CRITICAL REASONING

A SUCCESSFUL MANAGER'S RESPONSIBILITY

Management at a higher level is not that easy. It involves dealing with complex information through various means, viz, reading, discussion, etc. Managers have to read, understand and analyze information, and after analysis, draw proper conclusions or make plans, which then are implemented. Sometimes these have to be done against tight deadlines. The success or failure of these means that the company will make profits or run into losses, respectively.

Good managers are, thus, responsible for the things they do, and this includes thinking critically, logically, clearly and carefully about things that matter. To manage well they should base their reasoning on how things are, rather than how they wish they were. Good managers are open to the possibility that they could be mistaken. They do not allow blind emotion to cloud their thought. Also, this doesn't mean that they should constantly be questioning everything.

All these depend on their possessing, among other things, **critical reasoning.**

THIS IS EXACTLY WHY ALMOST ALL THE QUESTIONS (INCLUDING RC) IN VA SECTION OF THE CAT, TEST A MANAGEMENT ASPIRANT'S CRITICAL REASONING SKILLS, IN ADDITION TO VOCABULARY, GRAMMAR AND ENGLISH LANGUAGE, IN GENERAL.

THEREFORE, ONE SHOULD BE THOROUGH IN THIS AREA.

A few most commonly recurring question types that test one's CR skills:

1. Most of the Reading Comprehension questions need CR skills, especially, the one's that involve inference, conclusion, author's opinion questions.
2. Paragraph Formation Questions
3. Paragraph Completion Questions
4. Identify the odd sentence among the four given
5. Inference questions
6. Conclusion questions
7. Strengthen/Weaken the argument questions
8. Fill in the blanks questions

IMPORTANT NOTE: TO BE ABLE TO DEAL WITH THESE SUCCESSFULLY, ONE SHOULD FIRST UNDERSTAND WHAT CR IS AND THEN PRACTISE THE MOST COMMON ARGUMENT-BASED CR TASKS GIVEN IN THE PRACTICE EXERCISES.

SO, WHAT IS CRITICAL REASONING?

Critical Reasoning is the high level ability that helps one to differentiate between Valid and Invalid arguments/reasoning. It is a skill that enables an effective manager to make valid arguments, cases, suggestions etc., and to check out whether others' arguments, etc., are valid or not.

Relevance of Critical Reasoning to Reading Comprehension

Critical Reasoning is tested in many B-school entrance exams – mostly as a part of the Verbal Ability/Reading Comprehension section, and sometimes as a part of the Logical Reasoning section.

In the recent years, CAT has 'upped the ante' on testing students on Critical Reasoning skills within the Reading Comprehension part of the test. Below are listed some of the most often tested question types along with different ways of testing the same (*Pay close attention to the **bold** parts below to better understand the nuances of each testing skill and differences between any two*):

I. Main Idea questions – *these questions require an overall understanding of why the context was written in the first place and what it intends to achieve in several hundreds of words*

(1) What is the **main idea** of the author?
(2) What is the **primary purpose** of the passage?
(3) The author is **primarily concerned** with which of the following?

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II. Supporting Idea questions – *these questions require understanding of specific contexts of the passage*

(1) All of the following (choices) **are mentioned** in the passage **EXCEPT**:
(2) According to the passage, which of the following **describes** the ...
(3) The passage **mentions** which of the following as a consequence of ...
(4) According to the passage, compared with A, B is a better proposition because…
(5) Which of the following **is mentioned** as an/the advantage/disadvantage of ...

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III. Inference questions – *these questions require students to derive additional/unstated/logical understanding of the given context*

(1) It **can be inferred** from the passage that which of the following is true of …
(2) The author **suggests** that which of the following is the advantage/disadvantage of …

(3) The passage **implies** that which of the following was true of …
(4) The passage **suggests** that, if the recommendations mentioned in paragraph 2 were implemented, which of the following would be true?

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IV. **Logical Structure questions –** *these questions require students to be able to logically relate external (not mentioned in the passage) evidence to the passage or one part of the passage to the passage as a whole*
(1) The author's conclusion would be most seriously **weakened/undermined** if which of the following is true?
(2) **If** the given evidence was not found, **then** the author would have concluded that
(3) Which of the following **describes the relation of the first paragraph to the passage as a whole**?
(4) The author points to **"<*some part from the passage*>" in order to point out** that
(5) Which of the following would **add the LEAST DEPTH** to the author's position?
(6) The word "<***some word from the passage***>" **most closely corresponds to** which of the following phrases?

