be they spoken, written or embedded in the construction of material artifacts. At the heart of Derrida's deconstructive approach is his critique of what he perceives to be the totalitarian, impulse of the Enlightenment pursuit to bring all that exists in the world under the domain of a representative language, a pursuit he refers to as *logocentrism*. Logocentrism is the search for a rational language that is able to know and represent the world and all its aspects perfectly and accurately. Its totalitarian dimension, for Derrida at least, lies primarily in its tendency to marginalize or dismiss all that does not neatly comply with its particular linguistic representations, a tendency that, throughout history, has all too frequently been manifested in the form of authoritarian institutions. Thus logocentrism has, in its search for the truth of absolute representation, subsumed difference and oppressed that which it designates as its alien ‘other’. For Derrida, western civilization has been built upon such a systematic assault on alien cultures and ways of life, typically in the name of reason and progress.

In response to logocentrism, deconstruction posits the idea that the mechanism by which this process of marginalization and the ordering of truth occurs is through establishing systems of binary opposition. Oppositional linguistic dualisms, such as rational/irrational, culture/nature and good/bad are not, however, construed as equal partners as they are in, say, the semiological structuralism of Saussure. Rather, they exist, for

Derrida, in a series of hierarchical relationships with the first terms normally occupying a superior position. Derrida defines the relationship between such oppositional terms using the neologism *difference*.

This refers to the realization that in any statement, oppositional terms differ from each other (for instance, the difference between rationality and irrationality is constructed through oppositional usage), and at the same time, a hierarchical relationship is maintained by the deference of one term to the other (in the positing of rationality over irrationality, for instance). It is this latter point which is perhaps the key to understanding Derrida's approach to deconstruction.

For the fact that at any given time one term must defer to its oppositional 'other', means that the two terms are constantly in a state of interdependence. The presence of one is dependent upon the absence or 'absent-presence' of the 'other', such as in the case of good and evil, whereby to understand the nature of one, we must constantly relate it to the absent term in order to grasp its meaning. That is, to do good, we must understand that our act is not evil for without that comparison the term becomes meaningless. Put simply, deconstruction represents an attempt to demonstrate the absent-presence of this oppositional 'other', to show that what we say or write is in itself not expressive simply of what is present, but also of what is absent. Thus, deconstruction seeks to reveal the interdependence of apparently dichotomous terms and their meanings relative to their textual context; that is, within the linguistic power relations which structure dichotomous terms hierarchically. In Derrida's own words, a deconstructive reading "must always aim at a certain relationship, unperceived by the writer, between what he commands and what he does not command of the patterns of a language that he uses. . . [It] attempts to make the not-seen accessible to sight."

Meaning, then, is never fixed or stable, whatever the intention of the author of a text. For Derrida, language is a system of relations that are dynamic, in that all meanings we ascribe to the world are dependent not only on what we believe to be present but also on what is absent. Thus, any act of interpretation must refer not only to what the author of a text intends, but also to what is absent from his or her intention. This insight leads, once again, to Derrida's further rejection of the idea of the definitive authority of the intentional agent or subject. The subject is decentred; it is conceived as the outcome of relations of *différance*. As author of its own biography, the subject thus becomes the ideological fiction of modernity and its logocentric philosophy, one that depends upon the formation of hierarchical dualisms, which repress and deny the presence of the absent 'other'. No meaning can, therefore, ever be definitive, but is merely an outcome of a particular interpretation.

**Q 15.** According to the passage, Derrida believes that:

- (a) reality can be construed only through the use of rational analysis.
- (b) language limits our construction of reality.
- (c) a universal language will facilitate a common understanding of reality.
- (d) we need to uncover the hidden meaning in a system of relations expressed by language.

**Q 16.** To Derrida, 'logocentrism' does not imply:

- (a) A totalitarian impulse.
- (b) A domain of representative language.
- (c) Interdependence of the meanings of dichotomous terms.
- (d) A strategy that seeks to suppress hidden meanings in a text.

**Q 17.** According to the passage, Derrida believes that the system of binary opposition:

- (a) represents a prioritization or hierarchy.
- (b) reconciles contradictions and dualities.
- (c) weakens the process of marginalization and ordering of truth.
- (d) deconstructs reality.

**Q 18.** Derrida rejects the idea of 'definitive authority of the subject' because:

- (a) interpretation of the text may not make the unseen visible.
- (b) the meaning of the text is based on binary opposites.
- (c) the implicit power relationship is often ignored.
- (d) any act of interpretation must refer to what the author intends.

**Direction for questions 19 to 22:** *Each of the following questions has a paragraph from which the last sentence has been deleted. From the given options, choose the one that completes the paragraph in the most appropriate way.*

**Q 19.** The audiences for crosswords and sudoku, understandably, overlap greatly, but there are differences, too. A crossword attracts a more literary person, while sudoku appeals to a keenly logical mind. Some crossword enthusiasts turn up their noses at sudoku because they feel it lacks depth. A good crossword requires vocabulary, knowledge, mental flexibility and sometimes even a sense of humor to complete. It touches numerous areas of life and provides an "Aha!" or two along the way.

- (a) Sudoku, on the other hand, is just a logical exercise, each one similar to the last.
- (b) Sudoku, incidentally, is growing faster in popularity than crosswords, even among the literati.
- (c) Sudoku, on the other hand, can be attempted and enjoyed even by children.
- (d) Sudoku, however, is not exciting in any sense of the term.

**Q 20.** Most firms consider expert individuals to be too elitist, temperamental, egocentric, and difficult to work with. Force such people to collaborate on a high-stakes project and they just might come to fisticuffs. Even the very notion of managing such a group seems unimaginable. So most organizations fall into default mode, setting up project teams of people who get along nicely.

- (a) The result, however, is disastrous.
- (b) The result is mediocrity.

- (c) The result is creation of experts who then become elitists.  
 (d) Naturally, they drive innovations.
- Q 21. Federer's fifth grand slam win prompted a reporter to ask whether he was the best ever. Federer is certainly not lacking in confidence, but he was not about to proclaim himself the best ever. "The best player of this generation, yes", he said, "But nowhere close to ever. Just look at the records that some guys have. I'm a minnow."  
 (a) His win against Agassi, a genius from the previous generation, contradicts that.  
 (b) Sampras, the king of an earlier generation, was as humble.  
 (c) He is more than a minnow to his contemporaries.  
 (d) The difference between 'the best of this generation' and 'the best ever' is a matter of perception.
- Q 22. Thus the end of knowledge and the closing of the frontier that it symbolizes is not a looming crisis at all, but merely one of many embarrassing fits of hubris in civilization's long industry. In the end, it will pass away and be forgotten. Ours is not the first generation to struggle to understand the organizational laws of the frontier, deceive itself that it has succeeded, and go to its grave having failed.  
 (a) One would be wise to be humble.  
 (b) But we might be the first generation to actually reach the frontier.  
 (c) But we might be the first generation to deal with the crisis.  
 (d) However, this time the success is not illusory.
- Direction for questions 23 to 26:** Each question consists of four sentences on a topic. Some sentences are grammatically incorrect or inappropriate. Select the option that indicates the grammatically correct and appropriate sentence(s).
- Q 23. A. When virtuoso teams begin their work, individuals are in and group consensus is out.  
 B. As project progresses, however, the individual stars harness themselves to the product of the group.  
 C. Sooner or later, the members break through their own egocentrism and become a plurality with single-minded focus on the goal.  
 D. In short, they morph into a powerful team with a shared identity.  
 (a) A and C  
 (b) A and D  
 (c) B and D  
 (d) A, C and D
- Q 24. A. Large reductions in the ozone layer, which sits about 15–30 km above the Earth, take place each winter over the polar regions, especially the Antarctic, as low temperatures allow the formation of stratospheric clouds that assist chemical reactions breaking down ozone.  
 B. Industrial chemicals containing chlorine and bromine have been blamed for thinning the layer because they attack the ozone molecules, making them to break apart.  
 C. Many an offending chemicals have now been banned.  
 D. It will still take several decades before these substances have disappeared from the atmosphere.  
 (a) Only D                   (b) B and D  
 (c) A and D                   (d) A and C
- Q 25. A. The balance of power will shift to the East as China and India evolve.  
 B. Rarely the economic ascent of two still relatively poor nations has been watched with such a mixture of awe, opportunism, and trepidation.  
 C. Postwar era witnessed economic miracles in Japan and South Korea, but neither was populous enough to power worldwide growth or change the game in a complete spectrum of industries.  
 D. China and India, by contrast, possess the weight and dynamism to transform the 21st-century global economy.  
 (a) A, B and C  
 (b) A and D  
 (c) Only C  
 (d) C and D
- Q 26. A. People have good reason to care about the welfare of animals.  
 B. Ever since Enlightenment, their treatment has been seen as a measure of mankind's humanity.  
 C. It is no coincidence that William Wilberforce and Sir Thomas Foxwell Buxton, two leaders of the movement to abolish the slave trade, helped found the Royal Society for the Prevention of Cruelty to Animals in 1820s.  
 D. An increasing number of people go further: mankind has a duty not to cause pain to animals that have the capacity to suffer.  
 (a) A and D                   (b) B  
 (c) A and C                   (d) C and D
- Direction for questions 27 to 30:** Each of the following questions has a paragraph with one italicized word that does not make sense. Choose the most appropriate replacement for that word from the options given below the paragraph.
- Q 27. Intelligent design derives from an early 19th-century explanation of the natural world given by an English clergyman, William Paley. Paley was the popularizer of the famous watchmaker analogy. Proponents of intelligent design are *crapping* Paley's argument with a new gloss from molecular biology.  
 (a) destroying  
 (b) testing  
 (c) resurrecting  
 (d) questioning

Q 28. Women squat, heads covered, beside huge piles of limp fodder and *blunk* oil lamps, and just about all the cows in the three towns converge upon this spot. Sinners, supplicants and yes, even scallywags hand over a few coins for a crack at redemption and a handful of grass.

(a) shining      (b) bright  
(c) sputtering    (d) effulgent

Q 29. It is *klang* to a sensitive traveller who walks through this great town, when he sees the streets, the roads, and cabin doors crowded with beggars, mostly women,

followed by three, four, or six children, all in rags and importuning every passenger for alms.

- (a) amusing      (b) irritating  
(c) disgusting    (d) distressing

Q 30. Or there is the most *fingummy* diplomatic note on record: when Philip of Macedon wrote to the Spartans that, if he came within their borders, he would leave not one stone of their city, they wrote back the one word—"If".

(a) witty      (b) rude  
(c) simple      (d) terse cat 2005 verbal ability

# ANSWERS



## SECTION 1—VERBAL ABILITY

Q. No.	Answer						
1	(c)	2	(b)	3	(d)	4	(c)
5	(b)	6	(d)	7	(b)	8	(b)
9	(a)	10	(c)	11	(d)	12	(c)
13	(a)	14	(d)	15	(d)	16	(c)
17	(a)	18	(a)	19	(a)	20	(b)
21	(b)	22	(b)	23	(b)	24	(c)
25	(b)	26	(a)	27	(c)	28	(c)
29	(d)	30	(d)				

## HINTS AND EXPLANATIONS

### SECTION 1—VERBAL ABILITY



- (c) Option (c) is the answer as it explains why it is more interesting with respect to the priority concept in game theory. Option (a) is too narrow in scope. Option (b) is irrelevant. Option (d) is contradictory to what is given.
- (b) Option (b) is the answer. In all the other options there are inanimate objects involved, which do not change. Therefore, only playing chess with human beings is interesting.
- (d) Option (d) is the answer, since statements 1, 2 and 3 are all given in the first paragraph.
- (c) Option (c) is the answer. In the fourth paragraph it says that there is a genuine conflict when an adversary puts obstacles in the path of the detective. Option (c) mentions that the criminal is misleading the detective.
- (b) Option (b) is the answer. E is an introductory statement about gender and class. Statements B, D and C elaborate this idea. Statement A talks of caste, which is an entirely new topic (caste and class); it cannot follow E.
- (d) Option (d) is the answer. Statements B, C and E are linked because they all talk about that kind of Indian literature that elicits interest in the West and also that type which is ignored. Statements D and A are linked. Statement D says that other civilisations are looked at in terms of how they are different from the West.

Statement A continues along similar lines of identity that is ‘defined by contrast.’

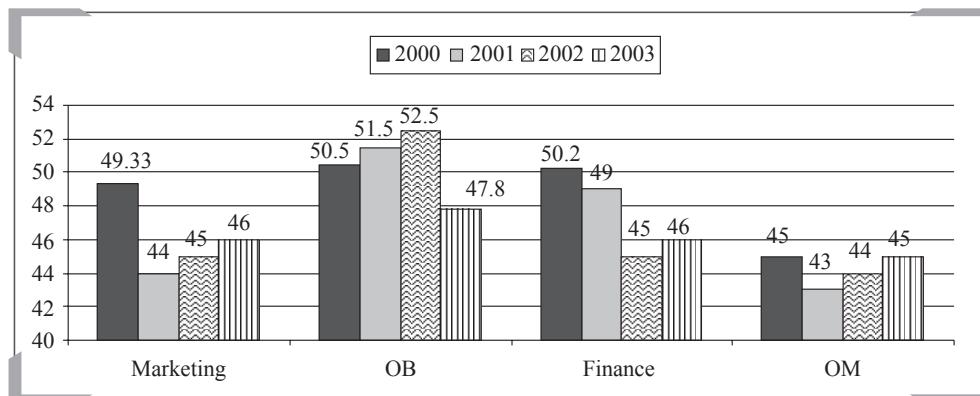
- (b) Option (b) is the answer. Statement B talks about something that emerged from the Mathematics of Chance and Statistics. This should be followed by D which states the fundamental concept based on statement B. Clearly statement C follows because it is a cause-effect relation between options (b) and (c). Statement E can function as an introduction, whereas statement A takes a subjective approach and has to come at the end.
- (b) Option (b) is the answer. ‘Near friend’ is incorrect usage. It should be replaced with ‘a close friend.’
- (a) Option (a) is the answer. ‘Hand full’ should be replaced with ‘Hands full,’ which is the correct idiomatic format.
- (c) Option (c) is the answer. The word ‘for’ is redundant. The statement could be rephrased as ‘I cannot bear to see her angry.’
- (d) Option (d) is the answer because it brings out the hidden meaning that the global economy has suffered and is only deteriorating, and warns us of the imminent danger that lurks behind the short-lived economic prosperity. Option (a) only speaks of the prosperity, but fails to see the true meaning behind the passage. Option (b) talks of complacency. Complacency is not the right word to be used here; it is a neglect and over-confidence. Option (c) again speaks only of prosperity.

12. (c) Option (c) is the answer, as it is specific and to the point. This is a specific detail question. The answer can be found in the 6th paragraph.
13. (a) Option (a) is the answer because the passage specifically gives us reasons to doubt the supposed prosperity evident in both the ages of globalization. Option (b) is far-fetched. Option (c) becomes specific to oil prices in relation to global power, and statement 4 is extreme where a crisis would necessarily follow, and we do not have enough information to make such an assumption.
14. (d) Option (d) is the answer, which can be inferred from the second paragraph. Statement 1, 2 and 3 are far-fetched, and therefore, inappropriate.
15. (d) Option (d) is the answer. Option (a) mentions logic is the only way through which reality can be constructed. This contradicts the passage. Option (b) has not been mentioned at all in the entire passage. Option (c) states the belief of logo-centrism, which is different from Derrida's point of view. Therefore, this too is irrelevant to the question.
16. (c) Option (c) is the answer. Refer to paragraph 1. Options (a), (b) and (d) are provided throughout the paragraph.
17. (a) Option (a) is the answer which can be found in the second paragraph.
18. (a) Option (a) is the answer. It is derived from the last paragraph of the passage. The entire paragraph talks about the meaning of the text, which is never fixed and is always changing, according to the reader. The only clear clue is in the 3rd line of the paragraph.
19. (a) Option (a) is the answer. The paragraph, in the beginning, highlights the main points of difference between Sudoku and a crossword. Therefore, we are looking for a contrast, which is not present in options (b) and (d). Option (c) is too specific, which is why we pick Option (a).
20. (b) Option (b) is the answer. The paragraph begins by pointing out the difficulties of the expert individual. Towards the end it mentions a compromise that organizations come up with, which is the setting up of teams of people who get along. Hence a sentence that follows would be a conclusion of sorts, which is present in options (a), (b) and (c). Option (c) can be eliminated, as the experts are already considered elitists. Also, we have no reason to believe that such a measure would bring about disastrous results. Hence, option (a) can be eliminated. However, mediocrity is an outcome that can be expected, which is why we pick Option (b) as the answer.
21. (b) Option (b) is the answer. Federer made a very humble statement, so 2 is the most appropriate. 3 is clearly wrong as he said that he is the best of this generation.
22. (b) It is the most appropriate choice. Option (c) is wrong as ours is not the first generation to deal with the crisis, others have also dealt with it. 2 is correct as we might be the first generation to succeed. 1 does not make any sense. 4 is wrong as success was not illusory earlier as well.
23. (b) Option (b) is the answer. Statement B should say "As THE project...". Statement C should be "...plurality with A single-minded focus."
24. (c) Option (c) is the answer. B is wrong as chlorine and bromine (chemicals) can not be blamed but held responsible. C is wrong because of the wrong usage of the adjective offending with chemicals.
25. (b) Option (b) is the answer. Statement B should be "rarely HAS the economic..." and "has" should be deleted from its existing position in the statement. Statement C should begin with the definite article "THE." Also, it should be "NOR change the game..."
26. (a) Option (a) is the answer. In statement B, "their treatment" should be replaced with "the treatment meted out to them," as we are talking about the way people treat animals. In statement C, "in 1820s" is incorrect usage; either use "in THE 1820s" or "in 1820."
27. (c) Option (c) is the answer. Refer to the word 'proponents,' which means a person advocating a motion, theory or proposal. To resurrect would mean to revive something. The proponents have revived a 19th century explanation and provided further details. Option (a) has a negative connotation. Option (b) is irrelevant since the theory has already been established. Finally, option (d) indicates doubt.
28. (c) Option (c) is the answer. In the opening line of the first sentence, the tone (i.e., negative) of blunk oil lamps is similar to lamp fodder (useless). So it can not mean shining, bright or effulgent (shining) and the correct option is sputtering (burning or working in and uneven way).
29. (d) Option (d) is the answer. Refer to the phrase 'sensitive traveller,' which implies that the traveller is saddened and uneasy with the prevailing situation. Amusing is irrelevant to the context. Irritating and disgusting would indicate impatience and annoyance, which is not conveyed in the passage.
30. (d) Option (d) is the answer. Here the passage ends with a single word 'If,' indicating the concise nature of the note. Hence 'terse' which means brief, abrupt and curt, is the right answer. Witty has an element of humour accompanied by intelligence. Rude implies something offensive, which contradicts the 'diplomatic note.' Simple is too vague.

## ➤ SECTION 2—LOGICAL REASONING

**Direction for questions 1 to 4:** Answer the following questions on the basis of the information given below:

A management institute was established on January 1, 2000 with 3, 4, 5, and 6 faculty members in the Marketing, Organisational Behaviour (OB), Finance, and Operations Management (OM) areas respectively, to start with. No faculty member retired or joined the institute in the first three months of the year 2000. In the next four years, the institute recruited one faculty member in each of the four areas. All these new faculty members, who joined the institute subsequently over the years, were 25 years old at the time of their joining the institute. All of them joined the institute on April 1. During these four years, one of the faculty members retired at the age of 60. The following diagram gives the area-wise average age (in terms of number of completed years) of faculty members as on April 1 of 2000, 2001, 2002, and 2003.



- Q 1. From which area did the faculty member retire?  
 (a) Finance      (b) Marketing      (c) OB      (d) OM
- Q 2. Professors Naresh and Devesh, two faculty members in the Marketing area, who have been with the Institute since its inception, share a birthday, which falls on 20th November. One was born in 1947 and the other one in 1950. On April 1 2005, what was the age of the third faculty member, who has been in the same area since inception?  
 (a) 47      (b) 50      (c) 51      (d) 52
- Q 3. In which year did the new faculty member join the Finance area?  
 (a) 2000      (b) 2001      (c) 2002      (d) 2003
- Q 4. What was the age of the new faculty member, who joined the OM area, as on April 1, 2003?  
 (a) 1.25      (b) 26      (c) 27      (d) 28

**Direction for questions 5 to 7:** Answer the following questions on the basis of the information given below:

The table below reports annual statistics related to rice production in select states of India for a particular year.

State	Total Area (in million hectares)	% of Area Under Rice Cultivation	Production (in million tons)	Population (in millions)
Himachal Pradesh	6	20	1.2	6
Kerala	4	60	4.8	32
Rajasthan	34	20	6.8	56
Bihar	10	60	12	83
Karnataka	19	50	19	53
Haryana	4	80	19.2	21

<i>State</i>	<i>Total Area (in million hectares)</i>	<i>% of Area Under Rice Cultivation</i>	<i>Production (in million tons)</i>	<i>Population (in millions)</i>
West Bengal	9	80	21.6	80
Gujarat	20	60	24	51
Punjab	5	80	24	24
Madhya Pradesh	31	40	24.8	60
Tamil Nadu	13	70	27.3	62
Maharashtra	31	50	48	97
Uttar Pradesh	24	70	67.2	166
Andhra Pradesh	28	80	112	76



**Direction for questions 8 to 10:** Answer the following questions on the basis of the information given below:

The table below reports the gender, designation and age-group of the employees in an organization. It also provides information on their commitment to projects coming up in the months of January (Jan), February (Feb), March (Mar) and April (Apr), as well as their interest in attending workshops on: Business Opportunities (BO), Communication Skills (CS), and E-Governance (EG).

<i>S. No.</i>	<i>Name</i>	<i>Gender</i>	<i>Designation</i>	<i>Age group</i>	<i>Committed to projects during</i>	<i>Interested in workshop on</i>
1	Anshul	M	Mgr	Y	Jan, Mar	CS, EG
2	Bushkant	M	Dir	I	Feb, Mar	BO, EG
3	Charu	F	Mgr	I	Jan, Feb	BO, CS
4	Dinesh	M	Exe	O	Jan, Apr	BO, CS, EG
5	Eashwaran	M	Dir	O	Feb, Apr	BO
6	Fatima	F	Mgr	Y	Jan, Mar	BO, CS
7	Gayatri	F	Exe	Y	Feb, Mar	EG
8	Hari	M	Mgr	I	Feb, Mar	BO, CS, EG
9	Indira	F	Dir	O	Feb, Apr	BO, EG
10	John	M	Dir	Y	Jan, Mar	BO

S. No.	Name	Gender	Designation	Age group	Committed to projects during	Interested in workshop on
11	Kalindi	F	Exe	I	Jan, Apr	BO, CS, EG
12	Lavanya	F	Mgr	O	Feb, Apr	CS, EG
13	Mandeep	M	Mgr	O	Mar, Apr	BO, EG
14	Nandlal	M	Dir	I	Jan, Feb	BO, EG
15	Parul	F	Exe	Y	Feb, Apr	CS, EG
16	Rahul	M	Mgr	Y	Mar, Apr	CS, EG
17	Sunita	F	Dir	Y	Jan, Feb	BO, EG
18	Urvashi	F	Exe	I	Feb, Mar	EG
19	Yamini	F	Mgr	O	Mar, Apr	CS, EG
20	Zeena	F	Exe	Y	Jan, Mar	BO, CS, EG

M = Male, F = Female; Exe = Executive, Mgr = Manager, Dir = Director;

Y = Young, I = In-between, O = Old.

For each workshop, exactly four employees are to be sent, of which at least two should be Females and at least one should be Young. No employee can be sent to a workshop in which he/she is not interested in. An employee cannot attend the workshop on:

Communication Skills, if he/she is committed to internal projects in the month of January.

Business Opportunities, if he/she is committed to internal projects in the month of February.

E-governance, if he/she is committed to internal projects in the month of March.

Q 8. Assuming that Parul and Hari are attending the workshop on Communication Skills (CS), then which of the following employees can possibly attend the CS workshop?

- (a) Rahul and Yamini
- (b) Dinesh and Lavanya
- (c) Anshul and Yamini
- (d) Fatima and Zeena

Q 9. How many Executives (Exe) cannot attend more than one workshop?

- (a) 2
- (b) 3
- (c) 15
- (d) 16

Q 10. Which set of employees cannot attend any of the workshops?

- (a) Anshul, Charu, Eashwaran and Lavanya
- (b) Anshul, Bushkant, Gayatri, and Urvashi
- (c) Charu, Urvashi, Bushkant and Mandeep
- (d) Anshul, Gayatri, Eashwaran and Mandeep

Note: Questions 11 to 30 carry two marks each.

**Direction for questions 11 to 14: Answer the following questions on the basis of the information given below.**

In the table below is the listing of players, seeded from highest (#1) to lowest (#32), who are due to play in an Association of Tennis Players (ATP) tournament for women. This tournament has four knockout rounds before the final, i.e., first round, second round, quarterfinals, and semi-finals. In the first round, the highest seeded player plays the lowest seeded player (seed # 32) which is designated match number 1 of first round; the 2nd seeded player plays the 31st seeded player which is designated match number 2 of the first round, and so on. Thus, for instance, match number 16 of first round is to be played between 16th seeded player and the 17th seeded player. In the second round, the winner of match number 1 of first round plays the winner of match number 16 of first round and is designated match number 1 of second round. Similarly, the winner of match number 2 of first round plays the winner of match number 15 of first round, and is designated match number 2 of second round. Thus, for instance, match number 8 of the second round is to be played between the winner of match number 8 of first round and the winner of match number 9 of first round. The same pattern is followed for later rounds as well.

<i>Seed #</i>	<i>Name of Player</i>	<i>Seed #</i>	<i>Name of Player</i>	<i>Seed #</i>	<i>Name of Player</i>
1	Maria Sharapova	12	Mary Pierce	23	Silvia Farina Elia
2	Lindsay Davenport	13	Anastasia Myskina	24	Tatiana Golovin
3	Amelie Mauresmo	14	Alicia Molik	25	Shinobu Asagoe
4	Kim Clijsters	15	Nathalie Dechy	26	Francesca Schiavone
5	Svetlana Kuznetsova	16	Elena Bovina	27	Nicole Vaidisova
6	Elena Dementieva	17	Jelena Jankovic	28	Gisela Dulko
7	Justine Henin	18	Ana Ivanovic	29	Flavia Pennetta
8	Serena Williams	19	Vera Zvonareva	30	Anna Chakvetadze
9	Nadia Petrova	20	Elena Likhovtseva	31	Ai Sugiyama
10	Venus Williams	21	Daniela Hantuchova	32	Anna-lena Groenefeld
11	Patty Schnyder	22	Dinara Safina		

- Q 11. If there are no upsets (a lower seeded player beating a higher seeded player) in the first round, and only match numbers 6, 7, and 8 of the second round result in upsets, then who would meet Lindsay Davenport in quarter finals, in case Davenport reaches quarter finals?  
 (a) Justine Henin (b) Nadia Petrova (c) Patty Schnyder (d) Venus Williams
- Q 12. If Elena Dementieva and Serena Williams lose in the second round, while Justine Henin and Nadia Petrova make it to the semi-finals, then who would play Maria Sharapova in the quarterfinals, in the event Sharapova reaches quarterfinals?  
 (a) Dinara Safina (b) Justine Henin (c) Nadia Petrova (d) Patty Schnyder
- Q 13. If, in the first round, all even numbered matches (and none of the odd numbered ones) result in upsets, and there are no upsets in the second round, then who could be the lowest seeded player facing Maria Sharapova in semi-finals?  
 (a) Anastasia Myskina (b) Flavia Pennetta  
 (c) Nadia Petrova (d) Svetlana Kuznetsova
- Q 14. If the top eight seeds make it to the quarterfinals, then who, amongst the players listed below, would definitely not play against Maria Sharapova in the final, in case Sharapova reaches the final?  
 (a) Amelie Mauresmo (b) Elena Dementieva  
 (c) Kim Clijsters (d) Lindsay Davenport

**Direction for questions 15 to 18: Answer to following questions on the basis of the information given below.**

Venkat, a stockbroker, invested a part of his money in the stock of four companies—A, B, C and D. Each of these companies belonged to different industries, viz., Cement, Information Technology (IT), Auto, and Steel, in no particular order. At the time of investment, the price of each stock was Rs 100. Venkat purchased only one stock of each of these companies. He was expecting returns of 20%, 10%, 30%, and 40% from the stock of companies A, B, C and D, respectively. Returns are defined as the change in the value of the stock after one year, expressed as a percentage of the initial value. During the year, two of these companies announced extraordinarily good results. One of these two companies belonged to the Cement or the IT industry, while the other one belonged to either the Steel or the Auto industry. As a result, the returns on the stocks of these two companies were higher than the initially expected returns. For the company belonging to the Cement or the IT industry with extraordinarily good results, the returns were twice that of the initially expected returns. For the company belonging to the Steel or the Auto industry, the returns on announcement of extraordinarily good results were only one and a half times that of the initially expected returns. For the remaining two companies, which did not announce extraordinarily good results, the returns realized during the year were the same as initially expected.

- Q 15. What is the minimum average return Venkat would have earned during the year?

- (a) 30% (b)  $31\frac{1}{4}\%$  (c)  $32\frac{1}{2}\%$  (d) Cannot be determined

Q 16. If Venkat earned a 35% return on average during the year, then which of these statements would necessarily be true?

- I. Company A belonged either to Auto or to Steel Industry.
  - II. Company B did not announce extraordinarily good results.
  - III. Company A announced extraordinarily good results.
  - IV. Company D did not announce extraordinarily good results.
- (a) I and II only    (b) II and III only    (c) III and IV only    (d) II and IV only

Q 17. If Venkat earned a 38.75% return on average during the year, then which of these statement(s) would necessarily be true?

- I. Company C belonged either to Auto or to Steel Industry.
  - II. Company D belonged either to Auto or to Steel Industry.
  - III. Company A announced extraordinarily good results.
  - IV. Company B did not announce extraordinarily good results.
- (a) I and II only    (b) II and III only    (c) I and IV only    (d) II and IV only

Q 18. If Company C belonged to the Cement or the IT industry and did announce extraordinarily good results, then which of these statement(s) would necessarily be true?

- I. Venkat earned not more than 36.25% return on average.
  - II. Venkat earned not less than 33.75% return on average.
  - III. If Venkat earned 33.75% return on average, Company A announced extraordinarily good results.
  - IV. If Venkat earned 33.75% return on average, Company B belonged either to Auto or to Steel Industry.
- (a) I and II only    (b) II and IV only    (c) II and III only    (d) III and IV only

**Direction for questions 19 to 22: Answer the following questions on the basis of the information given below.**

The year is 2089. Beijing, London, New York, and Paris are in contention to host the 2096 Olympics. The eventual winner is determined through several rounds of voting by members of the IOC with each member representing a different city. All the four cities in contention are also represented in IOC.

1. In any round of voting, the city receiving the lowest number of votes in that round gets eliminated. The survivor after the last round of voting gets to host the event.
2. A member is allowed to cast votes for at most two different cities in all rounds of voting combined. (Hence, a member becomes ineligible to cast a vote in a given round if both the cities (s)he voted for in earlier rounds are out of contention in that round of voting.)
3. A member is also ineligible to cast a vote in a round if the city (s)he represents is in contention in that round of voting.
4. As long as the member is eligible, (s)he must vote and vote for only one candidate city in any round of voting.

The following incomplete table shows the information on cities that received the maximum and minimum votes in different rounds, the number of votes cast in their favour, and the total votes that were cast in those rounds.

<i>Round</i>	<i>Total votes cast</i>	<i>Maximum votes cast</i>		<i>Eliminated</i>	
		<i>City</i>	<i>Number of Votes</i>	<i>City</i>	<i>Number of Votes</i>
1		London	30	New York	12
2	83	Paris	32	Beijing	21
3	75				

It is also known that:

- All those who voted for London and Paris in round 1, continued to vote for the same cities in subsequent rounds as long as these cities were in contention. 75% of those who voted for Beijing in round 1, voted for Beijing in round 2 as well.
- Those who voted for New York in round 1, voted either for Beijing or Paris in round 2.
- The difference in votes cast for the two contending cities in the last round was 1.
- 50% of those who voted for Beijing in round 1, voted for Paris in round 3.

Q 19. What percentage of members from among those who voted for New York in round 1, voted for Beijing in round 2?

- (a) 33.33    (b) 50    (c) 66.67    (d) 75

Q 20. What is the number of votes cast for Paris in round 1?

- (a) 16    (b) 18    (c) 22    (d) 24

- Q 21. What percentage of members from among those who voted for Beijing in round 2 and were eligible to vote in round 3, voted for London?