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V. **Application questions** – *these questions require students to analyse relevance of external (not mentioned in the passage) situations to the passage*
(1) The author would most likely **make which of the following recommendations**?
(2) The author of the passage **would support** which of the following assertions?
(3) The author would most likely **agree with** which of the following?

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VI. **Evaluation questions** – *these questions require students to evaluate why some part of the passage was given and what purpose it serves*
(1) Which of the following best **describes the function of the last sentence**?

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NOTE: *While the above is a broad guideline that helps you fine-tune your approach to answering certain question types, note that the exact classification can be made only based on how the answer options are written.*

As the name suggests, Critical Reasoning questions test students' ability to think 'critically' on a given context/situation – the context/situation may be a very short passage (as short as one sentence) or a long passage (that runs into several hundred words). Irrespective of the size of the context, the approach to understanding and analysing the context remains the same.

We will explore the logical approach to understanding and analysing such context/s with a simple example:

Cricketer X has performed disastrously in the last World Cup. Since then, in almost all the matches, his scores have been single digit runs. This shows that he has consistently failed to perform. Therefore, he should be removed from the team.

Now, let's break this example down by identifying certain key words (in **bold**):

*Cricketer X has performed **disastrously** in the last World Cup. Since then, in almost all the matches, his scores have been single digit runs. This **shows that** he has **consistently** failed to perform. **Therefore**, he **should** be removed from the team.*

Pay close attention to the parts in **bold**:

disastrously, consistently – these words are modifiers (adverbs/adjectives) used to bring in an additional emphasis to a particular context. Usage of modifiers indicates that the author is 'defining' something to suit his purpose. This clearly suggests that that part of the context (usually) CANNOT be a fact; HAS TO BE (or, very likely) author's opinion on something.

shows that, therefore – these words indicate a CAUSAL RELATIONSHIP (cause-effect) and/or an end to a certain thought process.

should – this modal auxiliary clearly indicates the AUTHOR'S OPINION!

So, in the above example,

(1) **what is the author's PURPOSE of writing the context?**
- to imply that X should be removed from the team.

(2) **what is the EVIDENCE the author used?**
- that his scores have been single digit runs.

Remember!
(A) It is important to understand the **PURPOSE (MAIN Idea) of the context –** *Why was something written?*

(B) Once the PURPOSE is identified, rest of the context merely becomes the **SUBORDINATE Idea** –
What did the author use to support his claim? How was the context written?

(C) Authors may use different styles of writing:
(a) State the PURPOSE and then go on supporting it; OR
(b) Build their case and then declare (arrive at) the PURPOSE

(D) Authors may use different strategies to organise their points:
(a) ***description*** – authors tend to convey information in an objective manner
(b) ***persuasion*** – authors tend to support a position against another
(c) ***evaluation*** – authors tend to describe a situation and analyze it giving the pluses and minuses of the situation

IMPORTANT:
This approach of understanding any context helps students answer questions not only in Critical Reasoning or Reading Comprehension, but also in 'Paragraph Summary – Identify the author's position', which has been tested very often in the CAT in the recent years.

The first few exercises (Critical Reasoning Practice Exercises) in this practice Study Material book are focused towards fine-tuning your thought process with shorter contexts/passages.

Once you develop a comfort with
➔ understanding the structure of the contexts,
➔ filtering the MAIN IDEA from the SUBORDINATE IDEAS,
➔ understanding your approach to answering different question types,
➔ eliminating incorrect answer options

you may then move to the Reading Comprehension Practice Exercises to apply the thought process to larger contexts.

BASIC CONCEPTS OF CRITICAL REASONING:

1. ARGUMENT:

An argument is a passage through which the author tries to convince the reader about an idea/opinion/claim/suggestion by providing supporting reasons.

2. CONCLUSION:

The main idea that the author is trying to convince the reader about by providing supporting reasons is called the conclusion of the argument/author.

3. PREMISE/S:

The supporting reason/s that the author provides in the argument to support his conclusion is/are called premise/s.

Example:

Cricketer X has performed disastrously in the last World Cup. Since then, in almost all the matches, his scores have been single digit runs. This shows that he has consistently failed to perform. Therefore, he should be removed from the team.

The above passage is an argument as we can clearly see that the author finally wants us to believe that the cricketer X should be removed from the team and he supports this by providing relevant reasons.
Hence, the conclusion of the argument is: Cricketer X should be removed.
The premises are:
(a) Cricketer X has performed disastrously in the World Cup.
(b) His scores have been single digit runs.
(c) He has failed to perform consistently.

IMPORTANT NOTE: TO BE ABLE TO DEAL WITH ANY CR QUESTION CORRECTLY, ONE SHOULD IDENTIFY THE CONCLUSION AND THE PREMISES CORRECLTY, WHICH IS NOT AS EASY AS IT MAY SEEM.

For example, a student may now assume that the first sentence or the first few sentences of the paragraph are the premise/s, and/or the last sentence of the paragraph is the conclusion, as is the case in the example given above. Well, it need not be so. Remember, the paragraph is just the physical representation of the argument WHICH IS A THOUGHT PROCESS. The argument above can also be presented as follows:

I think Cricketer X should be removed from the team as he has consistently failed to perform. Take for instance his World Cup performance which was disastrous or the matches later, in which he scored single digit RUNS.

Well, the conclusion of the argument is mentioned as the first sentence of the paragraph. And, the premises follow. Now, look at this:

Well, Cricketer X has consistently failed to perform and so I think he should be removed from the team. Take his World Cup performance for instance-- it was disastrous. Or the matches he played after that--he scored single digit runs.

The conclusion in the above argument follows the first premise. The other premises follow the conclusion. Hence, one should be careful in identifying the conclusions and premises.

HOW TO IDENTIFY THE CONCLUSION:

As we have seen above, it is not always so easy to identify the conclusion of the argument. If you are lucky, you may have conclusion indicators—words that indicate that what follows is a conclusion. Consider this:
Cricketer X has consistently failed to perform, therefore, he should be removed form the team.
In the above argument the author said, Therefore, he should be removed from the team. Here, 'therefore' clearely indicates that "he should be removed" is the conclusion of the argument. Other conclusion indicators are—hence, thus, clearly, in conclusion, finally, that is why, for this reason, it follows that, then, etc.
However, you may not always be so lucky. Then what will you do? Don't worry, you simply ask the author 'What' he is trying to tell you finally. The answer to that question is the conclusion.

The types of questions are

Which one of the following is a conclusion that can be drawn on the basis of the above paragraph?
Which one of the following is implied by the argument above?
The author seems to suggest that ……
If all the statements above are true, then which one of the following must also be true?
The author of the above passage would most likely agree with which one of the following?

Example:

Rising GDP is by no means enough to create a truly prosperous nation. Increasing inequalities in income can lead to social tensions erupting in crime and violence. Only when the vast majority of people share the benefits of growth will peace and prosperity co-exist. Equitable distribution is important too.

Which of the following is the conclusion of the above argument?
(A) GDP growth is impossible without the efforts of the vast majority.
(B) Benefits of economic growth are unfairly divided between the haves and the have-nots thus giving rise to social tension.
(C) GDP growth and equitable distribution of benefits are not the correct measures of prosperity for many nations.
(D) GDP growth and equitable distribution of benefits are required for a country to be truly prosperous.

HOW TO IDENTIFY THE PREMISES.

Again, if you are lucky, you may have premise indicators—words that indicate that what follows is a premise. Look at the following:
Because Cricketer X has consistently failed to perform, he should be removed form the team.
In the example above, the word 'because' clearly indicates that "Cricketer X has consistently failed to perform" is a premise. Hence, words like because, as, since, due to, on the basis of, based on the fact that, etc. are premise indicators.
Again, if you are not so lucky, ask the author(after first identifying the conclusion) on what basis he is saying the conclusion, or how he can say that, or why he says that. The answers to these questions are premises.

4. ASSUMPTION:

We already know what a premise is — a reason the author presents in the argument in support of his conclusion. Well, what if the author takes the support of a reason but doesn't mention it? Is that possible? Let's see…
Consider the following argument:
Ram is a member of the ABC Club, hence he must be a student of Sainik School Satara.