(a) 33.33            (b) 38.10            (c) 50            (d) 66.67

Q 22. Which of the following statements must be true?

(1) IOC member from New York must have voted for Paris in round 2.  
(2) IOC member from Beijing voted for London in round 3.

(a) Only 1            (b) Only 2            (c) Both 1 and 2            (d) Neither 1 nor 2

**Direction for questions 23 to 26:** Answer the following questions on the basis of the information given below.

The table below presents the revenue (in million rupees) of four firms in three states. These firms, Honest Ltd, Aggressive Ltd, Truthful Ltd, and Profitable Ltd are disguised in the table as A, B, C and D, in no particular order.

<i>States</i>	<i>Firm A</i>	<i>Firm B</i>	<i>Firm C</i>	<i>Firm D</i>
UP	49	82	80	55
Bihar	69	72	70	65
MP	72	63	72	65

Further, it is known that:

- In the state of MP, Truthful Ltd has the highest market share.
  - Aggressive Ltd's aggregate revenue differs from Honest Ltd's by Rs 5 million.

- Q 23. What can be said regarding the following two statements?

Statement 1: Profitable Ltd has the lowest share in MP market.

Statement 2: Honest Ltd's total revenue is more than Profitable Ltd.

- (a) If Statement 1 is true then Statement 2 is necessarily true.
  - (b) If Statement 1 is true then Statement 2 is necessarily false.
  - (c) Both Statement 1 and Statement 2 are true.
  - (d) Neither Statement 1 nor Statement 2 is true.

- Q 24. What can be said regarding the following two statements?

Statement 1: Aggressive Ltd's lowest revenues are from MP.

Statement 2: Honest Ltd's lowest revenues are from Bihar.

- (a) If Statement 2 is true then Statement 1 is necessarily false.
  - (b) If Statement 1 is false then Statement 2 is necessarily true.
  - (c) If Statement 1 is true then Statement 2 is necessarily true.
  - (d) None of the above

- Q 25. What can be said regarding the following two statements?

What can be said regarding the following two statements?

Statement 2: Aggressive Ltd has the highest share in the Bihar market.



- Q 26. If Profitable Ltd's lowest revenue is from UP, then which of the following is true?

- (a) Truthful Ltd's lowest revenues are from MP.  
 (b) Truthful Ltd's lowest revenues are from Bihar.  
 (c) Truthful Ltd's lowest revenues are from UP.  
 (d) No definite conclusion is possible.

**Direction for questions 27 to 30:** Answer the following questions on the basis of the information given below.

Help Distress (HD) is an NGO involved in providing assistance to people suffering from natural disasters. Currently, it has 37 volunteers. They are involved in three projects: Tsunami Relief (TR) in Tamil Nadu, Flood Relief (FR) in Maharashtra, and Earthquake Relief (ER) in Gujarat. Each volunteer working with Help Distress has to be involved in at least one relief work project.

- A maximum number of volunteers are involved in the FR project. Among them, the number of volunteers involved in FR project alone is equal to the volunteers having additional involvement in the ER project.
  - The number of volunteers involved in the ER project alone is double the number of volunteers involved in all the three projects.
  - 17 volunteers are involved in the TR project.
  - The number of volunteers involved in the TR project alone is one less than the number of volunteers involved in ER project alone.
  - Ten volunteers involved in the TR project are also involved in at least one more project.

Q 27. Based on the information given above, the minimum number of volunteers involved in both FR and TR projects, but not in the ER project is

- (a) 1      (b) 3      (c) 4      (d) 5

Q 28. Which of the following additional information would enable to find the exact number of volunteers involved in various projects?

- (a) Twenty volunteers are involved in FR.
  - (b) Four volunteers are involved in all the three projects.
  - (c) Twenty three volunteers are involved in exactly one project.
  - (d) No need for any additional information.

Q 29. After some time, the volunteers who were involved in all the three projects were asked to withdraw from one project. As a result, one of the volunteers opted out of the TR project, and one opted out of the ER project, while the remaining ones involved in all the three projects opted out of the FR project. Which of the following statements, then, necessarily follows?  
(a) The lowest number of volunteers is now in TR project.

- (a) The lowest number of volunteers is now in TR project.
  - (b) More volunteers are now in FR project as compared to ER project.
  - (c) More volunteers are now in TR project as compared to ER project.
  - (d) None of the above

Q 30. After the withdrawal of volunteers, as indicated in *Question 89*, some new volunteers joined the NGO. Each one of them was allotted only one project in a manner such that, the number of volunteers working in one project alone for each of the three projects became identical. At that point, it was also found that the number of volunteers involved in FR and ER projects was the same as the number of volunteers involved in TR and ER projects. Which of the projects now has the highest number of volunteers?

# ANSWERS



## ◀ SECTION 2—LOGICAL REASONING

Q. No.	Answer						
1	(a)	2	(d)	3	(c)	4	(c)
5	(a)	6	(b)	7	(d)	8	(a)
9	(b)	10	(b)	11	(d)	12	(c)
13	(a)	14	(c)	15	(a)	16	(b)
17	(c)	18	(b)	19	(d)	20	(d)
21	(d)	22	(a)	23	(b)	24	(c)
25	(c)	26	(c)	27	(b)	28	(c)
29	(c)	30	(d)				

# HINTS AND EXPLANATIONS

## ◀ SECTION 2—LOGICAL REASONING



### **Solution to Q1 to 18:**

- (a) There are two dips in the Finance only. Hence, Finance is the area where the professor retired from. Hence, option (a) is the answer.
- (d) Age of Prof. Naresh + Age of Prof. Devesh = 101  
Sum of ages of all professor of Marketing at the time of inception = 148  
Hence, the age of 3rd professor at the time of inception = 47  
Hence, his age in 2005 = 52 years. Hence, option (d) is the answer.
- (c) In 2001, one professor retires from the Finance area and the next year 2002, a new professor joins Finance. Hence, option (c) is the answer.
- (c) Hence, option (c) is the answer.
- (a) Let us first find out the productivity.

<i>State</i>	<i>Productivity (tons per hectare)</i>
Haryana	$\frac{19.2}{3.2} = 6$
Punjab	$\frac{24}{4} = 6$
Andhra Pradesh	$\frac{112}{22.4} = 5$
Uttar Pradesh	$\frac{67.2}{16.8} = 4$

Hence, Haryana and Punjab have the highest productivity.

6. (b) For Gujarat per capita production is  $\frac{24}{51} = 0.47$

So, we can conclude that for only per capita production of rice for Haryana, Punjab, Maharashtra and Andhra Pradesh are greater than Gujarat's (0.47).

7. (d) It can be seen from the table that Haryana, Gujarat, Punjab, MP, Tamil Nadu, Maharashtra, UP and AP are intensive rice producing states.

8. (a) Rahul and Yamini

9. (b) Gayatri, Urvashi and Zeena, cannot attend more than one workshop.

10. (b) Anshul, Bushkant, Gayatri and Urvashi cannot attend any of the workshops.

11. (d) We will be required to draw two tables in question 71. Winners after round two would be 1, 2, 3, 4, 5, 11, 10, 9 for 8 rounds respectively. Since Lindsay is 2 she will play opposite Venus Williams in quarter-final.

12. (c) Elena is at number 6 and Serena Williams is at number 8.

If they loose then table would be like this:

1	9
2	7
3	11
4	5

Maria is number 1, she will play with number 9, i.e., Nadia Petrova

13. (a)

1	32
2	31
3	30
4	29
5	28
6	27
7	26
8	25
9	24
10	23
11	22
12	21
13	20
14	19
15	18
16	17

Matches in bold letters had upsets.

Then from table, would be winners are: 1, 31, 29, 5, 27, 7, 25, 9, 23, 11, 21, 12, 19, 15, 17.

So the table for the next round would be:

1	17
31	15
3	19
29	13
5	21
27	11
7	23
25	9

Since there is no upset in second round, hence, table in next round will be like:

1	9
15	7
3	11
15	5

We have Maria Sharapova in the semi final. Since we are not sure what is the result of other games, table is drawn as given below:

Table in next round would be like:

1	5/13
7/15	3/11

14. (c)

1	8
2	7
3	6
4	5

In this case Kim Clijster will either not reach semi final or she will play Maria Sharapova in semi-finals. In that case one of these two will be eliminated. Hence, she cannot play Maria Sharapova in final.

15. (a) We will have the minimum returns if the extraordinary performing stocks (double and 1.5 growth) are the one's whose expected returns are lowest (i.e., 10% and 20%). Taking the minimum value of the expected returns as 10%, we will be required to see that which of the two values of 10 and 20 multiplied by 2 and 1.5 and vice versa will give the minimum value.

Hence, comparing the minimum value between  $20 \times 2 + 10 \times 1.5$  and  $20 \times 1.5 + 10 \times 2$ , we find that the 2nd one is minimum.

So, the minimum average return is =  $\frac{20 \times 1.5 + 10 \times 2 + 30 + 40}{4} = 30\%$

16. (b) Total return is  $35 \times 4 = 140$  (Average return is 35%)  
 There is only one possible arrangement of 140 ( $40 \times 1.5 + 30 + 20 \times 2 + 10$ )  
 A =  $20 \times 2$  (Cement of IT)  
 B = 10  
 C = 30  
 D =  $40(1.5)$  (Steel or auto)  
 Using the data given in the question, we can see that A has to be Cement of IT, D is Steel or Auto.  
 Hence, statement (II) and (III) are correct.
17. (c) Total return is  $38.75 \times 4$   
 The possible arrangement is  $20 + 10 + 30 \times 1.5 + 40 \times 2$   
 Hence, A = 20, B = 10, C = 30 (Steel or Auto), D = 40 (Cement or IT)  
 So, statement (I) and (IV) are correct.  
 So, option (c) is the answer.
18. (b) Given (c) belongs to Cement or IT industry  
 C's return is  $30 \times 2 = 60\%$   
 Among the other values we see that following are the possible arrangements:  
 $10 \times 1.5 + 20 + 40$ ,  $10 + 20 \times 1.5 + 40$ ,  $40 + 20 + 40 \times 1.5$   
 The average returns will be in each case
- $$\frac{10 \times 1.5 + 20 + 40 + 60}{4} = (33.75\%)$$
- $$\frac{10 + 20 \times 1.5 + 40 + 60}{4} = (35\%)$$
- $$\frac{40 + 20 + 40 \times 1.5 + 60}{4} = (45\%)$$
- Considering 33.75% as the valid value, then B belongs to the Auto industry.  
 So, statements (II) and (IV) are correct.  
 Hence, option (b) is the answer.
- Solution to Q19 to 22:**
- London = L, Paris = P, New York = NY, Beijing = B
- In round III, one of the two cities, either London or Paris will get 38 votes and the other 37. Now start decoding the information given:
- It is given that the representatives of London, Paris, Beijing and New York cannot vote as long as their own cities are in contention. In round I, New York gets eliminated and hence, the representative from New York becomes eligible for voting in the round II. So, for round II, total votes increases by 1. Hence, we can conclude that the total votes in round I should be equal to  $83 - 1 = 82$ .
  - Post round II, representative of Beijing votes in the III round. This should have increased the number of total votes by 1 and so the total votes =  $83 + 1 = 84$ .  
 It is known that the total votes in round III are 75 only. It is possible only if  $84 - 75 = 9$  people who voted in round I and II have become ineligible for voting in round III.
  - Let us understand that how come these nine people who have voted in round I and II become ineligible for voting in round III. The reason of their ineligibility is the fact that till round I and II, they have already voted for two different cities which are not available for contention in round II. We can again see that all of these nine voters must have been those who voted for New York in round I and then voted for Beijing in round II.
  - It is also given that 75% of the people voting for Beijing in round I voted again for Beijing in round II as well. Hence, 16 people must have voted for Beijing in round I.
  - Given that Beijing's vote in round II is 21. This includes 9 votes from people who voted for NY in the first round also. Therefore  $21 - 9 = 12$  people voted for Beijing in both round I and II.
  - We can have for round I:  $82 = L + P + NY$  Or  $82 = 30 + P + 16 + 12$   
 Giving  $P = 24$
  - And similarly, for round II we have:  
 $83 = L + 32 + 21$ , Giving  $L = 30$
  - New York had 12 votes in round I, 9 of these votes went to B (using point 2). The rest 3 went to P.

9. Now, B gets 16 votes in round I and 12 of them still vote for B. The rest 4 voted for either L or P. As L has the same number of votes in both the rounds I and II so we can conclude that in round II, these 4 votes must have gone to Paris only.
10. Representative of NY did not vote in round I, but he has voted in round II (30 votes in both the rounds I and II). We know the exact break up of B in II. Hence, NY representative vote must go to Paris. Further, in order to avoid ineligibility, this NY representative must vote for Paris only in round III also.
11. We can see the composition of votes obtained by Paris (in round II):  

$$32 = 24 \text{ (From round I)} + 4 \text{ (out of the 16, who voted for Beijing in round I)} + 3 \text{ (out of 12, who voted for NY in round I)} + 1 \text{ (NY).}$$
12. We know that Beijing gets eliminated in round II. So the Beijing can vote in round III.
13. 12 people (out of 21) who voted for Beijing in round II are still eligible for vote in round III.
14. Half of the members who voted for Beijing in Round I (i.e., 8 people) voted for Paris in round II. These 8 members include those four members too, who voted for Paris in round II also. Hence, a total of four members (out of 12, who voted for Beijing in round II and are still eligible for vote in round III) have voted for Paris in round III.
15. This means that the remaining B (out of 12 who voted for Beijing in round II) are still eligible for vote in round III) can vote for London only. This makes London's vote =  $30 + 8$  or 38 in round III. It means that Paris got 37 votes.
16. Beijing is eligible to vote in round III must have voted for Paris only.  
Now we obtain the final votes tally:

<b>Round</b>	<b>Total Votes</b>	<b>London (L)</b>	<b>Paris (P)</b>	<b>Beijing (B)</b>	<b>New York (NY)</b>
I	82	30	24	16	12
II	83	30	32	21(12 + 9)	X
III	75	$38 = (30 + B)$	37	X	X

19. (d) Percentage =  $(9/12) \times 100 = 75\%$
21. (d) Percentage =  $(8/12) \times 100 = 66.67\%$
22. (a) Based on the table members from NY must have voted for Paris in round II.

**Solution to Q23 to 26:**

<b>States</b>	<b>Firm A</b>	<b>Firm B</b>	<b>Firm C</b>	<b>Firm D</b>
UP	49	82	80	55
Bihar	69	72	70	65
MP	72	63	72	65
Total	190	217	222	185

Combination of Aggressive Ltd and Honest Ltd is possible only for—Firm A + Firm D or Firm B and Firm C. And Truthful Ltd can be only be with Firm A or Firm C.

23. (b) According to statement 1 of question 83, B is profitable, then A and D are Aggressive and Honest. Then Honest's total revenue cannot be more than that of Profitable. So statement 2 is not true.
24. (c) According to statement 1, Aggressive is Firm (B). So, Honest Ltd will be (C). Then statement 2 is also true. So, Honest Ltd's lowest revenue is from Bihar. Hence, option (c) is the answer.
25. (c) Firm B is Honest Ltd (according to statement 1).
26. (c) Profitable can be either A or D. Then Aggressive and Honest has to be B and (C). Hence, Truthful Ltd is either Firm A or D. And for both A and D lowest revenue is from UP. Hence, option (c) is the answer.

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# CAT 2006

## **LEARNING Objectives**

1. Read the instructions carefully before attempting the questions.
  2. Do your rough work on Test Booklet and not on the Answer Sheet.
  3. Total Questions = 50
  4. There is negative marking.

## ➤ SECTION 1—VERBAL ABILITY

**Direction for questions 1 to 5:** Each question has a set of four sequentially ordered statements. Each statement can be classified as one of the Fact, Judgement or Inference. From the given set of five options chose the one which best expresses the four statements.

- Facts, which deals with pieces of information that one has heard, seen or read, and which are open to discovery or verification (the answer option indicates such a statement with a “F”).
  - Inferences, which are conclusions drawn about the unknown, on the basis of the known (the answer option indicates such a statement with an “I”).
  - Judgements, which are opinions that imply approval or disapproval of persons, objects, situations and occurrences in the past, the present or the future (the answer option indicates such a statement with a “J”).

- Q 1. A. So much of our day-to-day focus seems to be on getting things done, trudging our way through the tasks of living—it can feel like a treadmill that gets you nowhere; where is the childlike joy?

- B. We are not doing the things that make us happy; that which brings us joy; the things that we cannot wait to do because we enjoy them so much.

- C. This is the stuff that joyful living is made of—identifying your calling and committing yourself wholeheartedly to it.

- D. When this happens, each moment becomes a celebration of you; there is a rush of energy that comes with feeling completely immersed in doing what you love most.



- Q 2. A. Given the poor quality of service in the public sector, the HIV/AIDS affected should be switching to private initiatives that supply Anti-Retroviral drugs (ARVs) at a low cost.

- B. The government has been supplying free drugs since 2004, and 35000 have benefited up to now—though the size of the affected population is 150 times this number.

- C. The recent initiatives of networks and companies like AIDS Care Network, Emcure, Reliance-Cipla-



and because age provides credibility in transmitting that information to others. However, as people become older, their willingness to bear risks declines, their opportunity costs rise, and they become less receptive to new information.

- (a) As a result, people transmit more information rather than experiment with new ideas as they reach an advanced age.
  - (b) As a result, people are reluctant to experiment with new ideas as they reach an advanced age.
  - (c) As a result, only people with lower opportunity costs exploit opportunity when they reach an advanced age.
  - (d) As a result, people become reluctant to exploit entrepreneurial opportunities when they reach an advanced age.
- Q 10. We can usefully think of theoretical models as maps, which help us navigate unfamiliar territory. The most accurate map that it is possible to construct would be of no practical use whatsoever, for it would be an exact replica, on exactly the same scale, of the place where we were. Good maps pull out the most important features and throw away a huge amount of much less valuable information. Of course, maps can be bad as well as good witness the attempts by medieval Europe to produce a map of the world. In the same way, a bad theory, no matter how impressive it may seem in principle, does little or nothing to help us understand a problem.
- (a) But good theories, just like good maps, are invaluable, even if they are simplified.
  - (b) But good theories, just like good maps, will never represent unfamiliar concepts in detail.
  - (c) But good theories, just like good maps, need to balance detail and feasibility of representation.
  - (d) But good theories, just like good maps, are accurate only at a certain level of abstraction.

**Direction for questions 11 to 15:** *The passage given below is followed by a set of five questions. Choose the most appropriate answer to each question.*

#### PASSAGE I

Fifteen years after communism was officially pronounced dead, its spectre seems once again to be haunting Europe. Last month, the Council of Europe's parliamentary assembly voted to condemn the—crimes of totalitarian communist regimes, “linking them with Nazism and complaining that communist parties are still—legal and active in some countries.” Now Goran Lindblad, the conservative Swedish MP behind the resolution, wants to go further. Demands that European Ministers launch a continent-wide anti-communist campaign—including school textbook revisions, official memorial days, and museums—only narrowly missed the necessary two-thirds majority. Mr Lindblad pledged to bring the wider plans back to the Council of Europe in the coming months.

He has chosen a good year for his ideological offensive: this is the 50th anniversary of Nikita Khrushchev's denunciation of Josef Stalin and the subsequent Hungarian uprising, which will doubtless be the cue for further excoriation of the communist record. Paradoxically, given that there is no communist government left in Europe outside Moldova, the attacks have if anything, become more extreme as time has gone on. A clue as to why that might be can be found in the rambling report by Mr Lindblad that led to the Council of Europe declaration. Blaming class struggle and public ownership, he explained—different elements of communist ideology such as equality or social justice still seduce many “and—a sort of nostalgia for communism is still alive.” Perhaps the real problem for Mr Lindblad and his right-wing allies in Eastern Europe is that communism is not dead enough and they will only be content when they have driven a stake through its heart.

The fashionable attempt to equate communism and Nazism is in reality a moral and historical nonsense. Despite the cruelties of the Stalin terror, there was no Soviet Treblinka or Sobibor, no extermination camps built to murder millions. Nor did the Soviet Union launch the most devastating war in history at a cost of more than 50 million lives. In fact, it played the decisive role in the defeat of the German war machine. Mr Lindblad and the Council of Europe adopt as fact the wildest estimates of those—“killed by communist regimes” (mostly in famines) from the fiercely contested Black Book of Communism, which also underplays the number of deaths attributable to Hitler. But, in any case, none of this explains why anyone might be nostalgic in former communist states, now enjoying the delights of capitalist restoration. The dominant account gives no sense of how communist regimes renewed themselves after 1956 or why Western leaders feared they might overtake the capitalist world well into the 1960s. For all its brutalities and failures, communism in the Soviet Union, Eastern Europe, and elsewhere delivered rapid industrialization, mass education, job security, and huge advances in social and gender equality. Its existence helped to drive up welfare standards in the West, and provided a powerful counterweight to Western global domination.

It would be easier to take the Council of Europe's condemnation of communist state crimes seriously if it had also seen fit to denounce the far bloodier record of European colonialism—which only finally came to an end in the 1970s. This was a system of racist despotism, which dominated the globe in Stalin's time. And while there is precious little connection between the ideas of fascism and communism, there is an intimate link between colonialism and Nazism. The terms *lebensraum* and *konzentrationslager* were both first used by the German colonial regime in south-west Africa (now Namibia), which committed genocide against the Herero and Nama peoples and bequeathed its ideas and personnel directly to the Nazi party.

Around 10 million Congolese died as a result of Belgian forced labour and mass murder in the early twentieth century; tens of millions perished in avoidable or enforced famines in British-ruled India; up to a million Algerians died in their war for independence, while controversy now rages in France about

a new law requiring teachers to put a positive spin on colonial history. Comparable atrocities were carried out by all European colonialists, but not a word of condemnation from the Council of Europe. Presumably, European lives count for more.

No major twentieth century political tradition is without blood on its hands, but battles over history are more about the future than the past. Part of the current enthusiasm in official Western circles for dancing on the grave of communism is no doubt about relations with today's Russia and China. But it also reflects a determination to prove there is no alternative to the new global capitalist order and that any attempt to find one is bound to lead to suffering. With the new imperialism now being resisted in the Muslim world and Latin America, growing international demands for social justice and ever greater doubts about whether the environmental crisis can be solved within the existing economic system, the pressure for alternatives will increase.

Q 11. Among all the apprehensions that Mr Goran Lindblad expresses against communism, which one gets admitted, although indirectly, by the author?

- (a) There is nostalgia for communist ideology even if communism has been abandoned by most European nations.
- (b) Notions of social justice inherent in communist ideology appeal to critics of existing systems.
- (c) Communist regimes were totalitarian and marked by brutalities and large scale violence.
- (d) The existing economic order is wrongly viewed as imperialistic by proponents of communism.

Q 12. What, according to the author, is the real reason for a renewed attack against communism?

- (a) Disguising the unintended consequences of the current economic order such as social injustice and environmental crisis.
- (b) Idealizing the existing ideology of global capitalism.
- (c) Making communism a generic representative of all historical atrocities, especially those perpetrated by the European imperialists.
- (d) Communism still survives, in bits and pieces, in the minds and hearts of people.

Q 13. The author cites examples of atrocities perpetrated by European colonial regimes in order to:

- (a) compare the atrocities committed by colonial regimes with those of communist regimes.
- (b) prove that the atrocities committed by colonial regimes were more than those of communist regimes.
- (c) prove that, ideologically, communism was much better than colonialism and Nazism.
- (d) neutralize the arguments of Mr Lindblad and to argue that one needs to go beyond and look at the motives of these regimes.

Q 14. Why, according to the author, is Nazism closer to colonialism than it is to communism?

- (a) Both colonialism and Nazism were examples of tyranny of one race over another.
- (b) The genocides committed by the colonial and the Nazi regimes were of similar magnitude.
- (c) Several ideas of the Nazi regime were directly imported from colonial regimes.
- (d) Both colonialism and Nazism are based on the principles of imperialism.

Q 15. Which of the following cannot be inferred as a compelling reason for the silence of the Council of Europe on colonial atrocities?

- (a) The Council of Europe being dominated by erstwhile colonialists.
- (b) Generating support for condemning communist ideology.
- (c) Unwillingness to antagonize allies by raking up an embarrassing past.
- (d) Greater value seemingly placed on European lives.

**Direction for questions 16 to 20:** *The passage given below is followed by a set of five questions. Choose the most appropriate answer to each question.*

## PASSAGE II

My aim is to present a conception of justice which generalizes and carries to a higher level of abstraction the familiar theory of the social contract. In order to do this, we are not to think of the original contract as one to enter a particular society or to set up a particular form of government. Rather, the idea is that the principles of justice for the basic structure of society are the object of the original agreement. They are the principles that free and rational persons concerned to further their own interests would accept in an initial position of equality. These principles are to regulate all further agreements; they specify the kinds of social cooperation that can be entered into and the forms of government that can be established. This way of regarding the principles of justice, I shall call justice as fairness. Thus, we are to imagine that those who engage in social cooperation choose together, in one joint act, the principles which are to assign basic rights and duties and to determine the division of social benefits. Just as each person must decide by rational reflection what constitutes his good, that is, the system of ends which it is rational for him to pursue, so a group of persons must decide once and for all what is to count among them as just and unjust. The choice which rational men would make in this hypothetical situation of equal liberty determines the principles of justice.

In 'justice as fairness', the original position is not an actual historical state of affairs. It is understood as a purely hypothetical situation characterized so as to lead to a certain conception of justice. Among the essential features of this situation is that no one knows his place in society, his class position or social status, nor does anyone know his fortune in the distribution of natural assets and abilities, his intelligence, strength, and the

like. I shall even assume that the parties do not know their conceptions of the good or their special psychological propensities. The principles of justice are chosen behind a veil of ignorance. This ensures that no one is advantaged or disadvantaged in the choice of principles by the outcome of natural chance or the contingency of social circumstances. Since all are similarly situated and no one is able to design principles to favor his particular condition, the principles of justice are the result of a fair agreement or bargain.

Justice as fairness begins with one of the most general of all choices which persons might make together, namely, with the choice of the first principles of a conception of justice which is to regulate all subsequent criticism and reform of institutions. Then, having chosen a conception of justice, we can suppose that they are to choose a constitution and a legislature to enact laws, and so on, all in accordance with the principles of justice initially agreed upon. Our social situation is just if it is such that by this sequence of hypothetical agreements we would have contracted into the general system of rules which defines it. Moreover, assuming that the original position does determine a set of principles, it will then be true that whenever social institutions satisfy these principles, those engaged in them can say to one another that they are cooperating on terms to which they would agree if they were free and equal persons whose relations with respect to one another were fair. They could all view their arrangements as meeting the stipulations which they would acknowledge in an initial situation that embodies widely accepted and reasonable constraints on the choice of principles. The general recognition of this fact would provide the basis for a public acceptance of the corresponding principles of justice. No society can, of course, be a scheme of cooperation which men enter voluntarily in a literal sense; each person finds himself placed at birth in some particular position in some particular society, and the nature of this position materially affects his life prospects. Yet a society satisfying the principles of justice as fairness comes as close as a society can to being a voluntary scheme, for it meets the principles which free and equal persons would assent to under circumstances that are fair.

**Q 16.** A just society, as conceptualized in the passage, can be best described as:

- (a) A Utopia in which everyone is equal and no one enjoys any privilege based on their existing positions and powers.
- (b) A hypothetical society in which people agree upon principles of justice which are fair.
- (c) A society in which principles of justice are not based on the existing positions and powers of the individuals.
- (d) A society in which principles of justice are fair to all.

**Q 17.** The original agreement or original position in the passage has been used by the author as:

- (a) A hypothetical situation conceived to derive principles of justice which are not influenced by position, status and condition of individuals in the society.

- (b) A hypothetical situation in which every individual is equal and no individual enjoys any privilege based on the existing positions and powers.
- (c) A hypothetical situation to ensure fairness of agreements among individuals in society.
- (d) An imagined situation in which principles of justice would have to be fair.

**Q 18.** Which of the following best illustrates the situation that is equivalent to choosing the principles of justice' behind a veil of ignorance?

- (a) The principles of justice are chosen by businessmen, who are marooned on an uninhabited island after a shipwreck, but have some possibility of returning.
- (b) The principles of justice are chosen by a group of school children whose capabilities are yet to develop.
- (c) The principles of justice are chosen by businessmen, who are marooned on an uninhabited island after a shipwreck and have no possibility of returning.
- (d) The principles of justice are chosen assuming that such principles will govern the lives of the rule makers only in their next birth if the rule makers agree that they will be born again.

**Q 19.** Why, according to the passage, do principles of justice need to be based on an original agreement?

- (a) Social institutions and laws can be considered fair only if they conform to principles of justice.
- (b) Social institutions and laws can be fair only if they are consistent with the principles of justice as initially agreed upon.
- (c) Social institutions and laws need to be fair in order to be just.
- (d) Social institutions and laws evolve fairly only if they are consistent with the principles of justice as initially agreed upon.

**Q 20.** Which of the following situations best represents the idea of justice as fairness, as argued in the passage?

- (a) All individuals are paid equally for the work they do.
- (b) Everyone is assigned some work for his or her livelihood.
- (c) All acts of theft are penalized equally.
- (d) All children are provided free education in similar schools.

**Direction** for questions 21 to 25: *The passage given below is followed by a set of five questions. Choose the most appropriate answer to each question.*

### PASSAGE III

Our propensity to look out for regularities, and to impose laws upon nature, leads to the psychological phenomenon of

dogmatic thinking or, more generally, dogmatic behaviour: we expect regularities everywhere and attempt to find them even where there are none; events which do not yield to these attempts we are inclined to treat as a kind of ‘background noise’; and we stick to our expectations even when they are inadequate and we ought to accept defeat. This dogmatism is to some extent necessary. It is demanded by a situation which can only be dealt with by forcing our conjectures upon the world. Moreover, this dogmatism allows us to approach a good theory in stages, by way of approximations: if we accept defeat too easily, we may prevent ourselves from finding that we were very nearly right.

It is clear that this *dogmatic attitude*, which makes us stick to our first impressions, is indicative of a strong belief; while a *critical attitude*, which is ready to modify its tenets, which admits doubt and demands tests, is indicative of a weaker belief. Now according to Hume’s theory, and to the popular theory, the strength of a belief should be a product of repetition; thus it should always grow with experience, and always be greater in less primitive persons. But dogmatic thinking, an uncontrolled wish to impose regularities, a manifest pleasure in rites and in repetition as such, is characteristic of primitives and children; and increasing experience and maturity sometimes create an attitude of caution and criticism rather than of dogmatism.

My logical criticism of Hume’s psychological theory, and the considerations connected with it, may seem a little removed from the field of the philosophy of science. But the distinction between dogmatic and critical thinking, or the dogmatic and the critical attitude, brings us right back to our central problem. For the dogmatic attitude is clearly related to the tendency to verify our laws and schemata by seeking to apply them and to confirm them, even to the point of neglecting refutations, whereas the critical attitude is one of readiness to change them or to test them; to refute them; to falsify them, if possible. This suggests that we may identify the critical attitude with the scientific attitude, and the dogmatic attitude with the one which we have described as pseudo-scientific. It further suggests that genetically speaking the pseudo-scientific attitude is more primitive than, and prior to, the scientific attitude: that it is a pre-scientific attitude. And this primitivity or priority also has its logical aspect. For the critical attitude is not so much opposed to the dogmatic attitude as superimposed upon it: criticism must be directed against existing and influential beliefs in need of critical revision in other words, dogmatic beliefs. A critical attitude needs for its raw material, as it were, theories or beliefs which are held more or less dogmatically.

Thus, science must begin with myths, and with the criticism of myths; neither with the collection of observations, nor with the invention of experiments, but with the critical discussion of myths, and of magical techniques and practices. The scientific tradition is distinguished from the pre-scientific tradition in having two layers. Like the latter, it passes on its theories; but it also passes on a critical attitude towards them.

The theories are passed on, not as dogmas, but rather with the challenge to discuss them and improve upon them.

The critical attitude, the tradition of free discussion of theories with the aim of discovering their weak spots so that they may be improved upon, is the attitude of reasonableness, of rationality. From the point of view here developed, all laws, all theories, remain essentially tentative, or conjectural, or hypothetical, even when we feel unable to doubt them any longer. Before a theory has been refuted we can never know in what way it may have to be modified.