In the above argument, the conclusion is clearly—Ram must be a student of Sainik School Satara. And the premise is—Ram is a member of ABC Club.

However, if we carefully observe, we notice that the premise provided by the author by itself is not sufficient to arrive at the conclusion. Something is missing. There is an idea that the author took support of but did not mention in the argument.
Look at the following…

Ram is a member of the ABC Club.

All the members of ABC Club are students of Sainik School Satara.
Hence, he must be a student of Sainik School Satara.

Now the argument is complete. We clearly see that the idea that the author took support of but did not mention is **All the members of ABC Club are students of Sainik School Satara.**

This idea that an author takes support of along with the stated premises but doesn't mention is called an Assumption. The author is said to have assumed it.

This is very critical to the argument but is absent in the argument. Therefore, the identification of an assumption is very difficult. To identify an assumption in the argument, simply look at the conclusion and the premises and identify those elements in them that are uncommon. Usually the link between these uncommon elements is the assumption. However, it requires good practice as assumptions can be simple or difficult.

IMPORTANT NOTE: To understand the argument correctly, you may use the **paraphrasing method**. In this method, you simply simplify the argument—use your own simple words to express the argument. Where the author uses difficult words, you use simple words.

Let's take an example:

Example:

The theory of MAD – Mutually Assured Destruction — ensures that two nuclear powered enemies would not go to war. The fact that a nuclear war, if it occurs, would destroy both countries, prevents leaders from declaring war and maintaining a hostile peace, as in the cold war.

Which of the following is an assumption inherent in the above argument?

(A) More and more countries are developing nuclear weapons.
(B) Leaders of nuclear powers are rational and wish to avoid destruction.
(C) The presence of a nuclear arsenal is actually a factor working for prevention of war.
(D) The people of most countries are against the use of nuclear weapons.

Now, this argument may look complicated at first. Well, the argument is essentially defining a theory—MAD. It is primarily telling us that 'two nuclear powered countries would not fight a war'...why? "Because, if they fight, both will be destroyed."

So, a simplified argument would look like...

"Two nuclear countries would not fight a war because if they fight, they both will be destroyed."

5. LINE OF REASONING:

The methodical process of reasoning employed by the author in the argument is called line of reasoning. Simply put, the journey of the author's argument from the premises to the conclusion, the way he goes about it, is the line of reasoning.

6. VALID ARGUMENT:

An argument that is acceptable, rational, sensible or logical is said to be a valid argument.

Example:

Cricketer X has performed disastrously in the last World Cup. Since then, in almost all the matches, his scores have been single digits. This shows that he has consistently failed to perform. Therefore, he should be removed from the team.

The above is a valid argument as it is acceptable to say that. If the given reasons are indeed true then the player must be removed from the team.

7. INVALID ARGUMENT:

Now look at the following argument:
Cricketer X has neglected his family due to his devotion to cricket. His children too miss him a lot when he goes on tours. This is not fair, so he should be removed from the team

Well, do you accept such an argument? No! Because, the reasons cited have no bearing on the cricketer's on field activities or cricketing career. They are irrelevant. This is an invalid argument.

8. FLAW:

We have just now seen that an argument can be invalid. Now, what makes an argument invalid? A characteristic that is illogical/nonsensical/stupid. For example, the irrelevance of the supporting reasons in the above argument makes the argument invalid. This illogicality, nonsensicality or absurdity in an argument that makes it invalid is called a Flaw or fallacy. A study of common flaws helps us in developing our reasoning skills.

Example:

Surveys on the eating habits of South Indians have thrown up quite a few surprises. While the number of dosas sold have increased by 11%, the number of pizzas sold have increased by a whopping 165%. The above clearly indicates a strong shift in eating preferences from dosas to pizzas.

Which of the following illustrates the absurdity of the argument above?
(A) A majority of the pizzas sold in South India are vegetarian.
(B) The growth in percentage of pizzas eaten was over a very small base (of last year).
(C) Pizza growth of last year, over the year before last was just 3%.
(D) Dosas are still eaten mainly for breakfast whereas pizzas are eaten throughout the day.