- Q 21. In the context of science, according to the passage, the interaction of *dogmatic beliefs* and *critical attitude* can be best described as:
- A duel between two warriors in which one has to die.
  - The effect of a chisel on a marble stone while making a sculpture.
  - The feedstock (natural gas) in fertilizer industry being transformed into fertilizers.
  - A predator killing its prey.
- Q 22. According to the passage, the role of a dogmatic attitude or dogmatic behaviour in the development of science is
- critical and important, as, without it, initial hypotheses or conjectures can never be made.
  - positive, as conjectures arising out of our dogmatic attitude become science.
  - negative, as it leads to pseudo-science.
  - neutral, as the development of science is essentially because of our critical attitude.
- Q 23. Dogmatic behaviour, in this passage, has been associated with primitives and children. Which of the following best describes the reason why the author compares primitives with children?
- Primitives are people who are not educated, and hence can be compared with children, who have not yet been through school.
  - Primitives are people who, though not modern, are as innocent as children.
  - Primitives are people without a critical attitude, just as children are.
  - Primitives are people in the early stages of human evolution; similarly, children are in the early stages of their lives.
- Q 24. Which of the following statements best supports the argument in the passage that a critical attitude leads to a weaker belief than a dogmatic attitude does?
- A critical attitude implies endless questioning, and, therefore, it cannot lead to strong beliefs.
  - A critical attitude, by definition, is centred on an analysis of anomalies and “noise”.
  - A critical attitude leads to questioning everything, and in the process generates “noise” without any conviction.

- (d) A critical attitude leads to questioning and to tentative hypotheses.
- Q 25. According to the passage, which of the following statements best describes the difference between science and pseudo-science?
- (a) Scientific theories or hypothesis are tentatively true whereas pseudo-sciences are always true.
  - (b) Scientific laws and theories are permanent and immutable whereas pseudo-sciences are contingent on the prevalent mode of thinking in a society.
  - (c) Science always allows the possibility of rejecting a theory or hypothesis, whereas pseudo-sciences seek to validate their ideas or theories.
  - (d) Science focuses on anomalies and exceptions so that fundamental truths can be uncovered, whereas pseudo-sciences focus mainly on general truths.

# ANSWERS



## SECTION 1—VERBAL ABILITY

Q. No.	Answer						
1	(d)	2	(a)	3	(c)	4	(d)
5	(b)	6	(c)	7	(d)	8	(b)
9	(d)	10	(a)	11	(c)	12	(b)
13	(d)	14	(a)	15	(d)	16	(c)
17	(a)	18	(d)	19	(b)	20	(d)
21	(b)	22	(a)	23	(d)	24	(d)
25	(c)						

## HINTS AND EXPLANATIONS

### SECTION 1—VERBAL ABILITY



1. (d) This is a very tricky one but as we can see there is no statement that can be called a fact, so we eliminate (b), (c) and (d). Also we can see that (a), (b) and (c) are not conclusions based on any fact given as there are simply no facts presented. This eliminates (d). So it is a set of four judgments. Thus, option (d) is the answer.
2. (a) Here statement 2 is a fact, so Option (b) is out. Now, statement 1 is a judgement because of the use of the words ‘should be’ in the first statement, so options (c) and (d) are out. Now the last statement can either be fact or a judgement. But we can see that none of the option ends with an ‘F’. Thus, option (a) is the answer.
3. (c) Here statement 1 is surely an inference as it is a conclusion based on known facts and 3 is a fact. This eliminates (b) and (d). Also statement 4 is a judgment as it is simply an opinion, ruling out (d). Also, statement (b), which can be taken to be an inference by a lot many, is, indeed a judgment as there is no reason presented here as to why this is happening. So in the absence of sufficient, this statement should be considered a ‘judgement’. Thus, option (c) is the answer.
4. (d) Here 1 and 3 are judgments—these are opinions on ‘not so firm evidence’—as given in the question and 2 is a fact. This eliminates (a) and (d). The last statement can either be an inference or a judgement, which eliminates option (c). Now, there is contention between the 2nd option and the 5th option. The 4th statement cannot be a judgement because it is not an approval or a disapproval of anything. It is just a opinion based on the something known (the second part of the sentence). Hence, Thus, option (d) is the answer.
5. (b) The first statement uses words like, ‘certainly’ and ‘most sinister’. Such strong modifiers are clear indicators of a judgment. Statement 2 is a little difficult to classify at first glance, but we can see a cause-effect relationship in the statement ‘Even without war’ can be written as ‘Even if there is no war’. Hence the statement means. ‘Even if there is no war, we know that.....’. Hence, the second statement is an Inference. The third statement is a Judgment because of the use of the word ‘only’, a non-verifiable modifier in the context of the statement. The fourth statement is clearly a categorically stated fact.
6. (c) Options (a) and (b) are wrong. The phrase ‘applied research’ is not mentioned anywhere in the passage. Options (d) is also wrong since no mention is made of consumer behaviour. Hence, option (c) is the answer.
7. (d) Options (a), (b) are definitely wrong and not directly related to the passage. Options (c) and (d) are similar but (d) presents a more definite and logical conclusion. Hence, option (d) is the answer.
8. (b) The word ‘professes’ in the last sentence of the passage signifies a veil or mask. The best option to use this concept is (b). Hence, option (b) is the answer.
9. (d) Options (a) and (b) use the phrase ‘ideas’, which is not mentioned in the passage. The passage mainly discusses ‘opportunities’, which is not the same as

- 'ideas'. (c) and (d) discuss alternatives. The only option that can directly follow is (c). Hence, option (d) is the answer.
10. (a) All the options are similar but indirectly agree with the passage. Only Option (a) is a logical follow up of the previous statement. Hence, option (a) is the answer.
15. (d) We need to find out which of the options cannot be inferred as a reason for the silence of the Council of Europe on colonial atrocities. Options (a), (b), (c) and (d) can all be inferred from the passage. The Council being dominated by erstwhile colonialists, generating support to condemn communist ideology, it is unwillingness to antagonize allies and comparing communism to Nazism are all statements that can be inferred from the passage. Hence, option (d) is the answer.
16. (c) Refer to paragraph 3, especially the last two sentences. According to the author, a just society is one in which no one is privileged over the others. This is what is stated in Option (c). The two similar options (a) and (d) can be negated on the basis that they go too far in calling the said society 'hypothetical' or a 'Utopia'. Hence, option (c) is the answer.
17. (a) Refer to paragraph 2. The author's conception of a just society involves a hypothetical situation in which all participants are equal and agree on the principles of justice among themselves. This idea is present only in (a). Hence, option (a) is the answer.
18. (d) From the passage we understand that the phrase 'veil of ignorance' denotes a situation in which the people who derive the principles of justice in their society are completely ignorant about their place in society or even their own individual abilities. This kind of full-scale ignorance can be possible only in the situation described in (d). Hence, option (d) is the answer.
20. (d) Option (d) captures the essence of justice as explained in the passage, as in this situation children are provided with an equal start and equal opportunities in life. Hence, option (d) is the answer.
21. (b) Refer to paragraph 3, the last sentence. Dogmatic beliefs are the raw material for the critical attitude. Also refer to the previous sentence – the critical attitude is 'super-imposed' upon the dogmatic attitude. This relationship is found only in Option (b). Hence, option (b) is the answer.
22. (a) Refer to paragraph 3, the last two sentences. Dogmatic behavior provides the 'raw material' for the critical attitude. So it is clearly 'critical and important' for critical attitude. Hence, option (a) is the answer.
23. (d) Options (a), (b) and (d) are clearly out of context since there is no data in the passage to support these options. Options (c) is close. The passage has not provided us with the information as given in (c) and neither is there any basis for inferring it. The author seems more intent on drawing an analogy in terms of stages of evolution (Second para, "the strength of a belief should be a product of repetition; thus it should always grow with experience"). Hence, option (d) is the answer.
24. (d) Last paragraph gives the wide ranging conclusion that a critical attitude leads to the point where ALL theories are tentative. Hence, option (d) is the answer.
25. (c) Refer to paragraph 3. The author identifies the critical attitude with the scientific attitude and the dogmatic with the pseudo-scientific. The critical attitude is even willing to falsify its own beliefs whereas the dogmatic one goes out of its way to confirm its beliefs. Hence, option (c) is the answer.

## ➤ SECTION 2—LOGICAL REASONING

**Direction for questions 1 to 5:** Answer questions 1 to 5 on the basis of the information given below.

K, L, M, N, P, Q, R, S, U and W are the only ten members in a department. There is a proposal to form a team from within the members of the department, subject to the following conditions:

- A team must include exactly one among P, R, and S.
  - A team must include either M or Q, but not both.
  - If a team includes K, then it must also include L, and vice versa.
  - If a team includes one among S, U, and W, then it must also include the other two.
  - L and N cannot be members of the same team.
  - L and U cannot be members of the same team.
  - The size of a team is defined as the number of members in the team.

Q 1. Who cannot be a member of a team of size 3?



Q 2. Who can be a member of a team of size 5?



O 3. What would be the size of the largest possible team?



Q 4. What could be the size of a team that includes K?

- (a) 2 or 3      (b) 2 or 4      (c) 3 or 4      (d) Only 4

Q 5. In how many ways a team can be constituted so that the team includes N?



**Direction for questions 6 to 10:** Answer Questions 6 to 10 on the basis of the information given below.

In a Class X Board examination, ten papers are distributed over five groups—PCB, Mathematics, Social Science, Vernacular and English. Each of the ten papers is evaluated out of 100. The final score of a student is calculated in the following manner. First, the Group Scores are obtained by averaging marks in the papers within the Group. The final score is the simple average of the Group Scores. The data for the top ten students are presented below. (Dipan's score in English Paper II has been intentionally removed in the table.)

Name of the Student	PCB Group			Mathematics	Social Science Group		Vernacular Group		English Group		Final Score
	Phy	Chem	Bio		Hist	Geo	Paper I	Paper II	Paper I	Paper II	
Ayesha (G)	98	96	97	98	95	93	94	96	96	98	96.2
Ram (B)	97	99	95	97	95	95	96	94	96	98	96.1
Dipan (B)	98	98	98	95	96	95	96	94	96	??	96.0
Sagnik (B)	97	98	99	96	96	98	94	97	92	94	95.9
Sanjiv (B)	95	96	97	98	97	96	92	93	95	96	95.7
Shreya (G)	96	89	85	100	97	98	94	95	96	95	95.5
Joseph (B)	90	94	98	100	94	97	90	92	94	95	95
Agni (B)	96	99	96	99	95	96	82	93	92	93	94.3
Pritam (B)	98	98	95	98	83	95	90	93	94	94	93.9
Tima (G)	96	98	97	99	85	94	92	91	87	96	93.7

Note: B or G against the name of a student respectively indicates whether the student is a boy or a girl.

**Direction for questions 11 to 15:** Answer Questions 11 to 15 on the basis of the information given below.

Mathematicians are assigned a number called Erdős number (named after the famous mathematician, Paul Erdős). Only Paul Erdős himself has an Erdős number of zero. Any mathematician who has written a research paper with Erdős has an Erdős number of 1. For other mathematicians, the calculation of his/her Erdős number is illustrated below:

Suppose that a mathematician X has co-authored papers with several other mathematicians. From among them, mathematician Y has the smallest Erdős number. Let the Erdős number of Y be  $y$ . Then X has an Erdős number of  $y + 1$ . Hence, any mathematician with no co-authorship chain connected to Erdős has an Erdős number of infinity.

In a seven day long mini-conference organized in memory of Paul Erdős, a close group of eight mathematicians, call them A, B, C, D, E, F, G and H, discussed some research problems. At the beginning of the conference, A was the only participant who had an infinite Erdős number. Nobody had an Erdős number less than that of E.

- On the third day of the conference F co-authored a paper jointly with (a) and (c). This reduced the average Erdős number of the group of eight mathematicians to 3. The Erdős numbers of (b), (d), and H remained unchanged with the writing of this paper. Further, no other co-authorship among any three members would have reduced the average Erdős number of the group of eight to as low as 3.
  - At the end of the third day, five members of this group had identical Erdős numbers while the other three had Erdős numbers distinct from each other.
  - On the fifth day, E co-authored a paper with F which reduced the group's average Erdős number by 0.5. The Erdős numbers of the remaining six were unchanged with the writing of this paper.
  - No other paper was written during the conference.

- Q 11. How many participants in the conference did not change their Erdős number during the conference?  
(a) 2                    (b) 3                    (c) 4                    (d) 5

Q 12. The person having the largest Erdős number at the end of the conference must have had Erdős number (at that time)  
(a) 5                    (b) 7                    (c) 9                    (d) 14

Q 13. How many participants had the same Erdős number at the beginning of the conference?  
(a) 2                    (b) 3                    (c) 4                    (d) 5

Q 14. The Erdős number of C at the end of the conference was  
(a) 1                    (b) 2                    (c) 3                    (d) 4

Q 15. The Erdős number of E at the beginning of the conference was  
(a) 2                    (b) 5                    (c) 6                    (d) 7

**Direction for questions 16 to 20: Answer Questions 16 to 20 on the basis of the information given below.**

Two traders, Chetan and Michael, were involved in the buying and selling of MCS shares over five trading days. At the beginning of the first day, the MCS share was priced at Rs 100, while at the end of the fifth day it was priced at Rs 110. At the end of each day, the MCS share price either went up by Rs 10, or else, it came down by Rs 10. Both Chetan and Michael took buying and selling decisions at the end of each trading day.

The beginning price of MCS share on a given day was the same as the ending price of the previous day.

Chetan and Michael started with the same number of shares and amount of cash, and had enough of both

Below are some additional facts about how Chetan and Michael traded over the five trading days

- Each day if the price went up, Chetan sold 10 shares of MCS at the closing price. On the other hand, each day if the price went down, he bought 10 shares at the closing price.
  - If on any day, the closing price was above Rs 110, then Michael sold 10 shares of MCS, while if it was below Rs 90, he bought 10 shares, all at the closing price.

Q 16. If Chetan sold 10 shares of MCS on three consecutive days, while Michael sold 10 shares only once during the five days, what was the price of MCS at the end of day 3?

- (a) Rs 90      (b) Rs 100      (c) Rs 110      (d) Rs 120

Q 17. If Chetan ended up with Rs 1300 more cash than Michael at the end of day 5, what was the price of MCS share at the end of day 4?



Q 18. If Michael ended up with 20 more shares than Chetan at the end of day 5, what was the price of the share at the end of day 3?



Q 19. If Michael ended up with Rs 100 less cash than Chetan at the end of day 5, what was the difference in the number of shares possessed by Michael and Chetan (at the end of day 5)?

- (a) Michael had 10 less shares than Chetan.
  - (b) Michael had 10 more shares than Chetan.
  - (c) Chetan had 10 more shares than Michael.
  - (d) Both had the same number of shares.

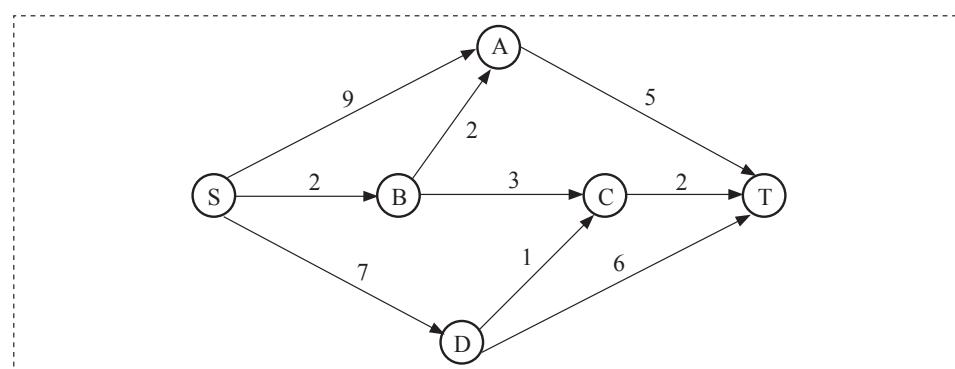
Q 20. What could have been the maximum possible increase in combined cash balance of Chetan and Michael at the end of the fifth day?

- (a) Rs 3700      (b) Rs 4000      (c) Rs 4700      (d) Rs 5000

**Direction for questions 21 to 25:** Answer questions 21 to 25 on the basis of the information given below.

A significant amount of traffic flows from point S to point T in the one-way street network shown below.

Points A, B, C, and D are junctions in the network, and the arrows mark the direction of traffic flow. The fuel cost in rupees for travelling along a street is indicated by the number adjacent to the arrow representing the street.



Motorists travelling from point S to point T would obviously take the route for which the total cost of traveling is the minimum. If two or more routes have the same least travel cost, then motorists are indifferent between them. Hence, the traffic gets evenly distributed among all the least cost routes.

The government can control the flow of traffic only by levying appropriate toll at each junction. For example, if a motorist takes the route S-A-T (using junction A alone), then the total cost of travel would be Rs 14 (i.e., Rs 9 + Rs 5) plus the toll charged at junction (a).

- Q 21. If the government wants to ensure that no traffic flows on the street from D to T, while equal amount of traffic flows through junctions A and C, then a feasible set of toll charged (in rupees) at junctions A, B, C, and D respectively to achieve this goal is  
(a) 1, 5, 3, 3      (b) 1, 4, 4, 3      (c) 1, 5, 4, 2      (d) 0, 5, 2, 2
- Q 22. If the government wants to ensure that all motorists travelling from S to T pay the same amount (fuel costs and toll combined) regardless of the route they choose and the street from B to C is under repairs (and hence, unusable), then a feasible set of toll charged (in rupees) at junctions A, B, C and D respectively to achieve this goal is  
(a) 2, 5, 3, 2      (b) 0, 5, 3, 1      (c) 1, 5, 3, 2      (d) 2, 3, 5, 1
- Q 23. If the government wants to ensure that the traffic at S gets evenly distributed along streets from S to A, from S to B, and from S to D, then a feasible set of toll charged (in rupees) at junctions A, B, C and D respectively to achieve this goal is  
(a) 0, 5, 4, 1      (b) 0, 5, 2, 2      (c) 1, 5, 3, 3      (d) 1, 5, 3, 2
- Q 24. If the government wants to ensure that all routes from S to T get the same amount of traffic, then a feasible set of toll charged (in rupees) at junctions A, B, C and D respectively to achieve this goal is  
(a) 0, 5, 2, 2      (b) 0, 5, 4, 1      (c) 1, 5, 3, 3      (d) 1, 5, 3, 2
- Q 25. The government wants to devise a toll policy such that the total cost to the commuters per trip is minimized. The policy should also ensure that not more than 70 per cent of the total traffic passes through junction (b). The cost incurred by the commuter travelling from point S to point T under this policy will be  
(a) Rs 7      (b) Rs 9      (c) Rs 10      (d) Rs 13

# ANSWERS



## ◀ SECTION 2—LOGICAL REASONING

Q. No.	Answer						
1	(a)	2	(c)	3	(d)	4	(d)
5	(d)	6	(c)	7	(a)	8	(a)
9	(a)	10	(d)	11	(d)	12	(b)
13	(b)	14	(b)	15	(c)	16	(c)
17	(b)	18	(a)	19	(d)	20	(d)
21	(d)	22	(*)	23	(a)	24	(c)
25	(c)						

\* See Hints and Explanations

# HINTS AND EXPLANATIONS

## ◀ SECTION 2—LOGICAL REASONING



- (a) In the team of size 3, one member will be from P, R and S and one member will be from M and Q.  
Now only one member has to be determined and we know that K and L will be always in team and since there is place for only 1 member, hence, K and L will not be in team of 3 members.  
Hence, option (a) is the answer.
- (c) If we take K and L we cannot take N and U so the size of team will be 4 only. Now we will take S from first statement so U and W will also be there. Now as U is there so L cannot be there and hence, K will also not be there. As L is not in team so we can take N so 4 members of team are S, U, W and N and because of the second statement any one of M or Q will be there and only M is given in the options.  
Hence, option (c) is the answer.
- (d) Using the first statement, if we take P or R, U and W cannot be in team. To get maximum members in team we should take S and from 4th statement U and W will also be in the team. Now either M or Q will be included in the team, and since U is there L cannot be included in the team hence, K will also not be there.  
Now as L is not in the team, N can be included in the team. So team with maximum numbers of members will be S, W, U, N and any one from M and Q.  
Hence, maximum possible size of team of team is 5.  
Hence, option (d) is the answer.
- (d) If we have to take K, L will always be there so U and N will not be in the team. As U is not in the team so S and W will also not be included in the team.  
As any one from P and R will always be there in team and same is the case with M and Q, so the size of team that includes K will always be 4.  
Hence, option (d) is the answer.
- (d) Following are the ways in which a team can be constituted:  

(a) P, M, N	(b) P, Q, N	(c) R, M, N
(d) S, U, W, N, M	(e) R, Q, N	(f) S, U, W, N, Q

  
Hence, option (d) is the answer.

6. (c) Dipan's total score = 480  
 Hence, Dipan's score in English group = 96.5  
 Hence, Dipan's score in English paper II =  $(96.5 \times 2) - 96 = 97$   
 Hence, option (c) is the answer.
7. (a) This is actually a very simple question based on observation of the data only.  
 Only Dipan scored at least 95 in at least one paper from each of the groups.  
 Hence, option (a) is the answer.
8. (a) Let us calculate the scores after including the group score of 100 in the Social Science Group score of each person:  
 Joseph =  $475 + 100 - 95.5 = 479.5$   
 Agni =  $471.5 + 100 - 95.5 = 476$   
 Pritam =  $469.5 + 100 - 89 = 480.5$   
 Tirna =  $468.5 + 100 - 89.5 = 479$   
 Hence, the correct decreasing order would be Pritam, Joseph, Tirna, Agni.  
 Hence, option (a) is the answer.
9. (a) Going through the options, we can see that Sherya, Ram and Ayesha do not satisfy the given criteria and we can observe that only Dipan satisfies all the criteria.  
 Hence, option (a) is the answer.
10. (d) Here, the final score will be improved according to the number of marks he improved in the particular group and it can be given as follows.  
 For improvement of 15 marks in PCB group the marks will be improved by 1 in the final score, i.e., in the ratio 15 : 1.  
 For improvement of 5 marks in Mathematics group the marks will be improved by 12 in the final score, i.e., in the ratio 5 : 1, and similarly, for other subjects.  
 We can see now that after improvement:  
 Ram's maximum total score will be =  $96.1 + 0.6 = 96.7$   
 Agni's maximum total score will be =  $94.3 + 1.8 = 96.1$   
 Pritam's maximum total score will be =  $93.9 + 1.7 = 94.6$   
 Ayesha's maximum total score will be =  $96.2 + 0.7 = 96.9$   
 Dipan's maximum total score will be =  $96.0 + 1 = 97.0$   
 Hence, option (d) is the answer.

#### Solution to Q11 to 15:

Following information is given:

- There are eight participants—A, B, C, D, E, F, G and H.
- At the beginning A's Erdős number is infinity.
- None of them is having an Erdős number less than that of F.
- On the 3rd day, (after F, A and C co-authored the paper) the average of their Erdős number is 3 (i.e., total Erdős number of the group is 4) that is the least possible.
- No other combination of three participants was possible that reduces the average upto 3 at this time.
- At this point of time, 5 members have same Erdős numbers, and the other 3 have distinct Erdős number.
- On the 5th day, E and F co-authored the paper; this reduces the average Erdős number by 0.5 (i.e., the total is reduced by 4).
- No other paper was written during the conference.
- Each time the change in Erdős number occurs, it occurs only for those who co-authored a paper.
- Each time a participant co-authors a paper, his Erdos number becomes exactly one more than that of the F.

Assume that the Erdos numbers of A, B, C, D, E, F, G and H be  $a, b, c, d, e, f, g$  and  $h$ .

Then from (iv) after the 3rd day:

$$a = c = f + 1;$$

$$\text{And, } a + b + c + d + e + f + g + h = 24$$

5 of them have same Erdős number, and other 3 have distinct numbers. So the other 5 members should have an Erdős number same as that of A and C, i.e.,  $(F + 1)$ .

$$\begin{aligned} \text{Hence, } 5(F + 1) + f + p + q &= 24 \text{ (where } p \text{ and } q \text{ represents the Erdős numbers which are distinct)} \\ &= 6f + p + q = 19 \end{aligned}$$

Hence, the possible values of  $f$  are 1, 2 and 3 only. Now 3 can be discarded because it will give rise to  $p + q = 1$ .

Hence, one of the  $p$  and  $q$  will be 0 (which is not possible).

Let us check for  $f = 2$   

$$p + q = 7$$

Possible values of  $p$  and  $q$  are  $(1 + 6)$ ,  $(2 + 5)$  and  $(3 + 4)$ . None of these is possible.

Hence, for  $f = 1$  and  $a = c = 2$  and other 3 participants will also have their Erdős number as 2.

Now, if  $c = 2$  at the beginning of the conference, then there are 3 other possibilities (F, A and any one of B, D, G and H; who does not have an Erdős number 7) that could have brought the total Erdős number equal to 24, which violates the condition (v) written above. So C must be greater than 2 at the starting.

So at the starting:

$A = \text{infinity}$ ,  $c > 2$ ,  $f = 1$  and  $e = 6$

And one of the  $b$ ,  $d$ ,  $g$  and  $h$  will be 7 and other three will be 2.

At the end:

$a = c = 2$ ,  $f = 1$ ,  $e = 2$

And one of the  $b$ ,  $d$ ,  $g$  and  $h$  will be 7 and other three will be 2.

#### Solution to Q16 to 20:

On the 1st day, the price was Rs 100 per share. Now we can have the following cases:

Cases	1	2	3	4	5	6	7	8	9	10
At the end of 1st day	90	110	90	110	110	90	110	110	90	110
At the end of 2nd day	100	100	80	120	100	100	120	120	100	120
At the end of 3rd day	90	90	90	110	110	110	130	110	110	110
At the end of 4th day	100	100	100	100	100	100	120	120	120	120
At the end of 5th day	110	110	110	110	110	110	110	110	110	110

16. (c) Obviously from case-1, at the end of 3rd day, price of share is Rs 110.

Hence, option (c) is the answer.

17. (b) Obviously from case-5, we get price of share at the end of Day 4 is Rs 100.

Hence, option (b) is the answer.

18. (a) Obviously from case-3, we get price of share at the end of day 3 is Rs 90.

Hence, option (a) is the answer.

19. (d) Obviously from cases 5 and 9, we have:

	Chetan	Michael
110	+10	0
120	+10	+10
110	-10	0
100	-10	0
110	+10	0

	<i>Chetan</i>	<i>Michael</i>
90	-10	0
100	+10	0
110	+10	0
120	+10	+10
110	-10	0

Using 1st table, Chetan has invested Rs 1300 and Michael has invested Rs 1200.

Michael has Rs 100 less than Chetan, so both have same number of shares.

Hence, option (d) is the answer.

20. (d) Obviously from case-7, we get maximum possible increase in combined cash balance at the end of 5th day, that is  $(1200 + 1300 + 1200) = 3700$  for Chetan and  $(-1100 - 1200 + 1300 - 1100 - 1200) = 1300$  for Michael.  
Hence, maximum possible increase in combined balance =  $3700 + 1300 = \text{Rs } 5000$ .  
Hence, option (d) is the answer.

#### Solution to Q21 to 25:

21. (d) Assume that the toll tax at A, B, C and D be  $a, b, c$  and  $d$  respectively. For this question we are required to equalize the cost on each road except SDT.

Hence,  $14 + a = 9 + a + b = 7 + b + c = 10 + d + c$

Or,  $b = 5$

Now,  $14 + a = 12 + c = 10 + d + c$

Or,  $d = 2$  and  $c - a = 2$

Now, from the answer options, only option (d) satisfies the above values, so the correct option is (d).

Alternatively this question can be done by options also.

22. (\*) Now for this question we have to equalize the cost on each road except SBCT.

So,  $14 + a = 9 + a + b = 10 + d + c = 13 + d$

Or,  $b = 5$  and  $c = 3$

Now,  $14 + a = 13 + d$

Or,  $d - a = 1$ .

Now, from the answer options (b) and (c) satisfies the above. So, none of the option given in CAT paper is correct.

Even later on CAT also accepted its mistake and announced both these options as its answer.

More can be seen at: [http://www.iimk.ac.in/TestBooklet\\_SolKey2006.pdf](http://www.iimk.ac.in/TestBooklet_SolKey2006.pdf)

Alternatively this question can be done by options also.

23. (a) So as to minimize the cost, the traffic will be equally divided between the roots SAT, SBAT and SDT. Hence, option (a) is the answer.

24. (c) Minimum cost considering toll tax on any of the given four junctions = Zero. We can say that 100% traffic will be attracted by the route S-B-C-T (Total cost-7). If the cost of this route is increased to 8, condition will remain same. Again if we increase it to 9, then traffic will get distributed into two routes S-B-C-T and S-B-A-T as the costs are same. However still B caters 100% traffic. In order to avoid this, the respective costs of these two routes are increased to 10, then the traffic will get distributed into three routes S-B-C-T, S-B-A-T and S-D-C-T. It can be seen now that traffic will get distributed evenly means 33.33% in each route. Total traffic flow through B =  $33.33\% + 33.33\% = 66.66\%$  that is less than 70%.  
Hence, option (c) is the answer.

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# CAT 2007

## LEARNING Objectives

1. Read the instructions carefully before attempting the questions.
2. Do your rough work on Test Booklet and not on the Answer Sheet.
3. Total Questions = 50
4. There is negative marking.

### ➤ SECTION 1—VERBAL ABILITY

**Direction for questions 1 to 3:** The passage given below is followed by a set of three questions. Choose the most appropriate answer to each question.

#### PASSAGE I

The difficulties historians face in establishing cause-and-effect relations in the history of human societies (are broadly similar to the difficulties facing astronomers, climatologists, ecologists, evolutionary biologists, geologists, and palaeontologists. To varying degrees each of these fields is plagued by the impossibility of performing replicated, controlled experimental interventions, the complexity arising from enormous numbers of variables, the resulting uniqueness of each system, the consequent impossibility of formulating universal laws, and the difficulties of predicting emergent properties and future behaviour. Prediction in history, as in other historical sciences, is most feasible on large spatial scales and over long times, when the unique features of millions of small-scale brief events become averaged out. Just as I could predict the sex ratio of the next

1,000 newborns but not the sexes of my own two children, the historian can recognize factors that made inevitable the broad outcome of the collision between American and Eurasian societies after 13,000 years of separate developments, but not the outcome of the 1960 US presidential election. The details of which candidate said what during a single televised debate in October 1960 could have given the electoral victory to Nixon instead of to Kennedy, but no details of who said what could have blocked the European conquest of Native Americans.

How can students of human history profit from the experience of scientists in other historical sciences? A methodology that has proved useful involves the comparative method and so-called natural experiments. While neither astronomers studying galaxy formation nor human historians can manipulate their systems in controlled laboratory experiments, they both can take advantage of natural experiments, by comparing systems differing in the presence (or in the strong or weak effect) of some putative causative factor. For example, epidemiologists, forbidden to feed large amounts of salt to people experimentally, have still been able to identify effects of high salt intake by comparing groups of humans who already differ greatly in their salt intake; and cultural anthropologists, unable

to provide human groups experimentally with varying resource abundances for many centuries, still study long-term effects of resource abundance on human societies by comparing recent Polynesian populations living on islands differing naturally in resource abundance.

The student of human history can draw on many more natural experiments than just comparisons among the five inhabited continents. Comparisons can also utilize large islands that have developed complex societies in a considerable degree of isolation (such as Japan, Madagascar, Native American Hispaniola, New Guinea, Hawaii, and many others), as well as societies on hundreds of smaller islands and regional societies within each of the continents. Natural experiments in any field whether in ecology or human history, are inherently open to potential methodological criticisms. Those include confounding effects of natural variation in additional variables besides the one of interest, as well as problems in inferring chains of causation from observed correlations between variables. Such methodological problems have been discussed in great detail for some of the historical sciences. In particular, epidemiology, the science of drawing inferences about human diseases by comparing groups of people (often by retrospective historical studies), has for a long time successfully employed formalized procedures for dealing with problems similar to those facing historians of human societies.

In short, I acknowledge that it is much more difficult to understand human history than to understand problems in fields of science where history is unimportant and where fewer individual variables operate. Nevertheless, successful methodologies for analyzing historical problems have been worked out in several fields. As a result, the histories of dinosaurs, nebulae, and glaciers are generally acknowledged to belong to fields of science rather than to the humanities.

- Q 1. Why do islands with considerable degree of isolation provide valuable insights into human history?

  - (a) Isolated islands may evolve differently and this difference is of interest to us.
  - (b) Isolated islands increase the number of observations available to historians.
  - (c) Isolated islands, differing in their endowments and size may evolve differently and this difference can be attributed to their endowments and size.
  - (d) Isolated islands, differing in their endowments and size, provide a good comparison to large islands such as Eurasia, Africa, Americas and Australia.

Q 2. According to the author, why is prediction difficult in history?

  - (a) Historical explanations are usually broad so that no prediction is possible.
  - (b) Historical outcomes depend upon a large number of factors and hence prediction is difficult for each case.
  - (c) Historical sciences, by their very nature, are not interested in a multitude of minor factors, which might be important in a specific historical outcome.

- (d) Historians are interested in evolution of human history and hence are only interested in long-term predictions.

- Q 3. According to the author, which of the following statements would be true?

  - (a) Students of history are missing significant opportunities by not conducting any natural experiments.
  - (b) Students of history are missing significant opportunities by not studying an adequate variety of natural experiments.
  - (c) Complex societies inhabiting large islands provide great opportunities for natural experiments.
  - (d) A unique problem faced by historians is their inability to establish cause and effect relationships.

**Direction for questions 4 to 7:** In each question, there are five sentences/paragraphs. The sentence/paragraph labelled A is in its correct place. The four that follow are labelled B, C, D and E, and need to be arranged in the logical order to form a coherent paragraph/passage. From the given options, choose the most appropriate option.



- Q 5. A. Personal experience of mothering and motherhood are largely framed in relation to two discernible or “official” discourses: the “medical discourse and natural childbirth discourse”. Both of these tend to focus on the “optimistic stories” of birth and mothering and underpin stereotypes of the “good mother”.

B. At the same time, the need for medical expert guidance is also a feature for contemporary reproduction and motherhood. But constructions of good mothering have not always been so conceived and in different contexts may exist in parallel to other equally dominant discourses.

C. Similarly, historical work has shown how what are now taken-for-granted aspects of reproduction and mothering practices result from contemporary “pseudoscientific directives” and “managed constructs”. These changes have led to a reframing

of modern discourses that pattern pregnancy and motherhood leading to an acceptance of the need for greater expert management.

- D. The contrasting, overlapping, and ambiguous strands within these frameworks focus to varying degrees on a woman's biological tie to her child and predisposition to instinctively know and be able to care for her child.
  - E. In addition, a third, "unofficial popular discourse" comprising "old wives" tales and based on maternal experiences of childbirth has also been noted. These discourses have also been acknowledged in work exploring the experiences of those who apparently do not "conform" to conventional stereotypes of the "good mother".
- (a) EDBC      (b) BCED  
 (c) DBCE      (d) EDCB

Q 6. A. Indonesia has experienced dramatic shifts in its formal governance arrangements since the fall of President Soeharto and the close of his centralized, authoritarian "New Order" regime in 1997.

- B. The political system has taken its place in the nearly 10 years since Reforms began. It has featured the active contest for political office among a proliferation of parties at central, provincial and district levels; direct elections for the presidency (since 2004); and radical changes in centre-local government relations towards administrative, fiscal, and political decentralization.
  - C. The mass media, once tidily under Soeharto's thumb, has experienced significant liberalization, as has the legal basis for non-governmental organizations, including many dedicated to such controversial issues as corruption control and human rights.
  - D. Such developments are seen optimistically by a number of donors and some external analysts, who interpret them as signs of Indonesia's political normalization.
  - E. A different group of analysts paint a picture in which the institutional forms have changed, but power relations have not. Vedi Hadiz argues that Indonesia's "democratic transition" has been anything but linear.
- (a) BDEC      (b) CBDE  
 (c) CEBD      (d) DEBC

Q 7. A. I had six thousand acres of land, and had thus got much spare land besides the coffee plantation. Part of the farm was native forest, and about one thousand acres were squatters' land, what the Kikuyu called their shambas.

- B. The squatters' land was more intensely alive than, the rest of the farm, and was changing with the seasons the year round. The maize grew up higher than your head as you walked on the narrow hard-trampled footpaths in between the tall green rustling regiments.

C. The squatters are Natives, who with their families hold a few acres on a white man's farm, and in return have to work for him a certain number of days in the year. My squatters, I think, saw the relationship in a different light, for many of them were born on the farm, and their fathers before them, and they very likely regarded me as a sort of superior squatter on their estates.

- D. The Kikuyu also grew the sweet potatoes that have a vine like leaf and spread over the ground like a dense entangled mat, and many varieties of big yellow and green speckled pumpkins.
  - E. The beans ripened in the fields, were gathered and thrashed by the women, and the maize stalks and coffee pods were collected and burned, so that in certain seasons thin blue columns of smoke rose here and there all over the farm.
- (a) CBDE      (b) CBED  
 (c) BCDE      (d) DBCE

**Direction for questions 8 to 10:** *The passage given below is followed by a set of three questions. Choose the most appropriate answer to each question.*

## PASSAGE II

To discover the relation between rules, paradigms, and normal science, consider first how the historian isolates the particular loci of commitment that have been described as accepted rules. Close historical investigation of a given specialty at a given time discloses a set of recurrent and quasi-standard illustrations of various theories in their conceptual, observational, and instrumental applications. These are the community's paradigms, revealed in its textbooks, lectures, and laboratory exercises. By studying them and by practicing with them, the members of the corresponding community learn their trade. The historian, of course, will discover in addition a penumbra area occupied by achievements whose status is still in doubt, but the core of solved problems and techniques will usually be clear. Despite occasional ambiguities, the paradigms of a mature scientific community can be determined with relative ease.

That demands a second step and one of a somewhat different kind. When undertaking it, the historian must compare the community's paradigms with each other and with its current research reports. In doing so, his object is to discover what isolable elements, explicit or implicit, the members of that community may have abstracted from their more global paradigm and deploy it as rules in their research. Anyone who has attempted to describe or analyze the evolution of a particular scientific tradition will necessarily have sought accepted principles and rules of this sort. Almost certainly, he will have met with at least partial success. But, if his experience has been at all like my own, he will have found the search for rules both more difficult and less satisfying than the search for paradigms. Some of the generalizations he employs to describe the community's shared beliefs will present more problems. Others, however, will seem a shade too strong. Phrased in just that

way, or in any other way he can imagine, they would almost certainly have been rejected by some members of the group he studies. Nevertheless, if the coherence of the research tradition is to be understood in terms of rules, some specification of common ground in the corresponding area is needed. As a result, the search for a body of rules competent to constitute a given normal research tradition becomes a source of continual and deep frustration.

Recognizing that frustration, however, makes it possible to diagnose its source. Scientists can agree that Newton, Lavoisier, Maxwell, or Einstein has produced an apparently permanent solution to a group of outstanding problems and still disagree, sometimes without being aware of it, about the particular abstract characteristics that make those solutions permanent. They can, that is, agree in their identification of a paradigm without agreeing on, or even attempting to produce, a full interpretation or rationalization of it. Lack of a standard interpretation or of a agreed reduction to rules will not prevent a paradigm from guiding research. Normal science can be determined in part by the direct inspection of paradigms, a process that is often aided by but does not depend upon the formulation of rules and assumption. Indeed, the existence of a paradigm need not even imply that any full set of rules exists.

**Q 8.** What is the author attempting to illustrate through this passage?

- (a) Relationships between rules, paradigms, and normal science.
- (b) How a historian would isolate a particular ‘loci of commitment’.
- (c) How a set of shared beliefs evolves into a paradigm.
- (d) Ways of understanding a scientific tradition.

**Q 9.** The term ‘loci of commitment’ as used in the passage would most likely correspond with which of the following?

- (a) Loyalty between a group of scientists in a research laboratory.
- (b) Loyalty between groups of scientists across research laboratories.
- (c) Loyalty to a certain paradigm of scientific inquiry.
- (d) Loyalty to global patterns of scientific inquiry.

**Q 10.** The author of this passage is likely to agree with which of the following?

- (a) Paradigms almost entirely define a scientific tradition.
- (b) A group of scientists investigating a phenomenon would benefit by defining a set of rules.
- (c) Acceptance by the giants of a tradition is a sine qua non for a paradigm to emerge.
- (d) Choice of isolation mechanism determines the type of paradigm that may emerge from a tradition.

**Direction for questions 11 to 13:** In each question, there are five sentences or parts of sentences that form a

**paragraph. Identify the sentence(s) or part(s) of sentence(s) that is/are correct in terms of grammar and usage. Then, choose the most appropriate option.**

**Q 11.** A. When I returned to home, I began to read  
B. everything I could get my hand on about Israel.

- C. That same year Israel’s Jewish Agency sent  
D. a Shaliach a sort of recruiter to Minneapolis.

- E. I became one of his most active devotees.  
(a) C and E      (b) C only  
(c) E only      (d) B, C and E

**Q 12.** A. So once an economy is actually in recession,  
B. the authorities can, in principle, move the economy  
C. out of slump—assuming hypothetically  
D. that they know how to—by a temporary stimuli.

- E. In the longer term, however, such policies have no  
affect on the overall behaviour of the economy.  
(a) A, B and E      (b) B, C and E  
(c) C and D      (d) E only

**Q 13.** A. It is sometimes told that democratic  
B. government originated in the city-states  
C. of ancient Greece. Democratic ideals have been  
handed to us from that time.  
D. In truth, however, this is an unhelpful assertion.  
E. The Greeks gave us the word, hence did not provide  
us with a model.  
(a) A, B and D      (b) B, C and D  
(c) B and D      (d) B only

**Direction for questions 14 to 16:** The passage given below is followed by a set of three questions. Choose the most appropriate answer to each question.

### PASSAGE III

Every civilized society lives and thrives on a silent but profound agreement as to what is to be accepted as the valid mould of experience. Civilization is a complex system of dams, dykes, and canals warding off, directing, and articulating the influx of the surrounding fluid element; a fertile fenland, elaborately drained and protected from the high tides of chaotic, unexercised, and inarticulate experience. In such a culture, stable and sure of itself within the frontiers of ‘naturalized’ experience, the arts wield their creative power not so much in width as in depth. They do not create new experience, but deepen and purify the old. Their works do not differ from one another like a new horizon from a new horizon but like a madonna from a madonna.

The periods of art which are most vigorous in creative passion seem to occur when the established pattern of experience loosens its rigidity without as yet losing its force. Such a period was the Renaissance, and Shakespeare its poetic consummation. Then it was as though the discipline of the old order gave depth to the excitement of the breaking away the depth of joy and tragedy, of incomparable conquests and irredeemable losses. Adventurers of experience set out as though in lifeboats to rescue and bring back to the shore treasures of knowing

and feeling which the old order had left floating on the high seas. The works of the early Renaissance and the poetry of Shakespeare vibrate with the compassion for life experience in danger of dying from exposure and however, elusively, it still knew of harbours and anchors, of homes to which to return, and of barns in which to store the harvest. The exploring spirit of art was in the depths of its consciousness still aware of a scheme of things into which to fit its exploits and creations.

But the more this scheme of things loses its stability, the more boundless and uncharted appears the ocean of potential exploration. In the blank confusion of infinite potentialities flotsam of significance gets attached to jetsam of experience; for everything is sea, everything is at sea—

.... The sea is all about us;  
The sea is the land's edge also, the granite  
Into which it reaches, the beaches where it tosses  
Its hints of earlier and other creation....

—and Rilke tells a story in which, as in T.S. Eliot's poem, it is again the sea and the distance of 'other creation' that becomes the image of the poet's reality. A rowing boat sets out on a difficult passage. The oarsmen labour in exact rhythm. There is no sign yet of the destination. Suddenly a man, seemingly idle, breaks out into song. And if the labour of the oarsmen meaninglessly defeats the real resistance of the real waves, it is the idle single who magically conquers the despair of apparent aimlessness. While the people next to him try to come to grips with the element that is next to them, his voice seems to bind the boat to the farthest distance so that the farthest distance draws it towards itself. I do not know why and how,' is Rilke's conclusion, 'but suddenly I understood the situation of the poet, his place and function in this age. It does not matter if one denies him every place—except this one. There one must tolerate him.'

**Q 14.** In the passage, the expression "like a madonna from a madonna" alludes to

- (a) The difference arising as a consequence of artistic license.
- (b) The difference between two artistic interpretations.
- (c) The difference between 'life' and 'interpretation of life'.
- (d) The difference between 'width' and 'depth' of creative power.

**Q 15.** The sea and 'other creation' leads Rilke to

- (a) Define the place of the poet in his culture.
- (b) Reflect on the role of the oarsman and the singer.
- (c) Muse on artistic labour and its aimlessness.
- (d) Delve into natural experience and real waves.

**Q 16.** According to the passage, the term "adventurers of experience" refers to

- (a) Poets and artists who are driven by courage.
- (b) Poets and artists who create their own genre.
- (c) Poets and artists of the Renaissance.
- (d) Poets and artists who revitalize and enrich the past for us.

**Direction for questions 17 to 19:** *Each of the following questions has a paragraph from which the last sentence has been deleted. From the given options, choose the sentence that completes the paragraph in the most appropriate way.*

**Q 17.** Characters are also part of deep structure. Characters tie events in a story together and provide a thread of continuity and meaning. Stories can be about individuals, groups, projects, or whole organizations, so from an organizational studies perspective, the focal actor(s) determine the level and unit of analysis used in a study. Stories of mergers and acquisitions, for example, are commonplace. In these stories whole organizations are personified as actors. But these macro-level stories usually are not told from the perspective of the macro-level participants, because whole organizations cannot narrate their experiences in the first person.

- (a) More generally, data concerning the identities and relationships of the characters in the story are required, if one is to understand role structure and social networks in which that process is embedded.
- (b) Personification of a whole organization abstracts away from the particular actors and from traditional notions of level of analysis.
- (c) The personification of a whole organization is important because stories differ depending on who is enacting various events.
- (d) Every story is told from a particular point of view, with a particular narrative voice, which is not regarded as part of the deep structure.

**Q 18.** Nevertheless, photographs still retain some of the magical allure that the earliest daguerreotypes inspired. As objects, our photographs have changed; they have become physically flimsier as they have become more technologically sophisticated. Daguerre produced pictures on copperplates; today many of our photographs never become tangible things, but instead remain filed away on computers and cameras, part of the digital ether that envelops the modern world. At the same time, our patience for the creation of images has also eroded. Children today are used to being tracked from birth by digital cameras and video recorders and they expect to see the results of their poses and performances instantly. The space between life as it is being lived and life as it is being displayed shrinks to a mere second.

- (a) Yet, despite these technical developments, photographs still remain powerful because they are reminders of the people and things we care about.
- (b) Images, after all, are surrogates carried into battle by a soldier or by a traveler on holiday.
- (c) Photographs, be they digital or traditional, exist to remind us of the absent, the beloved, and the dead.

- (d) In the new era of the digital image, the images also have a greater potential for fostering falsehood and trickery, perpetuating fictions that seem so real we cannot tell the difference.

Q 19. Mma Ramotswe has a detective agency in Africa, at the foot of Kgale Hill. These were its assets: a tiny white van, two desks, two chairs, a telephone, and an old typewriter. Then there was a teapot, in which Mma Ramotswe—the only private lady detective in Botswana-brewed red-bush tea. And three mugs—one for herself, one for her secretary, and one for the client. What else does a detective agency really need? Detective agencies rely on human intuition and intelligence, both of which Mma Ramotswe had in abundance.

(a) But there was also the view, which again would appear on no inventory.

(b) She had an intelligent secretary too.

(c) No inventory would ever include those, of course.

(d) She was a good detective and a good woman.

**Direction** for questions 20 to 22: *The passage given ahead is followed by a set of three questions. Choose the most appropriate answer to each question.*

## PASSAGE IV

Human Biology does nothing to structure human society. Age may enfeeble us all, but cultures vary considerably in the prestige and power they accord to the elderly. Giving birth is a necessary condition for being a mother, but it is not sufficient. We expect mothers to behave in maternal ways and to display appropriately maternal sentiments. We prescribe a clutch of norms or rules that govern the role of a mother. That the social role is independent of the biological base can be demonstrated by going back three sentences. Giving birth is certainly not sufficient to be a mother but, as adoption and fostering show, it is not even necessary!

The fine detail of what is expected of a mother or a father or a dutiful son differs from culture to culture, but everywhere behaviour is coordinated by the reciprocal nature of roles. Husbands and wives, parents and children, employers and employees, waiters and customers, teachers and pupils, war-lords and followers; each makes sense only in its relation to the other. The term 'role' is an appropriate one, because the metaphor of an actor in a play neatly expresses the rule-governed nature or scripted nature of much of social life and the sense that society is a joint production. Social life occurs only because people play their parts (and that is as true for war and conflicts as for peace and love) and those parts make sense only in the context of the overall show. The drama metaphor also reminds us of the artistic license available to the players. We can play a part straight or, as the following from J.P. Sartre conveys, we can ham it up.

Let us consider this waiter in the cafe. His movement is quick and forward, a little too precise, a little too rapid. He comes towards the patrons with a step a little too quick. He bends forward a little too eagerly; his voice, his eyes express an interest a little too solicitous for the order of the customer.

Finally there he returns, trying to imitate in his walk the inflexible stiffness of some kind of automaton while carrying his tray with the recklessness of a tightrope-walker....All his behaviour seems to us a game....But what is he playing? We need not watch long before we can explain it: he is playing at being a waiter in a cafe.

The American sociologist Erving Goffman built an influential body of social analysis on elaborations of the metaphor of social life as drama. Perhaps his most telling point was that it is only through acting out a part that we express character. It is not enough to be evil or virtuous; we have to be seen to be evil or virtuous.

There is distinction between the roles we play and some underlying self. Here we might note that some roles are more absorbing than others. We would not be surprised by the waitress who plays the part in such a way as to signal to us that she is much more than her occupation. We would be surprised and offended by the father who played his part ‘tongue in cheek’. Some roles are broader and more far-reaching than others. Describing someone as a clergyman or faith healer would say far more about that person than describing someone as a bus driver.

- Q 20. What is the thematic highlight of this passage?

  - (a) Human behaviour depends on biological linkages and reciprocal roles.
  - (b) In the absence of reciprocal roles, biological linkages provide the mechanism for coordinating human behaviour.
  - (c) Human behaviour is independent of biological linkages and reciprocal roles.
  - (d) In the absence of strong biological linkages, reciprocal roles provide the mechanism for coordinating human behaviour.

Q 21. Which of the following would have been true if biological linkages structured human society?

  - (a) The role of mother would have been defined through her reciprocal relationship with her children.
  - (b) We would not have been offended by the father playing his role ‘tongue in cheek’.
  - (c) Women would have adopted and fostered children rather than giving birth to them.
  - (d) Even if warlords were physically weaker than their followers, they would still dominate them.

Q 22. It has been claimed in the passage that “some roles are more absorbing than others”. According to the passage, which of the following seem(s) appropriate reason(s) for such a claim?

  - A. Some roles carry great expectations from the society preventing manifestation of the true self.
  - B. Society ascribes so much importance to some roles that the conception of self may get aligned with the roles being performed.
  - C. Some roles require development of skill and expertise leaving little time for manifestation of self.
  - (a) A only
  - (b) B only
  - (c) C only
  - (d) A and B

**Direction for questions 23 to 25:** In each question, there are four sentences. Each sentence has pairs of words/phrases that are italicized and highlighted. From the italicized and highlighted word(s)/phrase(s), select the most appropriate word(s)/phrase(s) to form correct sentences. Then, from the options given, choose the best one.

Q 23. The cricket council that **was** [A]/**were** [B] elected last March **is** [A]/**are** [B] at sixes and sevens over new rules. The critics **censored** [A]/**censured** [B] the new movie because of its social unacceptability.

Amit's explanation for missing the meeting was **credulous** [A]/**credible** [B].

She coughed **discreetly** [A]/**discretely** [B] to announce her presence.

- |           |           |
|-----------|-----------|
| (a) AABBA | (b) AAABA |
| (c) BBBBA | (d) BBAAA |

Q 24. **The further** [A]/**farther** [B] he pushed himself, the more disillusioned he grew.

For the crowds it was more of a **historical** [A]/**historic** [B] event; for their leader, it was just another day.

The old man has a healthy **distrust** [A]/**mistrust** [B] for all new technology. This film is based on a **real** [A]/**true** [B] story.

One suspects that the **compliment** [A]/**complement** [B] was backhanded.

- |           |           |
|-----------|-----------|
| (a) BABAB | (b) ABBBA |
| (c) BAABA | (d) BBAAB |

Q 25. **Regrettably** [A]/**Regretfully** [B] I have to decline your invitation.

I am drawn to the poetic, **sensual** [A]/**sensuous** [B] quality of her paintings.

He was **besides** [A]/**beside** [B] himself with rage when I told him what I had done.

After brushing against a **stationary** [A]/**stationery** [B] truck my car turned turtle.

As the water began to rise **over** [A]/**above** [B] the danger mark, the signs of an imminent flood were clear.

- |           |
|-----------|
| (a) BAABA |
| (b) AAABA |
| (c) BBBAB |
| (d) BBAAB |

# ANSWERS



## SECTION 1—VERBAL ABILITY

Q. No.	Answer						
1	(b)	2	(c)	3	(b)	4	(a)
5	(c)	6	(a)	7	(d)	8	(b)
9	(b)	10	(c)	11	(c)	12	(c)
13	(b)	14	(c)	15	(d)	16	(b)
17	(d)	18	(d)	19	(c)	20	(b)
21	(c)	22	(a)	23	(b)	24	(b)
25	(d)						

## HINTS AND EXPLANATIONS

### SECTION 1—VERBAL ABILITY



- (b) Islands with considerable degree of isolation provide valuable insights as a society has developed despite of all geographical disadvantages option number 4 depicts the same idea that "...differing in their... Australia" although it has used the name of five continents which is not mentioned in the paragraph but the number is mentioned.
- (c) The answer is explicitly given in 3rd, 4th & 5th line of the first paragraph.
- (b) Options (a) and (c) can be eliminated since the author has not stated anything regarding what the students of history are doing. He has only stated as to what can be effectively done. Option (d) is wrong because of the word 'unique'. Option (b) can be inferred from the first half of the last paragraph.
- (a) CD is a clear connection. Statement A talks of highly educated women being in stronger position in the labour market and having higher rates of marriage. This is conveniently followed by E stating "Indeed, just as crime....economic approach to the evolution of family structures". This is followed by B stating "some works support..." CD is a link with "And, as with crime.." and But regardless of the conclusion.. Answer is EBCD.
- (c) A states "personal experience..." and this is ideally followed by E which states "In addition..." and then this is verified by D which states "the contrasting..." CB is a clue as C talk of contemporary and modern discourses and B continues with may exist in parallel to other equally dominant discourses. Answer is EDBC.

- (a) Statement A starts with Indonesia experiencing dramatic shifts after Soeharto. The main clue in the question was use of Reformasi which is deduced to be a paper. So B has to come after C which talks of the mass media...Also DE is connected as D talks of the view points of donors and external analysts followed by E which talks of the scepticism of a different group of analysts. So with CB and DE, we get (b) as the option. Answer is CBDE.
- (d) AC and BED were clues. Since A talks about the author's land being occupied by Squatters and C continues by explaining who the squatters were. statement talks about maize being grown by the squatters and e continues with the cultivation of the maize and D ends with The Kikuyu also growing sweet potatoes and pumpkins. Answer is CBED.
- (b) Option (a). The passage traces the relationship between rules, paradigms and normal sciences in the three paragraphs given. Although Option (c) might look to be close but since the author does end with normal science with regards to paradigms, we can safely take Option (a) as our answer.
- (b) As evident from the 1st paragraph, the author states in the last line that..."mature scientific community..."
- (c) Option (a) can be disregarded as paradigms help in defining a scientific tradition and themselves do not define them. Option (b) can be eliminated as rules existing has been negated by the author in the last paragraph. Option (c) is also negated in the last paragraph. Option (d) does not connect to the passage at all.
- (c) A is incorrect because "returned to" is wrong. We can simply say returned home. B is the case of redundancy.

On and about used together is incorrect. Then, “The same” should be there instead of “that same”. D is wrong; we need a comma after ‘a Shaliach’. Answer is E only.

12. (c) A seems to be correct but since the answer options do not include A in them, we are forced to choose the only appropriate one, i.e., B only. C is incorrect, hyphen is not required. Instead, Semi-colon should be used. D is incorrect, because hyphen is not required and can be rewritten as how to go by a temporary stimulus. In statement E, we need to use effect (a change which is a result or consequence of an action or other cause) and not Affect (have an effect on; make a difference to). Answer is B only.
13. (b) In statement A the word “democratic” should be preceded by an article “the”. In statement C the phrase “...have been handed...” should be replaced by “...have been handed over...”. In statement E is explicitly incorrect. Answer is B and D.
14. (c) The paragraph in the last line is trying to generate an idea of personification. From the last 3 lines of the paragraph we can understand, that its tough to give macro level stories from the perspective of the macro level participants. So its textual device we use to make it more comprehensible.
15. (d) The answer is in the last paragraph, where the poet uses the term “other creations” and in the third line it is given that: There is no sign of the destination. And then some example follow it explaining the same.
16. (b) In the second paragraph the line between “Such a period..... genius of the age”. Gives the answer to the question.
17. (d) The paragraph in the last line is trying to generate an idea of personification. From the last 3 lines of the paragraph we can understand, that its tough to give macro level stories from the perspective of the macro level participants. So its textual device we use to make it more comprehensible.
18. (d) Answer is Yet, despite these technical developments, photographs still remain powerful because they are reminders of the people and things we care about.
19. (c) No inventory would ever include those, of course, as per the source.
20. (b) The author has stated throughout the passage what defines behavior in society and has also given a direct

clue in the second paragraph. The rest of the options are negated in the passage.

21. (c) As clearly stated in the para mentioning roles, the opposite of how we would react if a father acted in a such a manner.
22. (a) The complete tone of the passage is about the same phrase, according to which the “self” of a person gets so mixed or aligned with the occupation that the occupation becomes the “self”. The examples of clergy man/bus driver represent the same idea and hence the right answer is: B only.
23. (b) The correct usage of the sentences has both a grammatical component and a word usage component as well. The cricket council will take singular so we will choose was and continue the same with the helping verb is. The critics will censure as it means criticize and not censor which means cut or delete. Amit’s explanation was credible which means believable or plausible and not credulous which means gullible. She coughed discreetly which means doing something in a careful or circumspect manner and not discrete which means individually distinct and separate. Answer is AABBA.
24. (b) The further meaning extent or degree and not farther meaning distance he pushed himself....For the crowds it was more of a historic (important, significant) event and not historical (documented, ancient). The old man has a healthy distrust (regard with suspicion) for all new technology and not mistrust (lack of trust, mistrust also takes a ‘of’ and not for). The film is based on a true (in accordance to fact or reality) and not real (actual, existent). One suspects that the compliment (flattering remark, praise) and not complement (accessory, supplement) was backhanded. Answer is ABABA.
25. (d) Regretfully (in a regretful manner) I have to decline your invitation and not regrettably (giving rise to regret, undesirable). I am drawn to the poetic, sensuous (aesthetic, lush) quality of her paintings and not sensual (physical, passionate). He was beside himself (beside oneself means overcome with) with rage and not besides (in addition to, apart). After brushing against a stationary (not moving) truck.. and not stationery (writing wares). As the water began to rise above (extending upwards towards) the danger mark.. and not over (extending directly upwards from). Answer is BBBAB.

## ➤ SECTION 2—LOGICAL REASONING

**Direction for questions 1 to 4:** Answer the following questions based on the information given below:

The table below shows the comparative costs, (in US dollars) of major surgeries in USA and selected few Asian countries.

**Comparative Costs in USA and Some Asian Countries (in US Dollars '000)**

Procedure	USA	India	Thailand	Singapore	Malaysia
Heart Bypass	1,30,000	10,000	11,000	18,500	9,000
Heart Valve Replacement	1,60,000	9,000	10,000	12,500	9,000
Angioplasty	57,000	11,000	13,000	13,000	11,000
Hip Replacement	43,000	9,000	12,000	12,000	10,000
Hysterectomy	20,000	3,000	4,500	6,000	3,000
Knee Replacement	40,000	8,500	1,000	13,000	8,000
Spinal Fusion	62,000	5,500	7,000	9,000	6,000

The equivalent of one US Dollar in the local currencies is given below:

**1 US Dollar Equivalent**

India	40.928	Rupees
Malaysia	3.51	Ringits
Thailand	32.89	Bahts
Singapore	1.53	S Dollars

A consulting firm found that the quality of the health services were not the same in all the countries above. A poor quality surgery may have significant repercussions in future, resulting in more cost in correcting mistakes. The cost of poor quality of surgery is given in the table below:

**Comparative Cost of Poor Quality in USA and Some Asian Countries (in US Dollars '000)**

Procedure	USA	India	Thailand	Singapore	Malaysia
Heart Bypass	0	3	3	2	4
Heart Valve Replacement					
Replacement	0	5	4	5	5
Angioplasty	0	5	5	4	6
Hip Replacement	0	7	5	5	8
Hysterectomy	0	5	6	5	4
Knee Replacement	0	9	6	4	4
Spinal Fusion	0	5	6	5	6

- Q 1. Approximately, what difference in amount in Bahts will it make to a Thai citizen if she were to get a hysterectomy done in India instead of in her native country, taking into account the cost of poor quality? It costs 7500 Bahts for one-way travel between Thailand and India.
- (a) 23500      (b) 40500      (c) 57500      (d) 67500
- Q 2. Taking the cost of poor quality into account, which country/countries will be the most expensive for knee replacement?
- (a) India      (b) Thailand      (c) Malaysia      (d) Singapore
- Q 3. A US citizen is hurt in an accident and requires an angioplasty, hip replacement and a knee replacement. Cost of foreign travel and stay is not a consideration since the government will take care of it. Which country will result in the cheapest package, taking cost of poor quality into account?
- (a) India      (b) Thailand      (c) Malaysia      (d) Singapore
- Q 4. The rupee value increases to Rs 35 for a US Dollar, and all other things including quality, remain the same. What is the approximate difference in cost, in US Dollars, between Singapore and India for a Spinal Fusion, taking this change into account?
- (a) 700      (b) 2500      (c) 4500      (d) No difference

**Direction for questions 5 to 9: Answer the following questions based on the information given below:**

A low-cost airline company connects ten Indian cities, A to J. The table below gives the distance between a pair of airports and the corresponding price charged by the company. Travel is permitted only from a departure airport to an arrival airport. The customers do not travel by a route where they have to stop at more than two intermediate airports.

Sector No.	Airport of Departure	Airport of Arrival	Distance between the Airports (km)	Price (Rs)
1	A	B	556	670
2	A	C	790	1350
3	A	D	850	1250
4	A	E	1245	1600
5	A	F	1345	1700
6	A	G	1350	2450
7	A	H	1950	1850
8	B	C	1650	2000
9	B	H	1750	1900
10	B	I	2100	2450
11	B	J	2300	2275
12	C	D	460	2275
13	C	F	410	430
14	C	G	910	1100
15	D	E	540	590
16	D	F	625	700
17	D	G	640	750
18	D	H	950	1250
19	D	J	1650	2450
20	E	F	1250	1700

<i>Sector No.</i>	<i>Airport of Departure</i>	<i>Airport of Arrival</i>	<i>Distance between the Airports (km)</i>	<i>Price (Rs)</i>
21	E	G	970	1150
22	E	H	850	875
23	F	G	900	1050
24	F	I	875	950
25	F	J	970	1150
26	G	I	510	550
27	G	J	830	890
28	H	I	790	970
29	H	J	400	425
30	I	J	460	540

- Q 5. What is the lowest price, in rupees, a passenger has to pay for travelling by the shortest route from A to J?  
(a) 2275                   (b) 2850                   (c) 2890                   (d) 2930

Q 6. The company plans to introduce a direct flight between A and J. The market research results indicate that all its existing passengers traveling between A and J will use this direct flight if it is priced 5% below the minimum price that they pay at present. What should the company charge approximately in rupees, for this direct flight?  
(a) 1991                   (b) 2161                   (c) 2707                   (d) 2745

Q 7. If the airports C, D and H are closed down owing to security reasons, what would be minimum price, in rupees, to be paid by a passenger travelling from A to J?  
(a) 2275                   (b) 2615                   (c) 2850                   (d) 2945

Q 8. If the prices include a margin of 10% over the total cost that the company incurs, what is the minimum cost per kilometer that the company incurs in flying from A to J?  
(a) 0.77                   (b) 0.88                   (c) 0.99                   (d) 1.06

Q 9. If the prices include a margin of 15% over the total cost that the company incurs, which among the following is the distance to be covered in flying from A to J that minimizes the total cost per kilometer for the company?  
(a) 2170                   (b) 2180                   (c) 2315                   (d) 2350

**Direction for questions 10 to 13:** Answer the following questions based on the information given below:

A health-drink company's R and D department is trying to make various diet formulation, which can be used for certain specific purposes. It is considering choice of 5 alternative ingredients (O, P, Q, R and S), which can be used in different proportion in the formulation. The table below gives the composition of these ingredients. The cost per unit of each of these ingredients is O: 150, P: 50, Q: 200, R: 500, S: 100.

<i>Ingredient</i>	<i>Carbohydrate</i>	<i>Composition Protein</i>	<i>Fat</i>	<i>Minerals</i>
	%	%	%	%
O	50	30	10	10
P	80	20	0	0
Q	10	30	50	10
R	5	50	40	5
S	45	50	0	5

- Q 10. In what proportion P, Q and S should be mixed to make a diet having at least 60% carbohydrate at the lowest per unit cost?  
 (a) 2 : 1 : 3      (b) 4 : 1 : 2      (c) 2 : 1 : 4      (d) 4 : 1 : 1
- Q 11. The company is planning to launch a balanced diet required for growth needs of adolescent children. This diet must contain at least 30% each of carbohydrate and proteins, no more than 25% fat and at least 5% minerals. Which one of the following combinations of equally mixed ingredients is feasible?  
 (a) O and P      (b) R and S      (c) P and S      (d) O and S
- Q 12. For a recuperating patient, the doctor recommended a diet containing 10% minerals and at least 30% proteins. In how many different ways can we prepare this diet by mixing at least two ingredients?  
 (a) One      (b) Two      (c) Three      (d) Four
- Q 13. Which among the following is the formulation having the lowest cost per unit for a diet having 10% fat and at least 30% proteins? The diet has to be formed by mixing two ingredients.  
 (a) P and Q      (b) P and S      (c) P and R      (d) Q and S

**Direction for questions 14 to 17:** *Each question is followed by two statements, A and B. Answer each question using the following instruction;*

Mark (a): if the question can be answered by using the statement A alone but not by using the statement B alone.

Mark (b): if the question can be answered by using the statement B alone but not by using the statement A alone.

Mark (c): if the question can be answered by using either of the statement alone.

Mark (d): if the question can be answered by using both the statements together but not by either of the statement alone.

Mark (e): if the question cannot be answered on the basis of the two statement.

- Q 14. Thirty per cent of the employees of a call centre are males. Ten per cent of the female employees have an engineering background. What is the percentage of male employees with engineering background?  
 A: Twenty five per cent of the employees have engineering background.  
 B: Number of male employees having an engineering background is 20% more than the number of female employees having an engineering background.
- Q 15. In a football match, at the half-time, Mahindra and Mahindra Club was trailing by three goals. Did it win the match?  
 A: In the second-half Mahindra and Mahindra Club scored four goals.  
 B: The opponent scored four goal in the match.
- Q 16. In a particular school, sixty students were athletes. Ten among them were also among the top academic performers. How many top academic performers were in the school?  
 A: Sixty per cent of the top academic performers were not athletes.  
 B: All the top academic performers were not necessarily athletes.
- Q 17. Five student Atul, Bal, Chetan, Dev and Ernesto were the only ones who participated in a quiz contest. They were ranked based on their scores in the contest. Dev got a higher rank as compared to Ernesto, while Bala got a higher rank as compared to Chetan. Chetan's rank was lower than the median. Who among the five got the highest rank?  
 A: Atul was the last rank holder.  
 B: Bala was not among the top two rank holders.

**Direction for questions 18 to 21:** *Answer the following questions based on the information given below:*

The following table shows the break-up of actual costs incurred by a company in last five years (year 2002 to year 2006) to produce a particular product.

	Year 2002	Year 2003	Year 2004	Year 2005	Year 2006
Volume of production and sale (units) Cost (Rs)	1,000	900	1,100	1,200	1,200
Material	50,000	45,100	55,200	59,900	60,000
Labour	20,000	18,000	22,100	24,150	24,000
Consumables	2,000	2,200	1,800	1,600	1,400

	<i>Year 2002</i>	<i>Year 2003</i>	<i>Year 2004</i>	<i>Year 2005</i>	<i>Year 2006</i>
Rent of building	1,000	1,000	1,100	1,100	1,200
Rates and taxes	400	400	400	400	400
Repair and maintenance expenses	800	820	780	790	800
Operating cost of machines	30,000	27,000	33,500	36,020	36,000
Selling and marketing expenses	5,750	5,800	5,800	5,750	5,800

The production capacity of the company is 2000 units. The selling price for the year 2006 was Rs 125 per unit. Some costs change almost indirect proportion to the change in volume of production, while others do not follow any obvious pattern of change with respects to the volume of production and hence, are considered fixed. Using the information provided for the year 2006 as the basis for projecting the figures for the year 2007, answer the following questions:

- Q 18. What is the approximate cost per unit in rupees, if the company produces and sells 1400 units in the year 2007?  
(a) 104                   (b) 107                   (c) 110                   (d) 115

Q 19. What is the minimum number of units that the company needs to produce and sell to avoid any loss?  
(a) 313                   (b) 350                   (c) 384                   (d) 747

Q 20. If the company reduce the price by 5%, it can produce and sell as many units as it desires. How many units the company should produce to maximize its profit?  
(a) 1400                   (b) 1600                   (c) 1800                   (d) 2000

Q 21. Given that the company cannot sell more than 1700 units, and it will have to reduce the price by Rs 5 for all units, if it wants to sell more than 1400 units, what is the maximum profit, in rupees, that the company can earn?  
(a) 25,400               (b) 24,400               (c) 31,400               (d) 32,900

**Direction for questions 22 to 25:** Answer the following questions based on the information given below:

The proportion of male students and the proportion of vegetarian student in a school are given below. The school has a total of 800 students, 80% of whom are in the Secondary Section and rest equally divided between Class 11 and 12.

	<i>Male (M)</i>	<i>Vegetarian (V)</i>
Class 12	0.60	
Class 11	0.55	0.50
Secondary Section		0.55
Total	0.475	0.53

# ANSWERS



## SECTION 2—LOGICAL REASONING

Q. No.	Answer						
1	(d)	2	(a)	3	(c)	4	(d)
5	(a)	6	(b)	7	(c)	8	(b)
9	(b)	10	(d)	11	(d)	12	(a)
13	(d)	14	(c)	15	(e)	16	(e)
17	(d)	18	(b)	19	(c)	20	(d)
21	(b)	22	(b)	23	(d)	24	(a)
25	(d)						

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# CAT 2008



## LEARNING Objectives

1. Read the instructions carefully before attempting the questions.
2. Do your rough work on Test Booklet and not on the Answer Sheet.
3. Total Questions = 65
4. There is negative marking.

### ➤ SECTION 1—VERBAL ABILITY

**Direction for questions 1 to 4:** In each of the following questions, there are sentences that form a paragraph. Identity the sentence(s) or part(s) of sentence(s) that is correct in terms of grammar and usage (including spelling, punctuation and logical consistency). Then, choose the most appropriate option.

- Q 1. A. In 1849, a poor Bavarian immigrant named Levi Strauss  
B. landed in San Francisco, California,  
C. at the invitation of his brother-in-law David Stem  
D. owner of dry goods business.  
E. This dry goods business would later became known as Levi Strauss and Company.  
(a) B only                   (b) B and C  
(c) A and B               (d) A only
- Q 2. A. In response to the allegations and condemnation pouring in,  
B. Nike implemented comprehensive changes in their labour policy.

- C. Perhaps sensing the rising tide of global labour concerns,  
D. from the public would become a prominent media issue,  
E. Nike sought to be a industry leader in employee relations.  
(a) D and E               (b) D only  
(c) A and E               (d) A and D

- Q 3. A. Charges and countercharges mean nothing  
B. to the few million who have lost their home.  
C. The nightmare is far from over, for the government  
D. is still unable to reach hundreds who are marooned.  
E. The death count have just begun.  
(a) A only               (b) C only  
(c) A and C               (d) A, C and D

- Q 4. A. I did not know what to make of you.  
B. Because you'd lived in India, I associate you more with my parents than with me.  
C. And yet you were unlike my cousins in Calcutta, who seem so innocent and obedient when I visited them.

- D. You were not curious about me in the least.  
 E. Although you did make effort to meet me.  
 (a) A only                   (b) A and B  
 (c) A and E               (d) A and D

**Direction for questions 5 to 8:** In each question, there are five sentences. Each sentence has a pair of words that are italicized and highlighted. From the italicized and highlighted words, select the most appropriate words (A or B) to form correct sentences. The sentences are followed by options that indicate the words, which may be selected to correctly complete the set of sentences. From the options given, choose the most appropriate one.

Q 5. Anita wore a beautiful **broach** [A]/**brooch** [B] on the lapel of her jacket.

If you want to complain about the amenities in your neighbourhood, please meet your **councillor** [A]/**counsellor** [B].

I would like your **advice** [A]/**advise** [B] on which job I should choose.

The last scene provided a **climactic** [A]/**climatic** [B] ending to the film.

Jeans that **flair** [A]/**flare** [B] at the bottom are in fashion these days.

- (a) BABAA                   (b) BABAB  
 (c) BAAAB               (d) ABABA

Q 6. The cake had lots of **currents** [A]/**currants** [B] and nuts in it.

If you engage in such **exceptional** [A]/**exceptionable** [B] behaviour, I will be forced to punish you.

He has the same capacity as an adult to **consent** [A]/**assent** [B] to surgical treatment.

The minister is **obliged** [A]/**compelled** [B] to report regularly to a parliamentary board.

His analysis of the situation is far too **sanguine** [A]/**genuine** [B].

- (a) BBABA                   (b) BBAAA  
 (c) BBBBA               (d) ABBAB

Q 7. She managed to bite back the **ironic** [A]/**caustic** [B] retort on the tip of her tongue.

He gave an impassioned and **valid** [A]/**cogent** [B] plea for judicial reform.

I am not **adverse** [A]/**averse** [B] to helping out.

The **coupé** [A]/**coup** [B] broke away as the train climbed the hill.

They heard the bells **peeling** [A]/**pealing** [B] far and wide.

- (a) BBABA  
 (b) BBBAB  
 (c) BAABB  
 (d) ABBA

Q 8. We were not successful in **defusing** [A]/**diffusing** [B] the Guru's ideas.

The students **baited** [A]/**bated** [B] the instructor with irrelevant questions.

The **hoard** [A]/**horde** [B] rushed into the campus..

The prisoner's **interment** [A]/**internment** [B] came to an end with his early release.

The hockey team could not deal with his **unsociable** [A]/**unsocial** [B] tendencies.

- (a) BABBA  
 (b) BBABB  
 (c) BABAA  
 (d) ABBAB

**Direction for questions 9 to 12:** In each of the questions, a word has been used in sentences in five different ways. Choose the option corresponding to the sentence in which the usage of the word is incorrect or inappropriate.

Q 9. RUN

- (a) I must run fast to catch up with him.  
 (b) Our team scored a goal against the run of play.  
 (c) You cannot run over him like that.  
 (d) The newly released book is enjoying a popular run.

Q 10. ROUND

- (a) The police fired a round of tear gas shells.  
 (b) The shop is located round the corner.  
 (c) We took a ride on the merry-go-round.  
 (d) I shall proceed further only after you come round to admitting it.

Q 11. BUCKLE

- (a) After the long hike our knees were beginning to buckle.  
 (b) The horse suddenly broke into a buckle.  
 (c) The accused did not buckle under police interrogation.  
 (d) Sometimes, an earthquake can make a bridge buckle.

Q 12. FILE

- (a) You will find the paper in the file under C.  
 (b) I need to file an insurance claim.  
 (c) The cadets were marching in a single file.  
 (d) When the parade was on, a soldier broke the file.

**Direction for questions 13 to 16:** Each of the following questions has a sentence with two blanks. Given below each question are five pairs of words. Choose the pair that best completes the sentence.

Q 13. The genocides in Bosnia and Rwanda, apart from being mis-described in the most sinister and \_\_\_\_\_ manner as 'ethnic cleansing', were also blamed, in further hand-washing rhetoric, on something dark and interior to \_\_\_\_\_ and perpetrators alike.

- (a) innovative; communicator  
 (b) enchanting; leaders  
 (c) disingenuous; victims  
 (d) exigent; exploiters

Q 14. As navigators, calendar makers, and other \_\_\_\_\_ the contrary, ancient astronomers were forced to \_\_\_\_\_ of the night sky accumulated evidence to \_\_\_\_\_ that certain bodies might move in circles about points, which in turn moved in circles about the earth.

- (a) scrutinizers; believe
- (b) observers; agree
- (c) scrutinizers; suggest
- (d) observers; concede

Q 15. Every human being, after the first few days of his life, is a product of two factors: on the one hand, there is his \_\_\_\_\_ endowment; and on the other hand, there is the effect of environment, including \_\_\_\_\_.

- (a) constitutional; weather
- (b) congenital; education
- (c) personal; climate
- (d) genetic; pedagogy

Q 16. Exhaustion of natural resources, destruction of individual initiative by governments, control over men's minds by central \_\_\_\_\_ of education and propaganda are some of the major evils which appear to be on the increase as a result of the impact of science upon minds suited by \_\_\_\_\_ to an earlier kind of world.

- (a) tenets; fixation
- (b) aspects; inhibitions
- (c) institutions; inhibitions
- (d) organs; tradition

**Direction for questions 17 to 20:** *Each of the following questions has a paragraph from which the last sentence has been deleted. From the given options, choose the sentence that completes the paragraph in the most appropriate way.*

Q 17. Most people at their first consultation take a furtive look at the surgeon's hands in the hope of reassurance. Prospective patients look for delicacy, sensitivity, steadiness, perhaps unblemished pallor. On this basis, Henry Perowne loses a number of cases each year. Generally, he knows it is about to happen before the patient does: the downward glance repeated, the prepared questions beginning to falter, the overemphatic thanks during the retreat to the door.

- (a) Other people do not communicate due to their poor observation.
- (b) Other patients do not like what they see but are ignorant of their right to go elsewhere.
- (c) But Perowne himself is not concerned.
- (d) But others will take their place, he thought.

Q 18. Trade protectionism, disguised as concern for the climate, is raising its head. Citing competitiveness concerns, powerful industrialized countries are holding out threats of a Levy on imports of energy-intensive products from developing countries that refuse to accept their demands. The actual source of protectionist sentiment in the OECD countries is, of course, their current lacklustre economic performance, combined with the

challenges posed by the rapid economic rise of China and India—in that order.

- (a) Climate change is evoked to bring trade protectionism through the back door.
- (b) OECD countries are taking refuge in climate change issues to erect trade barriers against these two countries.
- (c) Climate change concerns have come as a convenient stick to beat the rising trade power of China and India.
- (d) Defenders of the global economic status quo are posing as climate change champions.

Q 19. Mattancherry is Indian Jewry's most famous settlement. Its pretty streets of pastel coloured houses, connected by first-floor passages and home to the last twelve saree-and-sarong-wearing, white-skinned Indian Jews are visited by thousands of tourists each year. Its synagogue, built in 1568, with a floor of blue-and-white Chinese tiles, a carpet given by Haile Selassie and the frosty Yaheh selling tickets at the door, stands as an image of religious tolerance.

- (a) Mattancherry represents, therefore, the perfect picture of peaceful co-existence.
- (b) India's Jews have almost never suffered discrimination, except for European colonizers and each other.
- (c) Jews in India were always tolerant.
- (d) Religious tolerance has always been only a façade and nothing more.

Q 20. Given the cultural and intellectual interconnections, the question of what is 'Western' and what is 'Eastern' (or 'Indian') is often hard to decide, and the issue can be discussed only in more dialectical terms. The diagnosis of a thought as 'purely Western' or 'purely Indian' can be very illusory.

- (a) Thought are not the kind of things that can be easily categorized.
- (b) Though 'occidentalism' and 'orientalism' as dichotomous concepts have found many adherents.
- (c) 'East is East and West is West' has been a discredited notion for a long time now.
- (d) The origin of a thought is not the kind of thing to which 'purity' happens easily.

**Direction for questions 21 to 25:** *The passage given below is followed by a set of five questions. Choose the most appropriate answer to each question.*

When I was little, children were bought two kinds of ice cream, sold from those white wagons with canopies made of silvery metal: either the two-cent cone or the four-cent ice-cream pie. The two-cent cone was very small, in fact it could fit comfortably into a child's hand, and it was made by taking the ice cream from its container with a special scoop and piling it on the cone. Granny always suggested I eat only a part of the cone, then throw away the pointed end, because it had been touched by the vendor's hand

(though that was the best part, nice and crunchy, and it was regularly eaten in secret, after a pretence of discarding it).

The four-cent pie was made by a special little machine, also silvery, which pressed two disks of sweet biscuit against a cylindrical section of ice cream. First you had to thrust your tongue into the gap between the biscuits until it touched the central nucleus of ice cream; then, gradually, you ate the whole thing, the biscuit surfaces softening as they became soaked in creamy nectar. Granny had no advice to give here: in theory the pies had been touched only by the machine; in practice, the vendor had held them in his hand while giving them to us, but it was impossible to isolate the contaminated area.

I was fascinated, however, by some of my peers, whose parents bought them not a four-cent pie but two two-cent cones. These privileged children advanced proudly with one cone in their right hand and one in their left; and expertly moving their head from side to side, they licked first one, then the other. This liturgy seemed to me so sumptuously enviable, that many times I asked to be allowed to celebrate it. In vain my elders were inflexible: a four-cent ice, yes; but two two-cent ones, absolutely number.

As anyone can see, neither Mathematics nor economy nor dietetics justified this refusal. Nor did hygiene, assuming that in due course the tips of both cones were discarded. The pathetic, and obviously mendacious, justification was that a boy concerned with turning his eyes from one cone to the other was more inclined to stumble over stones, steps, or cracks in the pavement. I dimly sensed that there was another secret justification, cruelly pedagogical, but I was unable to grasp it.

Today, citizen and victim of a consumer society, a civilization of excess and waste (which the society of the thirties was not), I realize that those dear and now departed elders were right. Two two-cent cones instead of one at four cents did not signify squandering, economically speaking, but symbolically they surely did. It was for this precise reason, that I yearned for them: because two ice creams suggested excess. And this was precisely why they were denied to me: because they looked indecent, an insult to poverty, a display of fictitious privilege, a boast of wealth. Only spoiled children ate two cones at once, those children who in fairy tales were rightly punished, as Pinocchio was when he rejected the skin and the stalk. And parents who encouraged this weakness, appropriate to little parvenu; were bringing up their children in the foolish theatre of "I'd like to but I cannot." They were preparing them to turn up at tourist-class check-in with a fake Gucci bag bought from a street peddler on the beach at Rimini.

Nowadays the moralist risks seeming at odds with morality, in a world where the consumer civilization now wants even adults to be spoiled, and promises them a one way something more, from the wristwatch in the box of detergent to the bonus bangle sheathed, with the magazine it accompanies, in a plastic envelope. Like the parents of those ambidextrous gluttons I so envied, the consumer civilization pretends to give more, but actually gives, for four cents, what is worth four cents. You will throwaway the old transistor radio to purchase the new one, that boasts an alarm clock as well, but some inexplicable defect in the mechanism will guarantee that the radio lasts only a year.

The new cheap car will have leather seats, double side minors adjustable from inside, and a panelled dashboard, but it will not last nearly so long as the glorious old Fiat 500, which, even when it broke down, could be started again with a kick.

The morality of the old days made Spartans of us all, while today's morality wants all of us to be Sybarites.



**Direction for questions 26 to 30:** The passage given below is followed by a set of five questions. Choose the most appropriate answer to each question.

Language is not a cultural artifact that we learn the way we learn to tell time or how the federal government works. Instead, it is a distinct piece of the biological makeup of our brains. Language is a complex, specialized skill, which develops in the child spontaneously, without conscious effort or formal instruction, is deployed without awareness of its underlying logic, is qualitatively the same in every individual, and is distinct from more general abilities to process information or behave intelligently. For these reasons some cognitive scientists have described language as a psychological faculty, a mental organ, a neural system,

and a computational module. But I prefer the admittedly quaint term “instinct”. It conveys the idea that people know how to talk in more or less the sense that spiders know how to spin webs. Web-spinning was not invented by some unsung spider genius and does not depend on having had the right education or on having an aptitude for architecture or the construction trades. Rather, spiders spin spider webs because they have spider brains, which give them the urge to spin and the competence to succeed. Although there are differences between webs and words, I will encourage you to see language in this way, for it helps to make sense of the phenomena we will explore.

Thinking of language as an instinct inverts the popular wisdom, especially as it has been passed down in the Canon of the humanities and social sciences. Language is no more a cultural invention than is upright posture. It is not a manifestation of a general capacity to use symbols: a three-year-old, we shall see, is a grammatical genius, but is quite incompetent at the visual arts, religious iconography, traffic signs, and the other staples of the semiotics curriculum. Though language is a magnificent ability unique to Homo sapiens among living species, it does not call for sequestering the study of humans from the domain of biology, for a magnificent ability unique to a particular living species is far from unique in the animal kingdom. Some kinds of bats home in on flying insects using Doppler sonar. Some kinds of migratory birds navigate thousands of miles by calibrating the positions of the constellations against the time of day and year. In nature’s talent show, we are simply a species of primate with our own act, a knack for communicating information about who did what to whom by modulating the sounds we make when we exhale.

Once you begin to look at language not as the ineffable essence of human uniqueness but as a biological adaptation to communicate information, it is no longer as tempting to see language as an insidious shaper of thought, and, we shall see, it is not. Moreover, seeing language as one of nature’s engineering marvels—an organ with “that perfection of structure and co-adaptation which justly excites our admiration,” in Darwin’s words—gives us a new respect for your ordinary Joe and the much-maligned English language (or any language). The complexity of language, from the scientist’s point of view, is part of our biological birth-right; it is not something that parents teach their children or something that must be elaborated in school—as Oscar Wilde said, “Education is an admirable thing, but it is well to remember from time to time that nothing that is worth knowing can be taught.” A preschooler’ tacit knowledge of grammar is more sophisticated than the thickest style manual or the most state-of-the-art computer language system, and the same applies to all healthy human beings, even the notorious syntax-fracturing professional athlete and the, you know, like, inarticulate teenage skateboarder. Finally, since language is the product of a well-engineered biological instinct, we shall see that it is not the nutty barrel of monkeys that entertainer-columnists make it out to be.

Q 26. According to the passage, which of the following does not stem from popular wisdom on language?

- (a) Language is a cultural artifact
- (b) Language is a cultural invention
- (c) Language is learnt as we grow
- (d) Language is a psychological faculty

- Q 27. Which of the following can be used to replace the “spiders know how to spin webs” analogy as used by the author?
- (a) A kitten learning to jump over a wall
  - (b) Bees collecting nectar
  - (c) A donkey carrying a load
  - (d) A horse running a Derby
- Q 28. According to the passage, which of the following is unique to human beings?
- (a) Ability to use symbols while communicating with One another.
  - (b) Ability to communicate with each other through voice modulation.
  - (c) Ability to communicate information to other members of the species.
  - (d) Ability to use sound as means of communication.
- Q 29. According to the passage, complexity of language cannot be taught by parents or at school to children because
- (a) children instinctively know language.
  - (b) children learn the language on their own.
  - (c) language is not amenable to teaching.
  - (d) children know language better than their teachers or parents.
- Q 30. Which of the following best summarizes the passage?
- (a) Language is unique to Homosapiens
  - (b) Language is neither learnt nor taught
  - (c) Language is not a cultural invention or artifact as it is made out
  - (d) Language is instinctive ability of human beings

**Direction for questions 31 to 35:** *The passage given below is followed by a set of five questions. Choose the most appropriate answer to each question.*

To summarize the Classic Maya collapse, we can tentatively identify five strands. I acknowledge, however, that Maya archaeologists still disagree vigorously among themselves — in part, because the different strands evidently varied in importance among different parts of the Maya realm; because detailed archaeological studies are available for only some Maya sites; and because it remains puzzling why most of the Maya heartland remained nearly empty of population and failed to recover after the collapse and after re-growth of forests.

With those caveats, it appears to me that one strand consisted of population growth outstripping available resources: a dilemma similar to the one foreseen by Thomas Malthus in 1798 and being played out today in Rwanda, Haiti and elsewhere. As the archaeologist David Webster succinctly puts it, “Too many farmers grew too many crops on too much of landscape.” Compounding that mismatch between population and resources was the second strand: the effects of deforestation

and hillside erosion, which caused a decrease in the amount of useable farmland at a time when more rather than less farmland was needed, and possibly exacerbated by an anthropogenic drought resulting from deforestation, by soil nutrient depletions and other soil problems, and by the struggle to prevent bracken ferns from over-running the fields.

The, third strand consisted of increased fighting, as more and more people fought over fewer resources. Maya warfare, already endemic, peaked just before the collapse. That is not surprising when one reflects that at least five million people, perhaps many more, were crammed into an area smaller than the US state of Colorado (104,000 square miles). That warfare would have decreased further the amount of land available for agriculture, by creating no-man's lands between principalities where it was now unsafe to farm. Bringing matters to a head was the strand of climate change. The drought at the time of the Classic collapse was not the first drought that the Maya had lived through, but it was the most severe. At the time of previous droughts, there were still uninhabited parts of the Maya landscape, and people at a site affected by drought could save themselves by moving to another site. However, by the time of the Classic collapse the landscape was now full there was no useful unoccupied land in the vicinity on which to begin anew, and the whole population could not be accommodated in the few areas that continued to have reliable water supplies.

As our fifth strand, we have to wonder why the kings and nobles failed to recognize and solve these seemingly obvious problems undermining their society. Their attention was evidently focused on their short-term concerns of enriching themselves, waging wars, erecting monuments, competing with each other, and extracting enough food from the peasants to support all those activities. Like most leaders throughout human history, the Maya kings and nobles did not heed long-term problems, insofar as they perceived them.

Finally, while we still have some other past societies to consider before we switch our attention to the modern world, we must already be struck by some parallels between the Maya and the past societies. As on Mangareva, the Maya environmental and population problems led to increasing warfare and civil strife. Similarly, on Easter Island and at Chaco Canyon, the Maya peak population numbers were followed swiftly by political and social collapse. Paralleling the eventual extension of agriculture from Easter Island's coastal lowlands to its uplands, and from the Mimbres floodplain to the hills, Copan's inhabitants also expanded from the floodplain to the more fragile hill slopes, leaving them with a larger population to feed when the agricultural boom in the hills went bust. Like Easter Island chiefs erecting ever larger statues, eventually crowned by pukao, and like Anasazi elite treating themselves to necklaces of 2,000 turquoise beads, Maya kings sought to outdo each other with more and more impressive temples, covered with thicker and thicker plaster—reminiscent in turn of the extravagant conspicuous consumption by modern American CEOs. The passivity of Easter chiefs and Maya kings in the face of the real big threats to their societies completes our list of disquieting parallels.

Q 31. According to the passage, which of the following best represents the factor that has been cited by the author in the context of Rwanda and Haiti?

- (a) Various ethnic groups competing for Land and other resources.
- (b) Various ethnic groups competing for limited land resources.
- (c) Various ethnic groups fighting with each other.
- (d) Various ethnic groups competing for political power.

Q 32. By an anthropogenic drought, the author means

- (a) a drought caused by lack of rains.
- (b) a drought caused due to deforestation.
- (c) a drought caused by failure to prevent bracken ferns from overrunning the fields.
- (d) a drought caused by actions of human beings.

Q 33. According to the passage, the drought at the time of Maya collapse had a different impact compared to the drought earlier because

- (a) the Maya kings continued to be extravagant when common people were suffering.
- (b) it happened at the time of collapse of leadership among Mayas.
- (c) it happened when the Maya population had occupied all available land suited for agriculture.
- (d) it was followed by internecine warfare among Mayas.

Q 34. According to the author, why is it difficult to explain the reasons for Maya collapse?

- (a) Copan inhabitants destroyed all records of that period.
- (b) Thee constant deforestation and hillside erosion have wiped out all traces of the Maya kingdom.
- (c) Archaeological sites of Mayas do not provide any consistent evidence.
- (d) At least five million people were crammed into a small area.

Q 35. Which factor has not been cited as one of the factors causing the collapse of Maya society?

- (a) Environmental degradation due to excess population.
- (b) Social collapse due to excess population.
- (c) Increased warfare among Maya people.
- (d) Obsession of Maya population with their own short-term concerns.

**Direction for questions 36 to 40:** *The passage given below is followed by a set of five questions. Choose the most appropriate answer to each question.*

A remarkable aspect of art of the present century is the range of concepts and ideologies which it embodies. It is almost tempting to see a pattern emerging within the art field—or alternatively imposed upon it a *posteriori*-similar to that which exists under the umbrella of science where the general term covers a whole range of separate, though interconnecting, activities. Any parallelism is however,

in this instance at least misleading. A scientific discipline develops systematically once its bare tenets have been established, named and categorized as conventions. Many of the concepts of modern art, by contrast, have resulted from the almost accidental meetings of groups of talented individuals at certain times and certain places. The ideas generated by these chance meetings had twofold consequences. Firstly, a corpus of work would be produced which, in great part, remains as a concrete record of the events. Secondly, the ideas would themselves be disseminated through many different channels of communication—seeds that often bore fruit in contexts far removed from their generation. Not all movements were exclusively concerned with innovation. Surrealism, for instance, claimed to embody a kind of insight which can be present in the art of any period. This claim has been generally accepted so that a sixteenth century painting by Spranger or a mysterious photograph by Atget can legitimately be discussed in surrealist terms. Briefly, then, the concepts of modern art are of many different (often fundamentally different) kinds and resulted from the exposures of painters, sculptors and thinkers to the more complex phenomena of the twentieth century, including our ever increasing knowledge of the thought and products of earlier centuries. Different groups of artists would collaborate in trying to make sense of a rapidly changing world of visual and spiritual experience. We should hardly be surprised if no one group succeeded completely, but achievements, though relative, have been considerable. Landmarks have been established—concrete statements of position which give a pattern to a situation which could easily have degenerated into total chaos. Beyond this, new language tools have been created for those who follow semantic systems which can provide a springboard for further explorations.

The codifying of art is often criticized. Certainly one can understand that artists are wary of being pigeon-holed since they are apt to think of themselves as individuals sometimes with good reason. The notion of self-expression, however, no longer carries quite the weight it once did; objectivity has its defenders. There is good reason to accept the ideas codified by artists and critics, over the past sixty years or so, as having attained the status of independent existence—an independence which is not without its own value. The time factor is important here. As an art movement slips into temporal perspective, it ceases to be a living organism—becoming, rather, a fossil. This is not to say that it becomes useless or uninteresting. Just as a scientist can reconstruct the life of a prehistoric environment from the messages codified into the structure of a fossil, so can an artist decipher whole webs of intellectual and creative possibility from the recorded structure of a ‘dead’ art movement. The artist can match the creative patterns crystallized into this structure against the potentials and possibilities of his own time. As T.S. Eliot observed, no one starts anything from scratch; however, consciously you may try to live in the present, you are still involved with a nexus of behaviour patterns bequeathed from the past. The original and creative person is

not someone who ignores these patterns, but someone who is able to translate and develop them so that they conform more exactly to his and our present needs.

- Q 36. Many of the concepts of modern art have been the product of
- ideas generated from planned deliberations between artists, painters and thinkers.
  - the dissemination of ideas through the state and its organizations.
  - accidental interactions among people blessed with creative muse.
  - patronage by the rich and powerful that supported art.
- Q 37. In the passage, the word ‘fossil’ can be interpreted as
- an art movement that has ceased to remain interesting or useful.
  - an analogy from the physical world to indicate a historic art movement.
  - an analogy from the physical world to indicate the barrenness of artistic creations in the past.
  - an analogy from the physical world to indicate the passing of an era associated with an art movement.
- Q 38. In the passage, which of the following similarities between science and art may lead to erroneous conclusions?
- Both, in general, include a gamut of distinct but interconnecting activities.
  - Both have movements not necessarily concerned with innovation.
  - Both depend on collaborations between talented individuals.
  - Both involve abstract thought and dissemination of ideas.
- Q 39. The range of concepts and ideologies embodied in the art of the twentieth century is explained by
- the existence of movements such as surrealism.
  - landmarks which give a pattern to the art history of the twentieth century.
  - new language tools which can be used for further explorations into new areas.
  - the fast changing world of perceptual and transcendental understanding.
- Q 40. The passage uses an observation by T.S. Eliot to imply that
- creative processes are not ‘original’ because they always borrow from the past.
  - we always carry forward the legacy of the past.
  - past behaviours and thought processes recreate themselves in the present and get labelled as ‘original’ or ‘creative’.
  - ‘innovations’ and ‘original thinking’ interpret and develop on past thoughts to suit contemporary needs.

# ANSWERS



## SECTION 1—VERBAL ABILITY

Q. No.	Answer						
1	(a)	2	(d)	3	(d)	4	(d)
5	(c)	6	(b)	7	(b)	8	(a)
9	(c)	10	(d)	11	(b)	12	(d)
13	(c)	14	(d)	15	(d)	16	(d)
17	(b)	18	(d)	19	(d)	20	(d)
21	(d)	22	(d)	23	(b)	24	(b)
25	(a)	26	(d)	27	(b)	28	(b)
29	(a)	30	(d)	31	(a)	32	(d)
33	(c)	34	(d)	35	(d)	36	(c)
37	(d)	38	(a)	39	(d)	40	(d)

## HINTS AND EXPLANATIONS

### SECTION 1—VERBAL ABILITY



1. (a) Sentence A – there is a spelling error. ‘Imigrant’ is not the correct spelling, ‘Immigrant’ is the correct spelling.  
 Sentence C – has a punctuation error, as it requires a comma at the end.  
 Sentence D – needs the article ‘the’ before ‘owner of dry goods business’.  
 Sentence E – has a tense error: it should be ‘would later become’, not ‘would later became’.  
 So only B is correct. Hence, option (a) is the answer.
2. (d) Sentences A and D are correct.  
 Sentence E–uses a wrong article: it should be ‘an industry’, not ‘a industry’.  
 Sentence C–The comma at the end of sentence C is incorrect, as it separates the subject from the main verb.  
 Sentence B–uses the incorrect pronoun ‘their’ instead of ‘its’. Hence, option (d) is the answer.
3. (d) Sentence B–the word ‘home’ should be in the plural, as millions of people cannot share a single home.  
 Sentence E–the verb should be the singular ‘has’, because the subject ‘death count’ is singular.  
 A, C and D are correct. Hence, option (d) is the answer.
4. (d) Sentence B–the verb ‘associate’ should be in the past tense in keeping with the rest of the sentence.  
 Statement C–‘seem’ should also be in the past.  
 Statement E, the noun ‘effort’ is missing an article.  
 Therefore, only A and D are correct. Hence, option (d) is the answer.
5. (c) Brooch = ‘a clasp or ornamental pin’ is the correct word.  
 ‘Broach’ is a verb = bring up a topic for discussion.  
 Councillor = ‘a member of a council’ is the best fit, as people do not complain about the amenities in the neighbourhood to a counsellor (‘a person who counsels; adviser’) but to a councillor who can handle these issues.  
 Third Sentence requires a noun and not a verb. Hence ‘advice’ and not ‘advise’ which is a verb.  
 Climactic = ‘pertaining to or coming to a climax’ which suits in the context of the play.  
 Climatic = ‘of or pertaining to climate’,  
 Flare = ‘a shape that spreads outward’ is the correct option.  
 ‘Flair’ = talent  
 Only (c) in the options has all the sequence BAAAB. Hence, option (c) is the answer.

9. (c) Sentences (A), (B), (D) and (E) use the word ‘run’ appropriately. Sentence (C) makes no sense, because ‘run over’ usually means to hit and knock down, especially with a vehicle. Hence, option (c) is the answer.
10. (d) In sentence (E) the correct expression should be ‘come around’ and not ‘come round’. Sentences (A) (B), (C) and (D) use the word ‘round’ in appropriate contexts. Hence, option (d) is the answer.
11. (b) The word ‘buckle’ has been used in correct contexts in sentences (A), (C), (D) and (E). In sentence (B) ‘broke into a buckle’ does not carry any standard meaning. Hence, option (b) is the answer.
12. (d) Sentences (A) and (B) use the word ‘file’ in the most common context. Sentences (C) and (D) also use the word correctly. However, sentence (E) should be ‘broke the ranks’ and not ‘broke the file’. Hence, option (d) is the answer.
13. (c) ‘Disingenuous’ = ‘insincere and this best fits the context as the phrase ‘ethnic cleansing’ is marked by apostrophes indicating a misrepresentation. Hence, option (c) is the answer.

## ➤ SECTION 2—LOGICAL REASONING

**Direction for questions 1 to 3:** Answer the following questions based on the statements given below:

- (i) There are three houses on each side of the road.
- (ii) These six houses are labelled as P, Q, R, S, T and U.
- (iii) The houses are of different colours, namely, Red, Blue, Green, Orange, Yellow and White.
- (iv) The houses are of different heights.
- (v) T, the tallest house, is exactly opposite to the Red coloured house.
- (vi) The shortest house is exactly opposite to the Green coloured house.
- (vii) U, the Orange coloured house, is located between P and S.
- (viii) R, the Yellow coloured house, is exactly opposite to P.
- (ix) Q, the Green coloured house, is exactly opposite to U.
- (x) P, the White coloured house, is taller than R, but shorter than S and Q.

Q 1. What is the colour of the house diagonally opposite to the Yellow coloured house?

- (a) White      (b) Blue      (c) Green      (d) Red

Q 2. Which is the second tallest house?

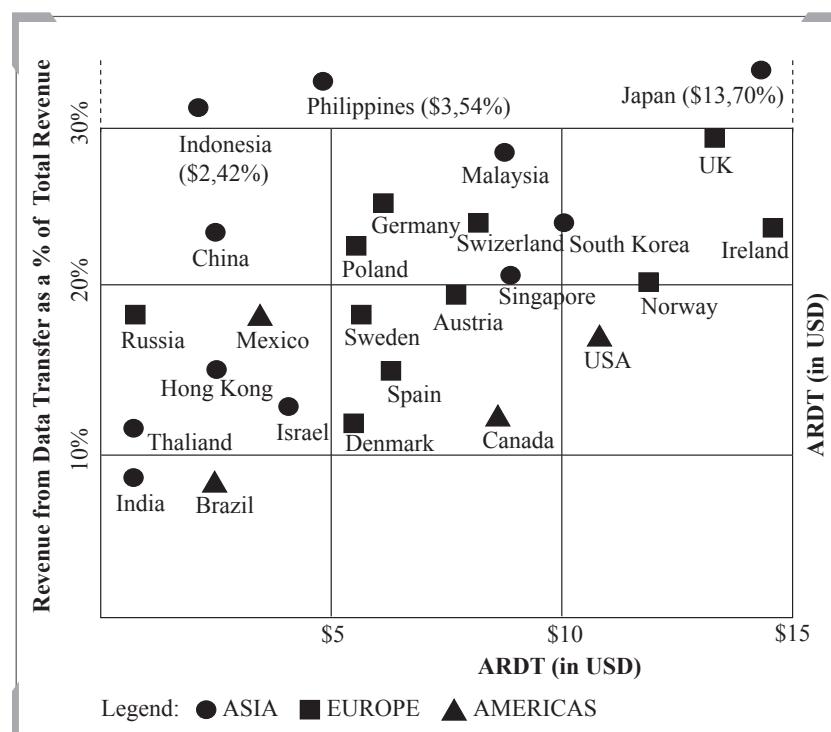
- (a) P      (b) S      (c) Q      (d) Cannot be determined

Q 3. What is the colour of the tallest house?

- (a) Red      (b) Blue      (c) Green      (d) Yellow

**Direction for questions 4 to 6:** Answer the following questions based on the information given below:

Telecom operators get revenue from transfer of data and voice. Average revenue received from transfer of each unit of data is known as ARDT. In the diagram below, the revenue received from data transfer as percentage of total revenue received and the ARDT in US Dollars (USD) are given for various countries.



Q 4. It was found that the volume of data transfer in India is the same as that of Singapore. Then which of the following statements is true?

- (a) Total revenue is the same in both countries.
- (b) Total revenue in India is about 2 times that of Singapore.
- (c) Total revenue in India is about 4 times that of Singapore.
- (d) Total revenue in Singapore is about 4 times that of India.

Q 5. It is expected that by 2010, revenue from data transfer as a percentage of total revenue will triple for India and double for Sweden. Assume that in 2010, the total revenue in India is twice that of Sweden and that the volume of data transfer is same in both the countries. What is the percentage increase of ARDT in India if there is no change in ARDT in Sweden?

- (a) 400%
- (b) 550%
- (c) 800%
- (d) 950%

Q 6. If the total revenue received is the same for the pairs of countries listed in the choices below, choose the pair that has approximately the same volume of data transfer.

- (a) Philippines and Austria
- (b) Canada and Poland
- (c) Germany and USA
- (d) UK and Spain

**Direction for questions 7 to 9: Answer the following questions based on the information given below:**

For admission to various affiliated colleges, a university conducts a written test with four different sections, each with a maximum of 50 marks. The following table gives the aggregate as well as the sectional cut-off marks fixed by six different colleges affiliated to the university. A student will get admission only if he/she gets marks greater than or equal to the cut-off marks' in each of the sections and his/her aggregate marks are at least equal to the aggregate cut-off marks as specified by the college.

	<i>Sectional Cut-off Marks</i>				<i>Aggregate Cut-off Marks</i>
	<i>Section A</i>	<i>Section B</i>	<i>Section C</i>	<i>Section D</i>	
College 1	42	42	42		176
College 2			45		175
College 3			46		171
College 4	43			45	178
College 5	45		43		180
College 6		41		44	176

Q 7. Bhama got calls from all colleges. What could be the minimum aggregate marks obtained by her?

- (a) 180
- (b) 181
- (c) 196
- (d) 176

Q 8. Charlie got calls from two colleges. What could be the minimum marks obtained by him in a section?

- (a) 0
- (b) 21
- (c) 25
- (d) 35

Q 9. Aditya did not get a call from even a single college. What could be the maximum aggregate marks obtained by him?

- (a) 181
- (b) 176
- (c) 184
- (d) 196

**Direction for questions 10 to 13: Answer the following questions based on the information given below:**

In a sports event, six teams (A, B, C, D, E and F) are competing against each other. Matches are scheduled in two stages. Each team plays three matches in Stage-I and two matches in Stage-II. No team plays against the same team more than once in the event. No ties are permitted in any of the matches. The observations after the completion of Stage-I and Stage-II are as given below.

**Stage-I:**

- One team won all the three matches.
- Two teams lost all the matches.
- D lost to A but won against C and F.
- E lost to B but won against C and F.
- B lost at least one match.
- F did not play against the top team of Stage-I.

**Stage-II:**

- The leader of Stage-I lost the next two matches.
- Of the two teams at the bottom after Stage-I, one team won both matches, while the other lost both matches.
- One more team lost both matches in Stage-II.

Q 10. The two teams that defeated the leader of Stage-I are:

- (a) F and D      (b) E and F      (c) B and D      (d) F and D

Q 11. The only team(s) that won matches in Stage-II is (are):

- (a) B      (b) E and F      (c) A, E and F      (d) B and F

Q 12. The teams that won exactly two matches in the event are:

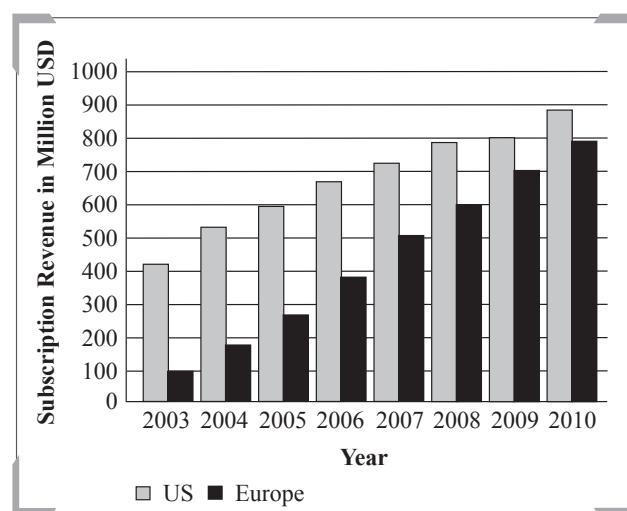
- (a) A, D and F      (b) D and E      (c) E and F      (d) D, E and F

Q 13. The team(s) with the most wins in the event is (are):

- (a) A      (b) A and C      (c) F      (d) F and E

**Direction for questions 14 to 17: Answer the following questions based on the information given below:**

The bar chart shows the revenue received, in million US dollars (USD), from subscribers to a particular Internet service. The data covers the period 2003 to 2007 for the United States (US) and Europe. The bar chart also shows the estimated revenues from subscription to this service for the period 2008 to 2010.



Q 14. The difference between the estimated subscription in Europe in 2008 and what it would have been if it were computed using the percentage growth rate of 2007 (over 2006), is closest to:

- (a) 50      (b) 80      (c) 20      (d) 10

Q 15. In 2003, 60% of subscribers in Europe were men. Given that women subscribers increase at the rate of 10 per cent per annum and men at the rate of 5 per cent per annum, what is the approximate percentage growth of subscribers between 2003 and 2010 in Europe? The subscription prices are volatile and may change each year.

- (a) 62      (b) 15      (c) 78      (d) 84

Q 16. Consider the annual percentage change in the gap between subscription revenues in the US and Europe. What is the year in which the absolute value of this change is the highest?

- (a) 2003-04      (b) 2005-06      (c) 2006-07      (d) 2008-09

Q 17. While the subscription in Europe has been growing steadily towards that of the US, the growth rate in Europe seems to be declining. Which of the following is closest to the percentage change in growth rate of 2007 (over 2006) relative to the growth rate of 2005 (over 2004)?



**Direction for questions 18 to 22:** Answer the following questions based on the information given below:

Abdul, Bikram and Chetan are three professional traders who trade in shares of a company XYZ Ltd. Abdul follows the strategy of buying at the opening of the day at 10 am and selling the whole lot at the close of the day at 3 pm. Bikram follows the strategy of buying at hourly intervals: 10 am, 11 am, 12 noon, 1 pm and 2 pm, and selling the whole lot at the close of the day. Further, he buys an equal number of shares in each purchase. Chetan follows a similar pattern as Bikram but his strategy is somewhat different. Chetan's total investment amount is divided equally among his purchases. The profit or loss made by each investor is the difference between the sales values at the close of the day less the investment in purchase. The "return" for each investor is defined as the ratio of the profit or loss to the investment amount expressed as a percentage.

Q 18. On a day of fluctuating market prices, the share price of XYZ Ltd ends with a gain, i.e., it is higher at the close of the day compared to the opening value. Which trader got the m return on that day?

- (a) Bikram      (b) Chetan      (c) Abdul      (d) Bikram or Chetan

Q 19 Which one of the following statements is always true?

- Which one of the following statements is always true?

  - Abdul will not be the one with the minimum return.
  - Return for Chetan will be higher than that of Bikram.
  - Return for Bikram will be higher than that of Chetan.
  - Return for Chetan cannot be higher than that of Abdul.

Q 20. On a “boom” day the share price of XYZ Ltd keeps rising throughout the day and peaks at the close of the day. Which trader got the minimum return on that day?

- (a) Bikram              (b) Chetan'              (c) Abdul              (d) Cannot be determined

One day, two other traders, Dane and Emily joined Abdul, Bikram and Chetan for trading in the shares of XYZ Ltd. Dane followed a strategy of buying equal numbers of shares at 10 am, 11 am and 12 noon, and selling the same numbers at 1 pm, 2 pm and 3 pm. Emily, on the other hand, followed the strategy of buying shares using all her money at 10 am and selling all of them at 12 noon and again buying the shares for all the money at 1 pm and again selling all of them at the close of the day at 3 pm. At the close of the day the following was observed:

- (i) Abdul lost money in the transactions.
  - (ii) Both Dane and Emily made profits.
  - (iii) There was an increase in share price during the closing hour compared to the price at 2 pm.
  - (iv) Share price at 12 noon was lower than the opening price.

Q 21. Share price was at its highest at

- (a) 10 am                    (b) 11 am                    (c) 12 noon                    (d) 1 pm

Q 22. Which of the following is necessarily false?

- (a) Share price was at its lowest at 2 pm.
  - (b) Share price was at its lowest at 11 am.
  - (c) Share price at 1 pm was higher than the share price at 2 pm.
  - (d) Share price at 1 pm was higher than the share price at 12 noon.

**Direction for questions 23 to 25:** Answer the following questions based on the information given below:

There are 100 employees in an organization across five departments. The following table gives the department-wise distribution of average age, average basic pay and allowances. The gross pay of an employee is the sum of his/her basic pay and allowance.

<i><b>Department</b></i>	<i><b>Number of Employees</b></i>	<i><b>Average Age (Years)</b></i>	<i><b>Average Basic Pay (Rs)</b></i>	<i><b>Allowances (% of Basic Pay)</b></i>
HR	5	45	5,000	70
Marketing	30	35	6,000	80
Finance	20	30	6,500	60
Business Development	35	42	7,500	75
Maintenance	10	35	5,500	50

There are limited numbers of employees considered for transfer/promotion across departments. Whenever a person is transferred/promoted from a department of lower average age to a department to higher average age, he/she will get an additional allowance of 10% of basic pay over the above his/her current allowance. There will not be an change in pay structure if a person is transferred/promoted from a department with higher average age to a department with lower average age.

Questions below are independent of each other.

- Q 23. What is the approximate percentage change in the average gross pay of the HR department due to transfer of a 40-year old person with basic pay of a Rs 8,000 from the Marketing department?  
(a) 9%                   (b) 11%                   (c) 13%                   (d) 15%

Q 24. There was a mutual transfer of an employee between Marketing and Finance departments and transfer of one employee from Marketing to HR. As a result, the average age of Finance department increased by one year and that of Marketing department remained the same. What is the new average age of HR department?  
(a) 30                   (b) 35                   (c) 40                   (d) 45

Q 25. If two employees (each with a basic pay of Rs 6,000) are transferred from Maintenance department and one person (with a basic pay of Rs 8,000) was transferred from Marketing department to HR dept., what will be the percentage change in average basic pay of HR department?  
(a) 10.5%               (b) 12.5%               (c) 15%                   (d) 30%

# ANSWERS



## ↳ SECTION 2—LOGICAL REASONING

Q. No.	Answer						
1	(d)	2	(d)	3	(b)	4	(d)
5	(c)	6	(d)	7	(b)	8	(c)
9	(c)	10	(d)	11	(d)	12	(a)
13	(d)	14	(a)	15	(a)	16	(d)
17	(d)	18	(b)	19	(c)	20	(d)
21	(b)	22	(a, d)	23	(c)	24	(a)
25	(b)						

## HINTS AND EXPLANATIONS

## ↳ SECTION 2—LOGICAL REASONING



### **Solution to Q1 to 6:**

From statements (vii), (viii) and (ix), we get,

P	U	S
	Orange	
R	Q	
Yellow	Green	

Further, T is opposite to S and the colour of S is Red. From (x), the colour of house P is white, hence, the colour of house T is blue.

P	U	S
White	Orange	Red
R	Q	T
Yellow	Green	Blue

Now, from (v) and (x), we get

T > S, Q > P > R

From (vi), U is the shortest.

i.e., the order of houses in the descending order of their heights is T, S/Q, Q/S, P, R, U.

1. (d) R is Yellow coloured house and the house diagonally opposite R is S. And the colour of house S is Red. Hence, option (d) is the answer.
2. (d) The second tallest house is either S or Q. Hence, option (d) is the answer.
3. (b) The tallest house is T and its colour is Blue. Hence, option (b) is the answer.
4. (d) Let the volume of data transfer in India and Singapore be  $x$  each, then

$$\text{For India: } \frac{x}{\text{Total revenue}} \times 100 = 9 \Rightarrow \text{Total revenue} = \frac{100x}{9} \approx 11.11x$$

$$\text{For Singapore: } \frac{9x}{\text{Total revenue}} \times 100 = 21 \Rightarrow \text{Total revenue} = \frac{900x}{21} \approx 42.85x$$

Hence, option (d) is the answer.

5. (c) Revenue from data transfer as a percentage of total revenue in 2010:

For India =  $3 \times 9\% = 27\%$

For Sweden =  $2 \times 18\% = 36\%$

Total revenue in 2010 (India) =  $2 \times$  Total revenue in 2010 (Sweden) (Assume  $a$ )

In 2010, the volume of the data transfer in each country be  $b$

$$\text{ARDT in Sweden in 2010} = \$6, \text{ So, } \frac{6b}{a} \times 100 = 36232 \Rightarrow b = \frac{6a}{100}$$

$$\text{Let ARDT in India in 2010 be } c, \text{ then } \frac{17}{11} \times 100 = 27 \Rightarrow \frac{c \times \frac{6a}{100}}{2a} \times 100 = 27 \Rightarrow c = \$9$$

$$\text{So, percentage increase} = \frac{9 - 1}{1} \times 100 = 800\%$$

Hence, option (c) is the answer.

6. (d)  $\frac{\text{ARDT} \times \text{volume}}{\text{Total revenue}} = \% \text{ of total revenue}$

Hence, we want a pair for whom the ratio  $\frac{\% \text{ of total revenue}}{\text{ARDT}}$  is same

Option (a): Philippines =  $\frac{12}{6}$ ; Austria =  $\frac{17}{3}$ , not same

Option (b): Canada =  $\frac{12}{6}$ ; Austria =  $\frac{29}{13}$ , not same

Option (c): Germany =  $\frac{12}{6}$ ; USA =  $\frac{17}{11}$ , not same

Option (d): UK =  $\frac{29}{13}$ ; Spain =  $\frac{17}{3}$ , approximately same

Hence, option (d) is the answer.

#### Solution to Q7 to 9:

7. (b) To get calls from all colleges, Bhama should score marks equal to maximum cut-off marks required for each section of all the colleges the Bhama should score,

<i>Section A</i>	<i>Section B</i>	<i>Section C</i>	<i>Section D</i>
45	45	46	45

Aggregate marks obtained =  $45 + 45 + 45 + 46 = 181$ . Hence, option (b) is the answer.

8. (c) If aggregate marks of Charlie are 175, Charlie stands a chance to clear cut-off of college 2 and 3.  
So, Charlie should score,

<i>Section A</i>	<i>Section B</i>	<i>Section C</i>	<i>Section D</i>
50	50	50	25

His aggregate marks =  $50 + 50 + 50 + 25 = 175$ . Hence, option (c) is the answer.

9. (c) Aditya did not get a call from even a single college and if he has scored maximum aggregate marks, he must have cleared cut-off of two sections with highest score and not cleared the remaining two. So, Score of Aditya =

<b>Section A</b>	<b>Section B</b>	<b>Section C</b>	<b>Section D</b>
50	50	41	43

Aggregate marks =  $50 + 50 + 41 + 43 = 184$ . Hence, option (c) is the answer.

#### **Solution to Q10 to 17:**

Stage-I:

Consider the information:

B lost at least one match. D and E lost one match each.

C and F have lost two matches each.

i.e., A is the top team of Stage-I and has won all the three matches in Stage-I.

Hence, A and F did not play against each other in Stage-I.

Also, B, D and E have won at least one match. Hence, C and F must have lost all the 3 matches in Stage-I.

Thus, the 9 matches played in Stage-I are:

<b>Won-Lost</b>	<b>Won-Lost</b>	<b>Won-Lost</b>
A-D	D-C	D-F
B-E	E-C	E-F
A-B	A-C	B-F

Stage-II:

The 6 matches played in Stage-II are as follows: A-E, A-F, B-C, B-D, D-E, C-F.

The leader of Stage-I, i.e., A lost both the matches.

Two teams at the bottom after Stage-I are C and F.

Since, F lost against A, F lost against C also.

And C won against B and F.

Now, the only other team that lost both the matches is D.

<b>Won-Lost</b>	<b>Won-Lost</b>	<b>Won-Lost</b>
E-A	F-C	F-A
B-C	E-D	B-D

14. (a) Percentage growth rate of 2007 (over 2006) = 31.6%

The subscription in Europe in 2008 =  $1.3 \times 500 = 650$

The difference =  $650 - 610 = 40$

The closest option is (a).

Hence, option (a) is the answer.

15. (a) Assume that there are 100 subscribers in Europe in 2003.

Following table indicates the number of subscribers in Europe:

	2003	2004	2005	2006	2007	2008	2009	2010
Men	60	63	66.15	69.5	73	76.6	80.4	84.4 ≈ 85
Women	40	44	48.4	32.24	58.56	64.4	70.86	77.9 ≈ 78
Total = 163								

Hence, option (a) is the answer.

16. (d) Let us find out the annual percentage change in the gap between the subscription revenues in the US and Europe for the given period:

$$2003-04: \frac{100 - 110}{190} \equiv \frac{10}{110}$$

$$2005-06: \frac{100 - 110}{190} \equiv \frac{10}{110}$$

$$2006-07: \frac{100 - 110}{190} \equiv \frac{10}{110}$$

$$2008-09: \frac{100 - 110}{190} \equiv \frac{10}{110}, \text{ the highest}$$

$$2009-10: \frac{100 - 110}{190} \equiv \frac{10}{110}$$

Hence, option (d) is the answer.

#### Solution to Q21 to 25:

22. (a, d) Thus (a) and (d) both are right answers.

23. (c) Gross pay of HR department =  $5000 \times 1.7 \times 5 = 42500$

Average gross pay = 8500

Gross pay of a new person in HR department =  $8000 \times 1.9 = 15200$

Total new gross pay of HR = 57700

New average ≈ 9617

$$\text{Percentage change} = \frac{9617 - 8500}{8500} \times 100 \approx 13\%$$

Hence, option (c) is the answer.

25. (b) Current average basic pay of HR department = 5000

New average basic of HR department

$$= \frac{5000 \times 5 + 2 \times 6000 + 8000}{8} = \frac{45000}{8} = 5625$$

$$\text{So, Percentage change} = \frac{625}{5000} \times 100 = 12.5\%$$

Hence, option (b) is the answer.

# PART

# 6

## SECTION TESTS

- 
- 
- SECTION TEST 1
  - SECTION TEST 2
  - SECTION TEST 3

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# Section Test 1



## ABOUT The Test

1. There are 30 questions in this test
2. There is one-third negative marking
3. You have 70 minutes to solve this test

**Direction for questions 1 to 3:** In each of the following sentences, a part of the sentence is underlined. Beneath each sentence, four different ways of phrasing the underlined part are indicated. Choose the best alternative from among the four.

Q 1. If you are on a three-month software design project and, in two weeks, you've put together a programme that solves part of the problem, show it to your boss without delay.

- (a) and, you've put together a programme that solves part of the problem in two weeks
- (b) and, in two weeks, you've put together a programme that solves part of the problem
- (c) and, you've put together a programme that has solved part of the problem in two weeks
- (d) and, in two weeks you put together a programme that solved only part of the problem

Q 2. Many of these environmentalists proclaim to save nothing less than the planet itself.

- (a) to save nothing lesser than
- (b) that they are saving nothing lesser than
- (c) to save nothing less than
- (d) that they save nothing less than

Q 3. Bacon believes that the medical profession should be permitted to ease and quicken death where the end would otherwise only delay for a few days and at the cost of great pain.

- (a) be delayed for a few days
- (b) be delayed for a few days and
- (c) be otherwise only delayed for a few days and
- (d) otherwise only delay for a few days and

**Direction for questions 4 to 6:** Read the passage given below and solve the questions based on it.

I met Tom Dunfee in the Year 1977, when he joined the National Endowment for the Humanities supported team of philosophers, business professors, and businessmen who proposed guidelines for a business ethics course. It was not long before Tom Dunfee invited me to co-teach some classes with him at Wharton. I came to class well-armed with my philosophical principles. However, Tom quickly convinced me that these principles needed to take account of the realm of the possible which meant taking account of how ethics is practiced in the world. And, when a social scientist or lawyer looked at the world, it was undeniable that there was a lot of disagreement about ethics. What people actually

## 6.4 ◇◇ Section Tests

believed and institutionalized regarding ethics was too messy for an easy application of ethical principles. That was particularly true in the world of business ethics. That message of complexity, messiness, or noise in the system was a common theme in Tom Dunfee's work. I believe you can see it in Ties That Bind. The hyper norms are analogous to the universal principles of Tom Donaldson's book The Ethics of International Business while all those micro- and macro-social contracts are examples of moral practice. And, the notion of moral free space is, I suspect, an attempt by Tom Dunfee to give validation to the variety of ethical opinion on a large amount of ethical matters, especially in business ethics. When you worked with Tom Dunfee, it was not enough to simply appeal to ethical principles; you needed to take into account how people thought about and practiced ethics.

Q 4. The author of this passage speaks from the perspective of the discipline of

- (a) Philosophy      (b) Business Management
- (c) Sociology      (d) Ethics

Q 5. Which of the following can be the MOST APPROPRIATE title for the passage?

- (a) Seminar on Business Ethics Course
- (b) Ethical Principles for Business Ethics
- (c) Balancing Principles and Practice in Business Ethics
- (d) The Ethics of International Business

Q 6. The author of the passage is most likely to believe that

- (a) ethics consists of micro-contracts among people
- (b) ethics consist of micro-contracts among people.
- (c) ethics consists of what people practice.
- (d) ethics consists of universal principles.

**Direction for questions 7 and 8:** Choose the option that BEST completes the relationship indicated in the capitalized pair.

Q 7. CRITICISE : FULMINATE

- (a) Tease : Assuage
- (b) Flail : Control
- (c) Hurt : Torture
- (d) Laud : Prevaricate

Q 8. POETRY : BALLAD

- (a) Reptile : Snake
- (b) Bulb : Tubelight
- (c) Snake : Reptile
- (d) Life : Death

**Direction for questions 9 and 10:** Choose the option that is CLOSEST in meaning to the idioms.

Q 9. Up the apples and pears

- (a) up the trees
- (b) up the wall
- (c) up the stairs
- (d) beyond imagination

Q 10. Jot or tittle

- (a) scribble
- (b) trifle
- (c) illegible
- (d) talkative

**Direction for questions 11 to 13:** Read the passage given below and solve the questions based on it.

Cryptozoologist Loren Coleman visited Line Road last week to do his own investigation into a couple's claim that something like Bigfoot walked in front of their car.

On Monday, Coleman said that the man had reported seeing something hairy, 7 feet tall and walking upright, cross the road on the morning of February 8th near the Greene-Leeds town line. The woman with him put its height at closer to 6.5 feet.

"They're just afraid it would ruin their lives because of all the ridicule," Coleman said. "They're really very skittish."

Coleman, who has a museum in Portland dedicated to mostly unconfirmed creatures (Bigfoot, the Loch Ness monster, the Jersey Devil), was involved several years ago in naming the Turner Beast, a black animal that created enough mystery that it made national headlines before being unmasked as a dog.

The area has had other historical Bigfoot sightings, he said, as well as sightings of animals described as black panthers and cougars. Mystery cats, Coleman said, seem to live in one place year-round; he questioned whether Bigfoot migrates through the area in spring and fall.

"I think what's happening, we may have a Turner Triangle where there's lot of marshy land," Coleman said. "My conceptualization is that the whole area is more wild than the people in Lewiston or Portland understand."

Eric Nickerson lives on Line Road, a quarter-mile from the point of the sighting. He said he's never seen anything strange in the woods there. In the early 1980s, however, 8 miles away on Turner Center Bridge Road, he claims his brother saw a Bigfoot and that, riding home one day on his bike, he himself was chased by one.

Bill Dubois, manager at the family business Red Roof in Leeds, said people had been in the store gossiping about the sighting. Though most of the information was second or third-hand.

"The people that saw it seemed pretty spooked," he said.

His take on whether something could be in the woods out that way: "In this world, you never know. I have one customer that was just a Bigfoot freak; he believes in it. Telling him, he got all excited."

Q 11. The word "skittish" in the passage means

- (a) shy
- (b) aggressive
- (c) methodical
- (d) considerate

- Q 12. From the passage, it is possible to infer that
- the sightings of mysterious animals are all unfounded.
  - the sightings of mysterious animals could be unfounded.
  - none of the sightings of mysterious animals is unfounded.
  - all the reports of the sightings were first-hand.

- Q 13. Choose the closest in meaning and grammatically correct option in passive voice of the following sentence “the whole area is wilder than the people in Lewiston or Portland understand.”
- the whole area is wilder than the people in Lewiston or Portland understand.
  - the whole area is wilder than understood by the people in Lewiston or Portland.
  - it is wilder in the whole area than the people in Lewiston or Portland understand.
  - it is understood that the whole area is wilder than the people in Lewiston or Portland.

**Direction for questions 14 to 16:** Read the passage given below and solve the questions based on it.

The behavioral economics literature provides several motivations for the common observation that agents appear somewhat unwilling to deviate from their recent choices. For instance, some researchers mention the bias towards recent choices as an example of the availability bias, the ease with which instances come to mind. Similarly, others have argued that players, when indifferent between strategies, choose the most salient strategy. In combination with the so-called recency effect, this may explain why agents appear to have a preference for recent choices. The recency effect refers to the cognitive bias that results from disproportionate salience of recent stimuli or observations. Other motivations include models for agents displaying defaulting behavior or inertia, the formation of habits, the use of rules of thumb, or the locking in on certain modes or behavior due to learning by doing or, as some express it: unlearning by not doing.

- Q 14. In the above passage, ‘rules of thumb’ means
- Rules based on theory
  - Rules based on practice
  - Rules based on signature
  - Rules based on law
- Q 15. Which of the following sentences best sums up the meaning of the passage most accurately?
- The passage enumerates biases towards recent choices.
  - The passage suggests that learning is as valuable as unlearning.
  - The passage draws a hierarchy among various kinds of motivations.

- The passage discusses the several motivations for agents’ lack of deviation from their recent choices.

- Q 16. Identify the grammatically correct sentence form the following options without distorting the meaning of the passage.
- One of the agents’ choices is motivated by the availability bias.
  - One of the agent’s choices is motivated by the availability bias.
  - One of agent’s choices is motivated by the availability bias.
  - One of the choices of the agents is motivated by the availability bias.

**Direction:** Read the following options and answer the question.

- Q 17. In the options given below, identify the one sentence which has an incorrect spelling:
- The need to handle hazardous radio-active materials in nuclear science has triggered the guest for robotic and remote-handling appliances in nuclear laboratories since the early days of nuclear research.
  - Robotics is multidisciplinary in nature, and people working in this area come from varied backgrounds.
  - There is a pressing need for intellectual property rights and trademark specialists along with corporate communication and sales personnel.
  - More infrastructure and facilities will definitely provide a filip to the sector.

**Direction:** Question 18 consists of four jumbled sentences, which need to be arranged in logical sequence. Choose the option which has the correct logical sequence.

- Q 18. i. Ironically, the Iranian television programmers had mainly chosen that film because it lacks female characters.
- ii. A few years ago some members of the Iranian Parliament set up an investigative committee to examine the content of national television.
- iii. The cartoon version of Around the World in Eighty Days was also castigated, because the main character – a lion – was British and the film ended in that bastion of imperialism, London.
- iv. The committee issued a lengthy report in which it condemned the showing of Billy Budd, because it claimed, the story promoted homosexuality.
- ii-i-iv-iii
  - ii-iv-iii-i
  - ii-iv-i-iii
  - i-iii-iv-ii

## 6.6 ♦♦ Section Tests

**Direction for questions 19 and 20:** Choose the closest grammatical and meaningful option to fill in the blank in the sentence.

Q 19. It is perhaps a tribute to his personal integrity and scrupulously honest reputation \_\_\_\_\_ calls him a fine soldier.

- (a) while none of the generals he acted against
- (b) whereas one of the generals he acted against also
- (c) that even one of the generals he acted against
- (d) that some of the generals he acted against

Q 20. We lived in a culture that denied any merit to literary works, \_\_\_\_\_ something seemingly more urgent, namely ideology.

- (a) consider them more important only when they were handmaidens to
- (b) considering them important only when they were handmaidens to
- (c) are considering them important only when they were handmaidens to
- (d) seem to consider them important only when they were handmaidens to

**Direction for questions 21 to 24:** Read the following information and answer the questions.

An ice-cream maker is experimenting with six chemical essences, U, V, W, X, Y and Z for developing a new flavour called “SEETER and HEALTHIER”. The details of these chemical essences are as follows:

- (a) U is sweeter than V and healthier than Z.
- (b) V is sweeter than Y and less healthy than Z.
- (c) W is less sweet than X and less healthy than U.
- (d) X is less sweet and healthier than Y.
- (e) Y is less sweet and healthier than U.
- (f) Z is sweeter than U and less healthy than W.

Q 21. Which is the sweetest essence?

- (a) U
- (b) W
- (c) X
- (d) Z

Q 22. Which of the following essences is/are both sweeter and healthier than V?

- (a) U only
- (b) W only
- (c) Z only
- (d) U and Z only

Q 23. Which of the following essences is/are sweeter than Y and healthier than W?

- (a) U only
- (b) V only
- (c) Z only
- (d) U and V only

Q 24. Which is the least healthy essence?

- (a) U
- (b) V
- (c) W
- (d) Y

**Direction for questions 25 to 27:** Read the following information and answer the questions.

Every morning five friends Mahima, Nismisha, Omez, Parul and Quan go to the railway station and board a train that stops at six subsequent stations which are numbered 1 to 6. The train stops at Station 1 and proceeds in numerical order to Station 6.

- (a) Mahima gets off either at Station 1 or at Station 2.
- (b) Omez always gets off one station before or one station after Quan's station.
- (c) Parul always gets off at Station 3.
- (d) Quan always gets off at Station 4, 5 or 6.
- (e) No one re-boards the morning train after getting off.

Q 25. On a morning, when no one gets off at Station 5 or 6, which of the following MUST be true?

- (a) Mahima gets off at Station 2
- (b) Nismisha gets off at Station 2
- (c) Omez gets off at Station 4
- (d) Omez and Parul get off at the same station

Q 26. On a morning, when Quan gets off at Station 4 and no more than two of the friends get off at any one station, which of the following MUST be true?

- I. Station 3
- II. Station 4
- III. Station 5
- (a) I only
- (b) II and III only
- (c) III only
- (d) I and II only

Q 27. On a morning, when no one gets off at Station 1 and each of the five friends gets off at a different station, which of the following cannot be true?

- (a) Nismisha gets off one station before Quan.
- (b) Parul gets off one station before Omez.
- (c) Mahima gets off at Station 2.
- (d) Nismisha gets off at Station 5.

**Direction for question 28:** There are four statements followed by four conclusions. You have to take the given statements to be true even if they seem to be at variance from commonly known facts, and decide which of the given conclusions logically follows from the given statements.

Q 28. **Statements:**

- i. All cricketers are football players.
- ii. Some hockey players are cricketers.
- iii. No football player is a basketball player.
- iv. No basketball player is a hockey player.

**Conclusions:**

- I. Some hockey players are football players.
- II. No basketball player is a cricketer.
- III. Some hockey players are basketball players.
- IV. Some football players are cricketers.

- (a) I only                    (b) I, II and IV only  
(c) I and IV only            (d) I and II only

Q 29. They are five teams – Paraguay, Qatar, Russia, Spain and Turkey playing in a tournament where each team plays against every other team only once. These are the following possibilities: each match can result in a draw where each team scores two points; or a team can win where it scores three points, while the losing team scores one point.

If Paraguay has won all the matches and Turkey has lost all the matches and all the remaining three teams score

equal points, how many points have each of the three remaining teams scored?

(a) 5                        (b) 7  
(c) 8                        (d) 6

Q 30. There is a 4-digit number in which first digit is one-third the second digit, third digit is the sum of first and second digit, and the last is three times the second digit. What is the sum of digits of that number? [1st digit is leftmost digit and 4th digit is unit digit].

(a) 16                        (b) 17  
(c) 14                        (d) 20

# ANSWERS



## SECTION TEST 1

Q. No.	Answer						
1	(b)	2	(d)	3	(c)	4	(a)
5	(c)	6	(d)	7	(c)	8	(a)
9	(c)	10	(b)	11	(a)	12	(b)
13	(b)	14	(b)	15	(d)	16	(a)
17	(d)	18	(c)	19	(c)	20	(b)
21	(d)	22	(d)	23	(a)	24	(b)
25	(d)	26	(b)	27	(a)	28	(b)
29	(c)	30	(b)				

## HINTS AND EXPLANATIONS

### SECTION TEST 1



17. (d) In option (d), Fillip is the right spelling of filip. Hence, option (d) is the answer.

#### Solution to Q21 to 24:

If we compare these chemical by sweetness, then following observation can be made:

$$Z > U > V > Y > X > W$$

And if we compare these chemical by healthiness, then following observation can be made:

$$X > Y > U > W > Z > V$$

21. (d) Now we can easily say that Z is the sweetest essence. Hence, option (d) is the answer.

22. (d) The essence, which are sweeter and healthier than V are U and Z only. Hence, option (d) is the answer.

23. (a) The essence, which is sweeter than Y and healthier than W is U. Therefore, answer is option (a).

24. (b) The least healthy essence is V.

29. (c) The remaining teams Q, R and S have played two matches each, in which they have lost one match and won one match. Then points scored by Q, R and S is 4 each in these two matches. Now they have to play two matches each with one another, then there are two possibilities for equal points scored:

- (1) If every remaining team has won one match and lost one match, in this case, total points scored by each remaining team are 8.  
(2) If every remaining match was drawn, In this case, total points scored by each remaining team are also 8.  
Hence, option (c) is the answer.

30. (b) **Method 1:**

Let the second number is  $y$ . Then first digit is  $\frac{y}{3}$ , third digit is  $\frac{4}{3}y$  and fourth digit is  $3y$ . Therefore sum of digits  $= \frac{y}{3} + y + \frac{4}{3}y + 3y = \frac{17}{3}y$

We know that  $\frac{17}{3}y$  should be an integer, then  $y$  should be 3 or 6. But for  $y = 6$ , the given condition will not satisfy, Hence, answer is 17.

#### Method 2:

Since 1st digit should be 1/3rd of the second digit, Hence, second digit should be either 3 or 6 or 9. But last statement says that last digit (4th digit) is three times of the 2nd digit, thus, 2nd digit should be 3. Hence, 1st digit = 1.

So, third digit = 1st digit + 2nd digit = 1 + 3 = 4

And last digit = 3 × 2nd digit = 3 × 3 = 9

Hence, number = 1349

So, sum of digits = 1 + 3 + 4 + 9 = 17

Hence, option (b) is the answer.

# Section Test 2



## ABOUT The Test

- 1. There are 30 questions in this test
- 2. There is one-third negative marking
- 3. You have 70 minutes to solve this test

Q 1. Three children won prizes in the Tech India Quiz contest. They are from three schools: Lancer, Columbus and Leelavati, which are located in different states. One of the children is named Binod. Lancer school's contestant did not come first. Leelavati school's contestant's name is Rahman. Columbus school is not located in Andhra Pradesh. The contestant from Maharashtra got third place and is not from Leelavati School. The contestant from Karnataka did not secure first position. Columbus school's contestant's name is not Badal.

Which of the following statements is TRUE?

- (a) 1st prize: Rahman (Leelavati), 2nd prize: Binod (Columbus), 3rd prize: Badal (Lancer)
- (b) 1st prize: Binod (Columbus), 2nd prize: Rahman (Leelavati), 3rd prize: Badal (Lancer)
- (c) 1st prize: Rahman (Lancer), 2nd prize: Badal (Columbus), 3rd prize: Binod (Leelavati)
- (d) 1st prize: Binod (Columbus), 2nd prize: Badal (Lancer), 3rd prize: Rahman (Leelavati)

Q 2. Mother Dairy sells milk packets in boxes of different sizes to its vendors. The vendors are charged Rs 20 per packet up to 2000 packets in a box. Additions can be made only in a lot size of 200 packets. Each addition of one lot to the box results in a discount of one rupee an

all the packets in the box. What should be the maximum size of the box that would maximize the revenue per box for Mother Dairy?

- (a) 2400 packets
- (b) 3000 packets
- (c) 4000 packets
- (d) None of these

Q 3. All employees have to pass through three consecutive entrance doors to enter into the office and one security guard is deployed at each door. These security guards report to the manager about those who come to office after 10 AM. Ms Rani is an employee of this office and came late on the annual day. In order to avoid report to the manager she had to pay each security guard half of the money she had in her purse and 2 rupees more besides. She found only one rupee with her at the end. How much money Ms Rani had before entering the office on the annual day?

- (a) Rs 40
- (b) Rs 36
- (c) Rs 25
- (d) Rs 42

**Direction for questions 4 and 5:** Answer the questions based on the following information. Director of an institute wants to distribute teaching assignments of HRM, Psychology, Development Studies, Trade policy and Finance to five of six newly appointed faculty members.

## 6.10 ✦✦ Section Tests

**Prof. Fotedar does not want any assignment if Prof. Das gets one of the five. Prof. Chaudhury desires either HRM or Finance or no assignment. Prof. Banik opines that if Prof. Das gets either Psychology or Trade Policy then she must get the other one. Prof. Eswar insists on an assignment if Prof. Acharya gets one.**

Q 4. Which of the following is valid faculty – assignment combination if all the faculty preferences are considered?

- (a) Prof. Acharya – HRM, Prof. Banik – Psychology, Prof. Chaudhury – Development studies, Prof. Das – Trade Policy, Prof. Eswar – Finance
- (b) Prof. Chaudhury – HRM, Prof. Das – Psychology, Prof. Acharya – Development studies, Prof. Banik – Trade Policy, Prof. Eswar – Finance
- (c) Prof. Acharya – HRM, Prof. Banik – Psychology, Prof. Eswar – Development studies, Prof. Das – Trade Policy, Prof. Fotedar – Finance
- (d) Prof. Banik – HRM, Prof. Fotedar – Psychology, Prof. Eswar – Development studies, Prof. Chaudhury – Trade Policy, Prof. Acharya – Finance

Q 5. If Prof. Acharya gets HRM and Prof. Chaudhury gets Finance, then which of the following is not a correct faculty-assignment combination assuming all faculty preferences are considered?

- (a) Prof. Das – Development Studies, Prof. Banik – Trade Policy
- (b) Prof. Fotedar – Development Studies, Prof. Banik – Trade Policy
- (c) Prof. Banik – Development Studies, Prof. Eswar – Trade Policy
- (d) Prof. Banik – Development Studies, Prof. Das – Trade Policy

**Direction for questions 6 to 9: Read the passage given below and solve the questions based on it.**

Have you ever come across a painting, by Picasso, Mondrian, Miro, or any other modern abstract painter of this century, and found yourself engulfed in a brightly coloured canvas which your senses cannot interpret? Many people would tend to denounce abstractionism as senseless trash. These people are disoriented by Miro's bright, fanciful creatures and two-dimensional canvases. They click their tongues and shake their heads at Mondrian's grid works, declaring the poor guy played too many scrabble games. They silently shake their heads in sympathy for Picasso, whose gruesome, distorted figures must be a reflection of his mental health. Then, standing in front of a work by Charlie Russell, the famous Western artist, they'll declare it a work of God. People feel more comfortable with something they can relate to and understand immediately without too much thought. This is the case with the work of Charlie Russell. Being able to recognize the elements in his paintings—trees, horses and cowboys—gives people a safety line to their world of “reality”. There are some who would disagree when I say

abstract art requires more creativity and artistic talent to produce a good piece than does representational art, but there are many weaknesses in their arguments.

People who look down on abstract art have several major arguments to support their beliefs. They feel that artists turn abstract because they are not capable of the technical drafting skills that appear in a Russell; therefore, such artists create an art form that anyone is capable of and that is less time consuming, and then parade it as artistic progress. Secondly, they feel that the purpose of art is to create something of beauty in an orderly, logical composition. Russell's compositions are balanced and rational, everything sits calmly on the canvas, leaving the viewer satisfied that he has seen all there is to see. The modern abstractionists, on the other hand, seem to compose their pieces irrationally. For example, upon seeing Picasso's Guernica, a friend of mine asked me, “What's the point?” Finally, many people feel that art should portray the ideal and real. The exactness of detail in Charlie Russell's work is an example of this. He has been called a great historian because his pieces depict the life style, dress, and events of the times. His subject matter is derived from his own experiences on the trail, and reproduced to the smallest detail.

I agree in part with many of these arguments, and at one time even endorsed them. But now, I believe differently. Firstly I object to the argument that abstract artists are not capable of drafting. Many abstract artists, such as Picasso, are excellent draftsmen. As his work matured, Picasso became more abstract in order to increase the expressive quality of his work. Guernica was meant as a protest against the bombing of that city by the Germans. To express the terror and suffering of the victims more vividly, he distorted the figures and presented them in a black and white journalistic manner. If he had used representational images and colour, much of the emotional content would have been lost and the piece would not have caused the demand for justice that it did. Secondly, I do not think that a piece must be logical and aesthetically pleasing to be art. The message it conveys to its viewers is more important. It should reflect the ideals and issues of its time and be true to itself, not just a flowery, glossy surface. For example, through his work, Mondrian was trying to present a system of simplicity, logic, and rational order. As a result, his pieces did end up looking like a scrabble board.

Miro created powerful, surrealistic images from his dreams and subconscious. These artists were trying to evoke a response from society through an expressionistic manner. Finally, -abstract artists and representational artists maintain different ideas about ‘reality’. To the representational artist, reality is what he sees with his eyes. This is the reality he reproduces on canvas. To the abstract artist, reality is what he feels about what his eyes see. This is the reality he interprets on canvas. This can be illustrated by Mondrian's Trees series. You can actually see the progression from the early recognizable, though abstracted, Trees, to his final solution, the grid system.

A cycle of abstract and representational art began with the first scratching of prehistoric man. From the abstractions of ancient Egypt to representational, classical Rome, returning to abstractionism in early Christian art and so on up to the present day, the cycle has been going on. But this day and age may witness its death through the camera. With film, there is no need to produce finely detailed, historical records manually; the camera does this for us more efficiently. Maybe, representational art would cease to exist. With abstractionism as the victor of the first battle, may be a different kind of cycle will be touched off. Possibly, sometime in the distant future, thousands of years from now, art itself will be physically non-existent. Some artists today believe that once they have planned and constructed a piece in their mind, there is no sense in finishing it with their hands; it has already been done and can never be duplicated.

Q 6. The author argues that many people look down upon abstract art because they feel that:

- (a) Modern abstract art does not portray what is ideal and real.
- (b) Abstract artists are unskilled in matters of technical drafting.
- (c) Abstractionists compose irrationally.
- (d) All of the above

Q 7. In the author's opinion, Picasso's Guernica created a strong demand for justice since

- (a) it was a protest against the German bombing of Guernica.
- (b) Picasso managed to express the emotional content well with his abstract depiction.
- (c) it depicts the terror and suffering of the victims in a distorted manner.
- (d) it was a mature work of Picasso's, painted when the artist's drafting skills were excellent.

Q 8. The author acknowledges that Mondrian's pieces may have ended up looking like a scrabble board because

- (a) many people declared the poor guy played too many scrabble games.
- (b) Mondrian believed in the 'grid-works' approach to abstractionist painting.
- (c) Mondrian was trying to convey the message of simplicity and rational order.
- (d) Mondrian learned from his Trees series to evolve a grid system.

Q 9. The main difference between the abstract artist and the representational artist in matters of the 'ideal' and the 'real', according to the author, is:

- (a) How each chooses to deal with 'reality' on his other canvas.
- (b) The superiority of interpretation of reality over reproduction of reality.
- (c) The different values attached by each to being a historian.
- (d) The varying levels of drafting skills and logical thinking abilities.

**Direction for questions 10 to 12: Answer the questions based on the following information.**

In a race competition certain rules are given for the participants to follow. To control direction and speed of the motorists, guards are placed at different signal points with caps of different colour. Guard with red cap indicates the direction of participant's movement and guards with green cap indicates the speed of the participant's movement.

At any signal point presence of three guards, two guards and one guard with red cap means the participant must stop, turn left and turn right respectively. Signal points with three guards, two guards and one guard with green cap means the participants must move at 10, 4 and 2 km/h respectively. Kartikay, one of the participants, starts at a point where his car was heading towards north and he encountered signals as follows: at start point one guard with green cap; after half an hour two guards with red cap and two guards with green cap at first signal; after fifteen minutes one guard with red cap at second signal; after half an hour one guard with red cap and three guards with green caps at third signal; after 24 minutes two guard with red cap and two guards with green cap at fourth signal; after 15 minutes three guard with red cap at fifth signal. (Time mentioned in each case is applicable after crossing the previous signal).

Q 10. Total distance travelled by Kartikay from starting point till last signal is:

- (a) 9 km
- (b) 10 km
- (c) 8 km
- (d) 12 km

Q 11. What would be the final position of Kartikay if one guard with red cap and two guards with green caps were placed at the first signal point after the starting point?

- (a) 3.0 km to the west and 2.0 km to the south
- (b) 3.0 km to the west and 4.0 km to the north
- (c) 5.0 km to the east and 4.0 km to the north
- (d) 2.0 km to the west and 4.0 km to the south

Q 12. If at the starting point Kartikay was heading towards south what would be his final position?

- (a) 3.0 km to the east and 4.0 km to the south
- (b) 5.0 km to the east and 4.0 km to the south
- (c) 3.0 km to the west and 4.0 km to the south
- (d) 5.0 km to the west and 2.0 km to the north

**Direction for questions 13 to 15: Answer the questions based on the following information. Mr Mansingh has five sons – Arun, Mahi, Rohit, Nilesh and Saurav, and three daughters – Tamanna, Kuntala and Janaki. Three sons of Mr Mansingh were born first followed by two daughters. Saurav is the eldest child and Janki is the youngest. Three of the children are studying at Trinity School and three are studying at St. Stefan. Tamanna and Rohit study at St. Stefan school. Kuntala, the eldest daughter, plays chess. Mansorover school offers cricket only, while Trinity school offers chess. Beside, these schools offer no other games. The children who are at Mansorover school have been born in succession. Mahi and Nilesh are cricketers while Arun plays football. Rohit who was born just before Janki, plays hockey.**

## 6.12 ✦✦ Section Tests

Q 13. Arun is the \_\_\_\_\_ child of Mr Mansingh.

- (a) 2nd
- (b) 3rd
- (c) 6th
- (d) 5th

Q 14. Saurav is a student of which school?

- (a) Trinity
- (b) St. Stefan
- (c) Mansorover
- (d) Cannot be determined

Q 15. What game does Tamanna play?

- (a) Cricket
- (b) Hockey
- (c) Football
- (d) Cannot be determined

**Direction for questions 16 to 18:** Sentences given in each question, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of sentence from among the four given choices to construct a coherent paragraph.

Q 16. A. In rejecting the functionalism in positivist organization theory, either wholly or partially, there is often a move towards a political model of organization theory.

B. Thus the analysis would shift to the power resources possessed by different groups in the organization and the way they use these resources in actual power plays to shape the organizational structure.

C. At the extreme, in one set of writings, the growth of administrators in the organization is held to be completely unrelated to the work to be done and to be caused totally by the political pursuit of self-interest.

D. The political model holds that individual interests are pursued in organizational life through the exercise of power and influence.

- (a) ABCD
- (b) CBAD
- (c) DBCA
- (d) ABDC

Q 17. A. Group decision making, however, does not necessarily fully guard against arbitrariness and anarchy, for individual capriciousness can get substituted by collusion of group members.

B. Nature itself is an intricate system of checks and balances, meant to preserve the delicate balance between various environmental factors that affect our ecology.

C. In institutions also, there is a need to have in place a system of checks and balances which inhibits the concentration of power in only some individuals.

D. When human interventions alter this delicate balance, the outcomes have been seen to be disastrous.

- (a) CDAB
- (b) BCAD
- (c) CABD
- (d) BDCA

Q 18. A. He was bone-weary and soul-weary, and found himself muttering, "Either I cannot manage this place, or it's unmanageable."

B. To his horror, he realized that he had become the victim of an amorphous, unwitting, unconscious

conspiracy to immerse him in routine work that had no significance.

C. It was one of those nights in the office, when the office clock was moving towards four in the morning and Dennis was still not through with the incredible mass of paper stacked before him.

D. He reached for his calendar and ran his eyes down each hour, half-hour, and quarter-hour, to see where his time had gone that day, the day before, the month before.

- (a) ABCD
- (b) CADB
- (c) BDCA
- (d) DCBA

**Direction for questions 19 to 22:** Read each short passage given below and answer the question that follows it.

Q 19. Three airlines—IA, JA and SA operate on the Delhi-Mumbai route. To increase the number of seats sold, SA reduced its fares and this was emulated by IA and JA immediately. The general belief was that the volume of air travel between Delhi and Mumbai would increase as a result.

Which of the following, if true, would add credence to the general belief?

- (a) Increase in profitability of the three airlines.
- (b) Extension of the discount scheme to other routes.
- (c) A study that shows that air travellers in India are price-conscious.
- (d) A study that shows that as much as 80% of air travel in India is company-sponsored.

Q 20. According to McNeill, a Brahmin priest was expected to be able to recite at least one of the Vedas. The practice was essential for several centuries when the Vedas had not yet been written down. It must have had a selective effect, since priests would have been recruited from those able or willing to memorize long passages. It must have helped in the dissemination of the work, since a memorized passage can be duplicated many times.

Which one of the following can be inferred from the above passage?

- (a) Reciting the Vedas was a Brahmin's obligation.
- (b) The Vedic priest was like a recorded audio cassette.
- (c) McNeill studied the behaviour of Brahmin priests.
- (d) Vedic hymns had not been scripted.

Q 21. Developed countries have made adequate provisions for social security for senior citizens. State insurers (as well as private ones) offer medicare and pension benefits to people who can no longer earn. In India, with the collapse of the joint family system, the traditional shelter of the elderly has disappeared. And a State faced with a financial crunch is not in a position to provide social security. So, it is advisable that the working population give serious thought to building a financial base for itself.

Which one of the following, if it were to happen, weakens the conclusion drawn in the above passage the most?

- (a) The investable income of the working population, as a proportion of its total income, will grow in the future.
  - (b) The insurance sector is underdeveloped and trends indicate that it will be extensively privatized in the future.
  - (c) India is on a path of development that will take it to a developed country status, with all its positive and negative implications.
  - (d) If the working population builds a stronger financial base, there will be a revival of the joint family system.
- Q 22. Various studies have shown that our forested and hilly regions and, in general, areas where biodiversity—as reflected in the variety of flora—is high, are the places where poverty appears to be high. And these same areas are also the ones where educational performance seems to be poor. Therefore, it may be surmised that, even disregarding poverty status, richness in biodiversity goes hand in hand with educational backwardness.
- Which one of the following statements, if true, can be said to best provide supporting evidence for the surmise mentioned in the passage?
- (a) In regions where there is little variety in flora, educational performance is seen to be as good as in regions with high variety in flora, when poverty levels are high.
  - (b) Regions which show high biodiversity also exhibit poor educational performance, at low levels of poverty.
  - (c) Regions which show high biodiversity reveal high levels of poverty and poor educational performance.
  - (d) In regions where there is low biodiversity, at all levels of poverty, educational performance is seen to be good.

**Direction for questions 23 to 25:** Read the passage given below and solve the questions based on it.

Each one has his reasons: for one art is a flight; for another, a means of conquering. But one can flee into a hermitage, into madness, into death. One can conquer by arms. Why does it have to be writing, why does one have to manage his escapes and conquests by writing? Because, behind the various alms of authors, there is a deeper and more immediate choice which is common to all of us. We shall try to elucidate this choice, and we shall see whether it is not in the name of this very choice of writing that the engagement of writers must be required.

Each of our perceptions is accompanied by the consciousness that human reality is a ‘revealer’, that is, it is through human reality that ‘there is’ being, or, to put it differently, that man is the means by which things are manifested. It is our presence in the world which multiplies

relations. It is we who set up a relationship between this tree and that bit of sky. Thanks to us, that star which has been dead for millennia, that quarter moon, and that dark river are disclosed in the unity of a landscape. It is the speed of our auto and our airplane which organizes the great masses of the earth. With each of our acts, the world reveals to us a new face. But, if we know that we are directors of being, we also know that we are not its producers. If we turn away from this landscape, it will sink back into its dark permanence. At least, it will sink back; there is no one mad enough to think that it is going to be annihilated. It is we who shall be annihilated, and the earth will remain in its lethargy until another consciousness comes along to awaken it. Thus, to our inner certainty of being ‘revealers’ is added that of being inessential in relation to the thing revealed.

One of the chief motives of artistic creation is certainly the need of feeling that we are essential in relationship to the world. If I fix on canvas or in writing a certain aspect of the fields or the sea or a look on someone’s face which I have disclosed, I am conscious of having produced them by condensing relationships, by introducing order where there was none, by imposing the unity of mind on the diversity of things. That is, I think myself essential in relation to my creation. But this time it is the created object which escapes me; I cannot reveal and produce at the same time. The creation becomes inessential in relation to the creative activity. First of all, even if it appears to others as definitive, the created object always seems to us in a state of suspension; we can always change this line, that shade, that word. Thus, it never forces itself. A novice painter asked his teacher, ‘When should I consider my painting finished?’ And the teacher answered, ‘When you can look at it in amazement and say to yourself “I’m the one who did that !

Which amounts to saying ‘never’. For it is virtually considering one’s work with someone else’s eyes and revealing what has been created. But it is self-evident that we are proportionally less conscious of the thing produced and more conscious of our productive activity. When it is a matter of poetry or carpentry, we work according to traditional norms, with tools whose usage is codified; it is Heidegger’s famous ‘they’ who are working with our hands. In this case, the result can seem to us sufficiently strange to preserve its objectivity in our eyes. But if we ourselves produce the rules of production, the measures, the criteria, and if our creative drive comes from the very depths of our heart, then we never find anything but ourselves in our work. It is we who have invented the laws by which we judge it. It is our history, our love, our gaiety that we recognize in it. Even if we should regard it without touching it any further, we never receive from it that gaiety or love. We put them into it. The results which we have obtained on canvas or paper never seem to us objective. We are too familiar with the processes of which they are the effects. These processes remain a subjective discovery; they are ourselves, our inspiration, our ruse, and when we seek to perceive our work, we create it again, we repeat mentally the operations which produced it; each of its aspects appears as a result. Thus, in the perception, the object is given as the essential thing and

## 6.14 ◇◇ Section Tests

the subject as the inessential. The latter seeks essentiality in the creation and obtains it, but then it is the object which becomes the inessential.

The dialectic is nowhere more apparent than in the art of writing, for the literary object is a peculiar top which exists only in movement. To make it come into view a concrete act called reading is necessary, and it lasts only as long as this act can last. Beyond that, there are only black marks on paper. Now, the writer cannot read what he writes, whereas the shoemaker can put on the shoes he has just made if they are to his size, and the architect can live in the house he has built. In reading, one foresees; one waits. He foresees the end of the sentence, the following sentence, the next page. He waits for them to confirm or disappoint his foresights. The reading is composed of a host of hypotheses, followed by awakenings, of hopes and deceptions. Readers are always ahead of the sentence they are reading in a merely probable future which partly collapses and partly comes together in proportion as they progress, which withdraws from one page to the next and forms the moving horizon of the literary object. Without waiting, without a future, without ignorance, there is no objectivity.

Q 23. It is the author's contention that

- (a) artistic creations are results of human consciousness.
- (b) the very act of artistic creation leads to the escape of the created object.
- (c) man can produce and reveal at the same time.
- (d) an act of creation forces itself on our consciousness leaving us full of amazement.

Q 24. The passage makes a distinction between perception and creation in terms of

- (a) objectivity and subjectivity.
- (b) revelation and action.
- (c) objective reality and perceived reality.
- (d) essentiality and non-essentiality of objects and subjects.

Q 25. The art of writing manifests the dialectic of perception and creation because

- (a) reading reveals the writing till the act of reading lasts.
- (b) writing to be meaningful needs the concrete act of reading.
- (c) this art is anticipated and progresses on a series of hypotheses.
- (d) this literary object has a moving horizon brought about by the very act of creation.

**Direction for questions 15 to 19:** *The following sentences each contain two blanks, indicating that something has been left out of the sentence. Each answer choice contains one word or a set of words. Select the word or set of words, that, when inserted in the blank(s), best fits the context of the sentence.*

Q 26. Although some think the terms "bug" and "insect" are \_\_\_\_\_, the former term actually refers to \_\_\_\_\_ group of insects.

- (a) parallel, an identical
- (b) precise, an exact
- (c) interchangeable, a particular
- (d) exclusive, a separate

Q 27. The novel's protagonist, a pearl diver, naively expects that the buyers will compete among themselves to pay him the best price for his pearl, but instead they \_\_\_\_\_ to \_\_\_\_\_ him.

- (a) venture, reward
- (b) pretend, praise
- (c) conspire, reimburse
- (d) collude, swindle

Q 28. His \_\_\_\_\_ sense of humor caused more \_\_\_\_\_ than he must have intended.

- (a) debunk, sobriety
- (b) wry, confusion
- (c) prominent, impudence
- (d) incorrigible, paucity

**Direction for questions 29 and 30:** *For each of the two questions, indicate which of the statements given, with that particular question is consistent with the description of the unseasonable man in the passage below.*

Unreasonableness is a tendency to do socially permissible things at the wrong time. The unreasonable man is the sort of person who comes to confide in you when you are busy. He serenades his beloved when she is ill. He asks a man who has just lost money by paying a bill for a friend to pay a bill for him. He invites a friend to go for a ride just after the friend has finished a long car trip. He is eager to offer services which are not wanted but which cannot be politely refused. If he is present at arbitration, he stirs up dissension between the two parties, who were really anxious to agree. Such is the unreasonable man.

Q 29. He tends to

- (a) entertain women.
- (b) be a successful arbitrator when dissenting parties are anxious to agree.
- (c) be helpful when solicited.
- (d) tell a long story to people who have heard it many times before.

Q 30. The unreasonable man tends to

- (a) bring a higher bidder to a salesman who has just closed a deal.
- (b) disclose confidential information to others.
- (c) sing the praises of the bride when he goes to a wedding.
- (d) sleep late and rise early.

# ANSWERS



## SECTION TEST 2

Q. No.	Answer						
1	(a)	2	(b)	3	(b)	4	(b)
5	(d)	6	(d)	7	(b)	8	(c)
9	(a)	10	(a)	11	(a)	12	(c)
13	(c)	14	(a)	15	(d)	16	(a)
17	(d)	18	(b)	19	(c)	20	(b)
21	(c)	22	(d)	23	(b)	24	(d)
25	(a)	26	(c)	27	(d)	28	(b)
29	(d)	30	(a)				

## HINTS AND EXPLANATIONS

### SECTION TEST 2



26. (c) The word “although” indicates that the two parts of the sentence contrast with each other: although most people think about the terms “bug” and “insect” one way, something else is actually true about the terms. Option (c) logically completes the sentence, indicating that while most people think the terms are “interchangeable,” the term “bug” actually refers to a “particular” group of insects.
27. (d) The sentence states that the pearl diver expected one kind of behaviour from the buyers, but instead they behaved in a different way. Since the pearl diver expected the buyers to “compete among themselves to pay him the best price,” the correct answer must

be two words that make the last clause describe an opposite situation. Option (d) is the best answer: Instead of competing to pay the pearl diver the best price, the buyers colluded (or plotted) to “swindle” him.

28. (b) The clue word in this sentence is “caused”. The speaker had some unintended effect on his audience. Wry means dry or twisted humor and confusion would certainly be a potential unintended effect from this speaking style. Hopefully, you were able to use process of elimination on many of these answer choices as the dual words doubles the chances you will know the meaning of at least one of the words and be able to eliminate the answer choice if it does not fit. The correct answer is option (b).

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# Section Test 3

# ABOUT The Test

1. There are 30 questions in this test
  2. There is one-third negative marking
  3. You have 70 minutes to solve this test

**Direction for questions 1 to 4:** Go through the information given below and solve the questions based on it.

Five students – Aman, Gaurav, Chandra, Pooja and Mudit – take an examination in which there are eight questions numbered 1 to 8. Each question has four options – A, B, C and D. Only one of them is right. A student gets one mark for a right answer and loses one third mark for a wrong answer. The answers marked by the five students for each of the eight questions are given below:

	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q5</b>	<b>Q6</b>	<b>Q7</b>	<b>Q8</b>
Aman	A	B	B	C	D	C	C	A
Gaurav	A	C	B	D	D	B	D	D
Chandra	B	B	B	D	D	C	C	D
Pooja	C	B	B	C	C	B	D	C
Mudit	A	C	D	B	D	C	C	D

Following observations are also made:

- (1) It is also known that if a student marked the same option (from any of the four options) for all the eight questions, he would have got a total of zero mark.

- (2) Gaurav topped the examination with a total of 5.33 marks.
  - (3) Pooja had the least total score with zero marks.
  - (4) Had Mudit marked one more answer correctly and Gaurav marked one more answer wrongly, their scores would have interchanged.
  - (5) Three of the eight questions were answered correctly by Aman as well as Chandra and both of them scored equal marks.

**Direction for questions 5 to 8:** *Read the passage given below and solve the questions based on it.*

The main idea conveyed by the report is that our children do not get a chance to enjoy learning at school because the syllabi are irrationally organized, teaching is text-book centered, and the system of examinations instills fear and encourages mechanical repetition. Textbooks developed along the lines of re-conceptualized syllabi can attempt to integrate positive values, life skills, aesthetic sensibility and concern for the environment. They are interactive and make a conscious effort to point both children and the teachers towards other sources of learning such as neighbourhood, nature, etc. In addition two parallel challenges deserve attention. The first is examination reforms. Rigid indifference to individual differences is the major flaw of the present system. From the quality of questions to the manner of evaluation, it favours drilled preparedness and ignores independent thought while the unrealistically high cut-offs in coveted colleges are a further sign of systematic inefficiency. It is hardly surprising that the very thought of examinations makes the young depressed. Moreover, practices of splitting unified topics into arbitrary bits carrying small marks value encourage teachers to concentrate on scoring topics overlooking the importance of perspective and overall understanding. Little surprise that many elite high-fee schools are opting for International Baccalaureate not because it offers status with its global certification but for its flexibility and respect for individual differences in learning.

The second area is teacher training, which suffers from obsolete notions. Most teachers are trained mainly to cover the syllabus in a mechanical exam-oriented manner. By insisting that every child move at the same pace in all subjects teacher encourage rote learning and ridicule for those who fall behind. Teacher training, whether for nursery or secondary school teachers should be embedded in courses which have the capacity to develop both the teacher's personality and perspective on society by linking subject learning with reflective and creative project work. The ultimate responsibility lies with universities and institutes of higher learning to ensure the quality of all teachers. Initiatives to improve the content of teacher training courses will ensure utilization of desolate university campuses during summer vacations which conceal an enormous waste of infrastructure and expertise. The quality of education is a reflection of the quality of teachers and major improvements in their training and working conditions will motivate the young to pursue a teaching career and determine how India fares in the pursuit of economic and social development in the years to come.

- Q 5. Which of the following factors is responsible for children's dislike of learning?
- Rigid, logical, systematic organization of syllabus.
  - Teaching methodology which does not focus on text books.
  - Examination pattern which rewards rote learning.
- (a) Only A                   (b) Both A and B  
 (c) Only C                   (d) All A, B and C

Q 6. Which of the following is not true in the context of the passage?

- Examinations arouse negative emotions in students.
- Weak students are at a disadvantage if teachers force students to learn at same speed.
- Holding teacher training courses only during the academic year will help teachers cover the syllabus in an exam-oriented manner.
- The responsibility for improving the quality of teachers lies in the hands of universities.

Q 7. According to the author, which of the following conditions will influence India's future development?

- Replacing traditional educational systems with globally accepted foreign system.
  - Improving employment conditions of teaching staff.
  - Getting global accreditation for India college courses
- (a) Only A  
 (b) Both A and B  
 (c) Both B and C  
 (d) Only B

Q 8. What will be the impact of having an interactive syllabus?

- (a) Teachers and students will explore sources other than the textbook.  
 (b) Students may get distracted and perform poorly in examinations.  
 (c) Weaker students may get left behind.  
 (d) Teachers may not be able to cover the entire syllabus for the examination.

**Direction for questions 9 to 11:** *Each question given below has an opening statement and a closing statement. In between, there are four other sentences labeled A to D. You are required to choose the most coherent and logical sequencing of the four sentences.*

Q 9. 1. The prospects for democracy in the Third World are again a subject of practical concern.

- They have generally failed to produce material prosperity or political stability.
  - At worst their oppressiveness involved incarceration and brutality.
  - Various forms of dictatorship have been tried.
  - Their repressiveness has at best curtailed freedom of expression.
6. But is awareness of the consequences of dictatorship enough to ensure the triumph of democracy?
- (a) ABCD                   (b) CADB  
 (c) DBAC                   (d) CBDA

Q 10. 1. The basic economic resource is knowledge.

- The wealth creating activities will be the allocation to productive uses of neither capital nor labour.

- B. The representative social groups of the knowledge society will neither be the capitalist nor the worker.
- C. They will centre around productivity and innovation, both applications of knowledge to work.
- D. The ruling group will be the knowledge workers, knowledge executives, knowledge professionals and knowledge entrepreneurs.
6. Practically all of them will be employed, either originally, or eventually in knowledge organizations.
- (a) BACD      (b) BDCA  
 (c) ACBD      (d) ACDB
- Q 11. 1. Science has sought to escape from the doctrine of perpetual flux by finding some permanent substratum amid changing phenomena.
- A. Accordingly it was supposed that atoms are indestructible, and that all change in the physical world consists merely in re-arrangement of persistent elements.
- B. It was found that fire, which appears to destroy, only transmutes.
- C. Elements are recombined, but each atom that existed before combustion still exists when the process is completed.
- D. Chemistry seemed to satisfy this desire.
6. The view prevailed until the discovery of radioactivity, when it was found that atom could disintegrate.
- (a) ACBD      (b) CADB  
 (c) DABC      (d) DBCA

**Direction for questions 12 to 14:** Read the passage given below and solve the questions based on it.

In all languages, the most frequently used words evolve at the slowest pace, say researchers in a paper published in *Nature*. In one of the papers, Harvard University researchers researched the evolution of English verb conjugations spanning 1,200 years while the Reading University researchers reviewed cognates (words sounding similar in different languages and carrying the same connotation, such as “water” and the German “*wasser*”) to discover how all Indo-European tongues have evolved from a single, common ancestor.

Pagel and his co-workers examined some 210 words in 87 Indo-European languages, including those for “water,” “two,” “to die” and “where.” The number of cognate classes for each word ranged from one for frequent concepts such as *numbers* to 46 different basic sounds to portray a single entity like a *bird*. The word used to describe the idea of *three* in all Indo-European languages and English is quite similar: from *tres* in Spanish to *drei* in German to the Hindi *teen*. Contrarily, *bird* has several sounds like *pajaro* in Spanish and *oiseau* in French.

Thereafter, they narrowed their attention to their usage frequency in four Indo-European languages—English,

Spanish, Greek and Russian. It was found that they were used at similar rates even if the synonymous words were not cognates. “The high frequency words in Spanish are the same as in those the high frequency English,” say he. “That points to the possibility of our coming up with an Indo-European frequency of use.”

The researchers have found that it would take just 750 years to replace less-used words and up to 10,000 years for new words to come into existence. The Harvard researchers studied the roots of the English language, tracing verb conjugations from 1,200 years ago to its current form. Over time, many past tense forms of verbs have died out in the English language and now only one persists as a rule: adding “-ed” to the verb-ending.

Some research on grammatical texts from Old English catalogued all the irregular verbs. Among them: the still irregular “sing”/“sang,” “go”/“went” as well as the now-regularized “smite” which once was “smote” in Old English but since has become “smited,” and “slink,” which is now “slinked” but 1,200 years ago was “slunk.” The researchers identified 177 irregular verbs in Old English and 145 that were still irregular in Middle English; however today, only 98 of the 177 verbs remain not “regularized.”

After computing their usage frequency, the researchers concluded that the words that evolved most quickly into regular forms were used less than others. In reality, given two verbs, if one was used 100 times less frequently than others, it would evolve 10 times faster than them. They also predict that the past tense of *wed* will regularize from *wed* to *wedded* in near future.

Bela Sen, in her *The Computational Nature of Language Learning and Evolution* says these findings are in line with lexical evolution models. “Languages are constantly changing,” she notes. “In biological evolution, that fact has received great attention, but linguistically, this is happening constantly.”

- Q 12. The principal purpose of the passage is to:
- (a) Talk about the usage frequency of common words in four different Indo-European languages.  
 (b) Make the point that even now, there is uncertainty about the origins of some words in Indo-European languages.  
 (c) Inform the reader of the controversy surrounding a particular issue in linguistic research.  
 (d) Emphasize the idea that in linguistic research, certain issues are still not resolved.
- Q 13. If you were to complete the last paragraph above, which of the following would be the best bet?
- (a) Languages, all the more, are evolving over time just like the animal species do.  
 (b) This constant linguistic evolution has been the reason for all the confusion about the usage of specific words.  
 (c) In a nutshell, the survival of the fittest applies here, too.  
 (d) In the last analysis, nothing succeeds like success in language, too.

## 6.20 ✦✦ Section Tests

- Q 14. Which of the following **CANNOT** be inferred from the passage?
- The past tense verb of *drink* should become *drinked* instead of *drank* earlier than *cost* becomes *costed* in future.
  - Many irregular verbs have been “regularized” with time.
  - English has many features in common with Spanish.
- (a) A and C      (b) A and B  
(c) B only      (d) A only

**Direction for questions 15 to 17:** *Read the following passage carefully and answers the questions given below it.*

A group of seven friends; A, B, C, D, E, F and G work as Economist, Agriculture officer, IT Officer, Terminal Operator, Clerk, Forex Officer and Research Analyst, for Banks L, M, N, P, Q, R and S but not necessarily in the same order. C works for Bank N and is neither a Research Analyst nor a Clerk. E is an IT Officer and works for Bank R, A works as Forex Officer and does not work for Bank L or Q. One who is an Agriculture Officer works for Bank M. One who works for Bank L works as a Terminal Operator. F works for Bank Q. G works for Bank P as a Research Analyst. D is not an Agriculture Officer.

- Q 15. Who amongst the following works as an Agriculture Officer?  
(a) C      (b) B  
(c) F      (d) D
- Q 16. What is the profession of C?  
(a) Terminal Operator  
(b) Agriculture Officer  
(c) Economist  
(d) Cannot be determined
- Q 17. For which bank does B works?  
(a) M      (b) S  
(c) L      (d) Either M or S

**Direction for questions 18 to 20:** *Read the statements given below and solve the questions based on it.*

- Mark A: If the question can be answered by one of the statements alone and not by the other.
- Mark B: If the question can be answered by using either statement alone.
- Mark C: If the question can be answered by using both the statements together, but cannot be using either statement alone.
- Mark D: If the question cannot be answered even by using both the statements together.

- Q 18. A six storey building (consisting of an unoccupied ground floor and five floors on top of the ground floor numbered 1, 2, 3, 4 and 5) houses different people viz, A, B, C, D and E. Who lives on the third floor?
- C lives on an even numbered floor. A lives immediately above D. B lives immediately above A, E does not live on the topmost floor.

- D lives on an odd numbered floor, A and B are live on floors numbers which are consecutive. Similarly, C and E live on floors numbers which are consecutive. C does not live on an odd numbered floor.

- Q 19. What is the ratio of the number of freshers to the number of seniors in a college?

- The ratio of males and females in the college is 2 : 3.
- There are 1125 female freshers in the college.

- Q 20. How is ‘walk’ written in a code language?

- ‘morning walk is good’ is written as ‘na pa ta sa’ in that code language.
- ‘wish you good morning’ is written as ‘la na sa da’ in that code language.

**Direction for questions 21 to 23:** *Read the passage below and solve the questions based on it.*

The education sector in India is in ferment, hit by a storm long waiting to happen. The butterfly that flapped its wings was the much-reiterated statement in a much publicized report that hardly a fourth of graduating engineers, and an even smaller percentage of other graduates, was of employable quality for IT-BPO jobs. This triggered a cyclone when similar views were echoed by other sectors which led to widespread debate. Increased industry academia interaction, “finishing schools”, and other efforts were initiated as immediate measures to bridge skill deficits. These, however, did not work as some felt that these are but band-aid solutions: instead, radical systemic reform is necessary.

Yet, there will be serious challenges to overdue reforms in the education system. In India-as in many countries education is treated as a holy cow: sadly, the administrative system that oversees it has also been deceived. Today, unfortunately, there is no protest against selling drinking water or paying to be cured of illness, or for having to buy food when one is poor and starving; nor is there an outcry that in all these cases there are commercial companies operating on a profit making basis. Why then, is there an instinctively adverse reaction to the formal entry of ‘for-profit’ in statutes in the realm of education? Is potable water, health or food, less basic a need, less important a right, than higher education?

While there are strong arguments for free or subsidized higher education, we are not written on a blank page. Some individuals and businessmen had entered this sector long back and found devious ways of making money, though the law stipulates that educational institutes must be ‘not-for-profit’ trusts or societies. Yet, there is opposition to the entry of ‘for-profit’ corporate, which would be more transparent and accountable. As a result, desperately needed investment in promoting the wider reach of quality education has been stagnated at a time when financial figures indicate that the allocation of funds for the purpose is but a fourth of the need.

Well-run corporate organizations, within an appropriate regulatory frame work, would be far better than the so called

trusts which barring some noteworthy exceptions are a blot on education. However, it is not necessarily a question of choosing one over the other: different organizational forms can coexist, as they do in the health sector. A regulatory framework which creates competition, in tandem with a rating system, would automatically ensure the quality and relevance of education. As in sectors like telecom, and packaged goods, organizations will quickly expand into the hinterland to tap the large unmet demand. Easy Loan/scholarship arrangements would ensure affordability and access.

The only real structural reform in higher education was the creation of the Institutes for Technology and Management. They were also given autonomy and freedom beyond that of the universities. However, in the last few years, determined efforts have been underway to curb their autonomy. These institutes, however, need freedom to decide on recruitment, salaries and admissions, so as to compete globally.

However, such institutes will be few. There we need a regulatory frame work that will enable and encourage States and the Center, genuine philanthropists and also corporates to set up quality educational institutions. The regulatory system needs only to ensure transparency, accountability, competition and widely-available independent assessments or ratings. It is time for radical thinking, bold experimentation and new structures; it is time for the government to bite the bullet.

**Q 21.** Which of the following suggestion have been made by the author to improve the state of education in India?

- A. Allowing the corporate organizations to enter the education sector.
  - B. Easy availability of loans and scholarships for making education more affordable.
  - C. A rating system for all the organizations to ensure quality.
- (a) Only A                   (b) Only A and B  
 (c) Only A and C           (d) All A, B, and C

**Q 21.** According to the author, what ‘triggered a cyclone’ which saw similar views on the state of education being echoed across other sectors as well?

- (a) The campaign for allowing corporates in the education sector on a ‘for-profit’ basis.
- (b) The support for the increase in the industry-academia interaction.
- (c) The report mentioning that only a small percentage of graduates were employable in software industry.
- (d) The report supporting the idea of making the education completely ‘for-profit’ in order to improve upon the standards.

**Q 23.** Which suggestion does the author make in order to make the institutes of higher learning for Technology and Management capable of competing globally?

- (a) To limit their autonomy to acceptable limit and give partial controls to the government.
- (b) To allow corporate organizations to take them over in order to provide more funds.

- (c) To increase the allocation of funds to such institutes.
- (d) To provide freedom to decide on recruitment, salaries and admissions.

**Direction for questions 24 to 27:** *Sentences given in each question, when properly sequenced, form a coherent paragraph. Each sentence is labelled with a letter. Choose the most logical order of sentence from among the four given choices to construct a coherent paragraph.*

- Q 24.** A. With that, I swallowed the shampoo, and obtained most realistic results almost on the spot.  
 B. The man shuffled away into the back regions to make up a prescription, and after a moment I got through on the shop-telephone to the Consulate, intimating my location.  
 C. Then, while the pharmacist was wrapping up a six-ounce bottle of the mixture, I groaned and inquired whether he could give me something for acute gastric cramp.  
 D. I intended to stage a sharp gastric attack, and entering an old-fashioned pharmacy, I asked for a popular shampoo mixture, consisting of olive oil and flaked soap.
- (a) DCBA                   (b) DACB  
 (c) BDAC                   (d) BCDA

- Q 25.** A. Since then, intelligence tests have been mostly used to separate dull children in school from average or bright children, so that special education can be provided to the dull.  
 B. In other words, intelligence tests give us a norm for each age.  
 C. Intelligence is expressed as Intelligence quotient, and tests are developed to indicate what an average child of a certain age can do—what a 5-year-old can answer, but a 4 year-old cannot, for instance.  
 D. Binet developed the first set of such tests in the early 1900s to find out which children in school needed special attention.  
 E. Intelligence can be measured by tests.
- (a) CDABE                   (b) DECAB  
 (c) EDACB                   (d) CBADE

**Direction for questions 26 to 27:** *The following sentences each contain ONE blank, indicating that something has been left out of the sentence. Each answer choice contains one word or a set of words. Select the word or set of words, that, when inserted in the blank(s), best fits the context of the sentence.*

- Q 26.** Because Ranjan was generally \_\_\_\_\_ on the football field, he was genuinely touched by the amount of praise he received for his game-winning touchdown.
- (a) indelible               (b) methodical  
 (c) pious                   (d) unheralded

## 6.22 ◇◇ Section Tests

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- Q 27. Although the professor was quite prominent in her field, she wore an air of \_\_\_\_\_ while lecturing her students.
- (a) unanimity      (b) sanction  
(c) modesty      (d) parsimony

**Direction for questions 28 to 30:** *Each question consists of sentences each of which contains one or two idioms. Four possible meanings labeled options (1) through (4) are provided below each sentence. Choose the one which best expresses the meaning of the idiom.*

- Q 28. I would like to see Hari do his own work for a change instead of always back-seat driving.
- (a) driving a car from the back  
(b) being nagged of work being done by others

- (c) offering advice  
(d) annoying

- Q 29. He proved to be quite a wet blanket at the party for he spoke to no one and morosely sat by himself.

- (a) he was crying  
(b) not too involved and discouraged the rest from having fun  
(c) he wet the blanket  
(d) he had covered himself with a wet blanket

- Q 30. Anuj had a chequered career since I first knew him as a clerk in the local bank.

- (a) had a variety of jobs and experiences  
(b) a career which helped him make lots of money  
(c) a career where he signed a lot of cheques  
(d) did odd jobs

# ANSWERS



## SECTION TEST 3

Q. No.	Answer						
1	(b)	2	(a)	3	(c)	4	(d)
5	(c)	6	(c)	7	(d)	8	(a)
9	(b)	10	(c)	11	(d)	12	(d)
13	(a)	14	(a)	15	(b)	16	(c)
17	(a)	18	(a)	19	(d)	20	(d)
21	(d)	22	(c)	23	(d)	24	(a)
25	(c)	26	(d)	27	(c)	28	(b)
29	(b)	30	(a)				

## HINTS AND EXPLANATIONS

### SECTION TEST 3



#### Solution to Q1 to 4:

Using (1), we can say that answer to any two questions is option A, answer to any two questions is option B, answer to any two questions is option C, answer to any two questions is option D.

Using (2) we can say that Gaurav got 6 correct and 2 incorrect. Further it can also be seen that Gaurav has marked 1 A's, 2 B's, 1 C's and 4 D's. Using (1), we can say that out of 4 D's marked by Gaurav, two D's are incorrect and instead, it should have been one A and one C actually.

A table with the possible wrong answers can be seen below:

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Wrong Answer
Aman	A	B	B	C	D	C	C	A	1 C
Gaurav	A	C	B	D	D	B	D	D	2 D's
Chandra	B	B	B	D	D	C	C	D	1 B, 1 D
Pooja	C	B	B	C	C	B	D	C	2 C, 1 B
Mudit	A	C	D	B	D	C	C	D	1 C, 1 D

Using this, we can say that all the answers marked either a or b or c by Gaurav are correct:

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Wrong Answer
Gaurav	A	C	B	D	D	B	D	D	2 D's
	Correct	Correct	Correct	Not sure	Not sure	Correct	Not sure	Not sure	

So we have got the right answers of Q1, Q2, Q3 and Q6.

Using (4):

Had Gaurav marked one more answer wrongly  $\Rightarrow$  Gaurav's actual = 6 correct, 2 incorrect. In this new case, correct questions = 5, incorrect questions = 3.

Had Mudit marked one more answer correctly she would have interchanged her score with Gaurav  $\Rightarrow$  Mudit attempted 5 questions right and 3 questions wrong.

## 6.24 ✦✦ Section Tests

	<b><i>Q1</i></b>	<b><i>Q2</i></b>	<b><i>Q3</i></b>	<b><i>Q4</i></b>	<b><i>Q5</i></b>	<b><i>Q6</i></b>	<b><i>Q7</i></b>	<b><i>Q8</i></b>	<b><i>Wrong Answer</i></b>
Mudit	A	C	D	B	D	C	C	D	1 C, 1 D
	Correct	Correct	Wrong	Not sure	Not sure	Wrong	Not sure	Not sure	

Mudit has got 5 correct and 3 incorrect. In the above table, we get only 2 correct and 2 wrong. Hence, we can conclude that out of the remaining 4 questions, for which we are not sure, 3 are correct and 1 is wrong.

Using (5):

Three of the eight questions were answered correctly by Aman as well as Chandra

	<b><i>Q1</i></b>	<b><i>Q2</i></b>	<b><i>Q3</i></b>	<b><i>Q4</i></b>	<b><i>Q5</i></b>	<b><i>Q6</i></b>	<b><i>Q7</i></b>	<b><i>Q8</i></b>	<b><i>Wrong Answer</i></b>
Aman	A	B	B	C	D	C	C	A	1 C
Chandra	B	B	B	D	D	C	C	D	1 B, 1 D
Right answer	A	C	B		B				

Since both of them have got 3 common questions right, it will be Q3, and it will not be Q1, Q2, Q4, Q6, Q8. Hence, common correct questions = Q3, Q5, Q7.

So the answer grid, as of now, looks like:

	<b><i>Q1</i></b>	<b><i>Q2</i></b>	<b><i>Q3</i></b>	<b><i>Q4</i></b>	<b><i>Q5</i></b>	<b><i>Q6</i></b>	<b><i>Q7</i></b>	<b><i>Q8</i></b>
Correct Answer	A	C	B		D	B	C	

Till now, list of answers that we have got = 1 A, 2 C, 2 B, 1 D. So one of Q4 and Q8 will have answer as option A and other one as D.

Once again we recreate the situation for Gaurav:

	<b><i>Q1</i></b>	<b><i>Q2</i></b>	<b><i>Q3</i></b>	<b><i>Q4</i></b>	<b><i>Q5</i></b>	<b><i>Q6</i></b>	<b><i>Q7</i></b>	<b><i>Q8</i></b>	<b><i>Wrong Answer</i></b>
Gaurav	A	C	B	D	D	B	D	D	2 D's
	Correct	Correct	Correct	Not sure	Correct	Correct	Wrong	Not sure	

Gaurav got 2 D's wrong. One wrong D has already occurred in Q7.

Let us now recreate the final table:

Pooja has got zero mark  $\Rightarrow$  2 correct and 6 incorrect  $\Rightarrow$  Q3 and Q6 are correct  $\Rightarrow$  all the other 6 answers are incorrect.

	<b><i>Q1</i></b>	<b><i>Q2</i></b>	<b><i>Q3</i></b>	<b><i>Q4</i></b>	<b><i>Q5</i></b>	<b><i>Q6</i></b>	<b><i>Q7</i></b>	<b><i>Q8</i></b>	<b><i>Wrong Answer</i></b>
Pooja	C	B	B	C	C	B	D	C	2 C, 1 B
	Wrong	Wrong	Correct	Wrong	Wrong	Correct	Wrong	Wrong	

We have so far got:

It should look like:

<b><i>Q1</i></b>	<b><i>Q2</i></b>	<b><i>Q3</i></b>	<b><i>Q4</i></b>	<b><i>Q5</i></b>	<b><i>Q6</i></b>	<b><i>Q7</i></b>	<b><i>Q8</i></b>
A	C	B		D	B	C	D/A

	<b><i>Q1</i></b>	<b><i>Q2</i></b>	<b><i>Q3</i></b>	<b><i>Q4</i></b>	<b><i>Q5</i></b>	<b><i>Q6</i></b>	<b><i>Q7</i></b>	<b><i>Q8</i></b>	<b><i>Wrong Answer</i></b>
Aman	A	B	B	C	D	C	C	A	1 C
	Correct	Wrong	Correct	Wrong	Correct	Wrong	Correct	Not sure	

Aman and Chandra got the same marks. We have concrete information for 7 questions of Aman – 4 correct and 3 wrong (no info for Q8). Now net score for Aman may

be either 4 correct and 4 wrong (in that case Aman's answer to Q8 is wrong  $\Rightarrow$  answer to Q8 is option D  $\Rightarrow$  answer to Q4 is option A) or 5 correct and 3 wrong.

	<b><i>Q1</i></b>	<b><i>Q2</i></b>	<b><i>Q3</i></b>	<b><i>Q4</i></b>	<b><i>Q5</i></b>	<b><i>Q6</i></b>	<b><i>Q7</i></b>	<b><i>Q8</i></b>	<b><i>Wrong Answer</i></b>
Chandra	B	B	B	D	D	C	C	D	1 B, 1 D
	Wrong	Wrong	Correct		Correct	Wrong	Correct		

Looking at Chandra score, one of the option D's have to be wrong (since she has marked 3 option D as the answers), so she cannot get both Q4 and Q8 correct. So her best score = 4 correct and 4 wrong (she cannot have both D's wrong as in that case her score will not match with Aman).

So answer to Q8 = Option D  $\Rightarrow$  Answer to Q4 = option A. So the final answer grid is:

<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q5</b>	<b>Q6</b>	<b>Q7</b>	<b>Q8</b>
A	C	B	A	D	B	C	D

Now all the questions can be answered.

1. (b) Aman got 4 questions right. Hence, option (b) is the answer.

2. (a) Mudit got 5 correct – 3 wrong = 4 marks

Chandra got 4 correct – 4 wrong = 2.66 marks

Different = 1.33 marks  $\Rightarrow$  hence, option (a) is the answer.

3. (c) Except Pooja, all of them got their scores above it.  
Hence, option (c) is the answer.

4. (d) It is possible to calculate the scores for all of them.

Hence, option (d) is the answer.

12. (d) Option (a) represents one of the ideas explored by Pagel (paragraph 3) in the course of his research to prove his point. So it is part of the whole story, certainly not the whole itself.

There is no controversy at all being discussed here, thereby ruling out option 3. In fact, the entire passage talks of complete agreement on the issue between the two sets of researchers.

Option (b) is not only factually wrong, but also is only a part of the focus of this entire passage.

Thus option (d) happens to be the best one in the sense that it is all-encompassing, beyond any doubt and is very clearly mentioned in the first two paragraphs.

Hence, option (d) is the answer.

13. (a) The last few lines emphasize the idea of evolution of words in language like that of specie in biological evolution. A suitable closing line should be one that either negates or corroborates the idea most logically.

Option (b) does not make any logical sense as there is no confusion at all either hinted at or suggested here.

Option (c) is a misleading one as in the passage, the author does not even hint at the fact there is some competition among words.

Hence, option (a), which carries forward the idea appropriately (note the word *constantly* in the last line, which supports *all the more* in the option), is the most suitable answer.

Hence, option (a) is the answer.

14. (a) Since *eat* is a higher-frequency word in contrast with *cost* in general, it should evolve into a regular form much more slowly than *cost*, in terms of the passage. So A is wrong. B is correct because the last line of paragraph 5 clearly mentions this idea. The idea contained in C is not supported by the contents of the passage. The only thing mentioned in paragraph 3 is the fact both Spanish and English have the same high-frequency words. Hence, C is an incorrect choice here.

Hence, option (a) is the answer.

### Solution to Q15 to 17:

Following table can be made:

<b>Person</b>	<b>Bank</b>	<b>Profession</b>
C	N	ECONOMIST
E	R	IT OFFICER
A	S	FOREX OFFICER
D	L	TERMINAL OPERATOR
F	Q	CLERK
G	P	RESEARCH ANALYST
B	M	AGRICULTURE OFFICER

15. (b) From the table, B works as an agriculture officer.  
Hence, option (b) is the answer.

16. (c) From the table, the profession of C is economist.  
Hence, option (c) is the answer.

17. (a) From the table, B works for M bank. Hence, option (a) is the answer.

18. (a) From Statement I:

Fifth Floor	B
Fourth Floor	A
Third Floor	D
Second Floor	C
First Floor	E
Ground Floor	Vacant

## 6.26 ◇◇ Section Tests

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From Statement II:

More than one arrangement is possible.

Floor Number	Arrangement 1	Arrangement 2
5	D	D
4	C	B
3	E	A
2	B	C
1	A	E
Ground	Vacant	Vacant

19. (d) Both the statements together are not sufficient to answer the question. Hence, option (d) is the answer.

20. (d) From both the Statements:

Morning walk is good  $\Rightarrow$  na pa ta sa  
Wish you good morning  $\Rightarrow$  la na sad a

The code for ‘walk’ is either ‘pa’ or ‘ta’. Hence, option (d) is the answer.

26. (d) This sentence’s clue word is “because”. Unheralded means unappreciated or unnoticed. Clearly Ranjan was not the star of this team and was not used to receiving accolades. Hence, correct answer is (d).
27. (c) Although is the clue word. Choice A may have confused you if you mistook unanimity with anonymity. This is an example of 2 words that are similar in appearance and enunciation, but vastly different in meaning. This is also another reason you should examine all answer choices in the examination. The answer is choice (c).
28. (b) “back-seat driver” is A passenger who constantly advises, corrects, or nags about the work done by others.
29. (b) A person who is a “wet blanket” is someone who is not comfortable to be around
30. (a) “Chequered career” is “marked by fluctuations of fortune, acquiring different experiences”.