9. INFERENCE:

The dictionary defines inference as the act or process of deriving logical conclusions from an argument. This means, based on the given information in the argument, if we logically draw an idea(which is not mentioned in the argument), that idea is called an inference. For example, read the following:

I don't think the recent circular to students will stop them from coming late to school. A penalty of five rupees for a delay of one hour is not much.

Now, based on this argument, we 'understand' that 'the circular asked the students not to come late and if they do so, they shall be asked to pay a penalty of five rupees per hour. This idea is not explicitly stated in the argument he derived it logically.

THE MOST COMMON ARGUMENT-BASED CR TASKS...

1. IDENTIFY THE CONCLUSION
2. IDENTIFY THE ASSUMPTION
3. IDENTIFY THE INFERENCE/CONCLUSION
4. IDENTIFY THE FLAW
5. STRENGTHEN THE ARGUMENT
6. WEAKEN THE ARGUMENT
7. PARALLEL REASONING
8. RESOLVE THE PARADOX

METHODS OF DEALING WITH THE COMMON CR QUESTION TYPES:

NOTE: Based on the above inputs, one should be able to deal with **conclusion, assumption, inference** and **flaw** based CR tasks.

For the others, the following should help.

STRENGTHEN/WEAKEN THE CONCLUSION / ARGUMENT

HOW TO STRENGTHEN THE ARGUMENT:

This is the opposite of weaken the argument question. In this we have to identify that idea which removes a doubt, if any, about the argument, and makes it more convincing. Again, the only doubt that one can have about the argument is the assumption of the author. He assumes something to be true. Whether it is true or not, we don't know. Hence, just as we show that it is false to weaken his argument, we show it to be true to strengthen the argument. For example, in the above argument, if we prove that “All the members of ABC Club are students of Sainik School Satara” or “The ABC Club is a part of Sainik School Satara”, etc. we will strengthen the argument.

HOW TO WEAKEN THE ARGUMENT:

One of the most common types of Logical Reasoning questions, by far, is the weaken-the-argument question. To weaken the argument, we have to identify that option that makes the argument less convincing. Imagine the argument to be a chair with only three legs. Now, the missing leg is the weak point in the argument, which is what you point out to weaken the argument. Now, what do we call the missing leg in CR jargon? The Assumption, of course. Hence, to weaken the argument, we either show the assumption of the argument to be false or identify that fact/idea which shows it to be false.
For example: If an author says...
Ram is a member of the ABC Club, hence he must be a student of Sainik School Satara.
He's assuming that “all the members of ABC Club are students of Sainik School Satara.”
But, what if it is not so? What if “only a few members of ABC Club are students of Sainik School Satara”? What if it is the other way round, i.e. “Sainik School Satara is a part of ABC Club, in which case, there may be other members of the Club who may not be a part of Sainik School Satara”? Well, these ideas weaken the argument/conclusion that “Ram must be a student of Sainik School Satara”.

Example:

For 50 successive weeks, the rate of inflation has been under 5%. This is the longest period of low inflation since the mid seventies. The Finance Minister was quick to claim that the fiscal and monetary policies of his government were solely responsible for bringing inflation under control.

Which of the following, if true, casts a serious doubt on the Finance Minister’s assertion?

(A) Consumers still feel that prices are rising, especially in the cities.
(B) International oil prices, which are a major component of the inflation index, have been very low over the past 50 weeks.
(C) Inflation is a phenomenon caused by a complex interaction of numerous factors, some of them beyond the control of the finance minister.
(D) The consumer price index fluctuates from week to week.

PARALLEL REASONING QUESTION.

In a parallel reasoning question, we are given a base argument, and are asked to identify, from among the given choices, an argument that is parallel to the given argument. So, what is this parallel argument?

Parallel argument: An argument that has the same logical features as the given argument is said to be parallel to that argument. This means, the arguments' lines of reasoning and the logical pattern should be the same.

Example:

I know that it is wrong to cheat on taxes; but everybody does it, so why shouldn’t I?

Which of the following is similar in logical structure to the argument above?

(A) I know that it is wrong to drink and drive, but I am not harming anyone; so it is acceptable.
(B) I know that it is wrong to evade customs, but its for personal use and hence it is not illegal.
(C) I know that its against the rules to steal; but I won’t get caught; hence I will continue stealing.
(D) I know that it is illegal to cheat in the exams but why shouldn’t I when everybody else does that?

HOW TO RESOLVE OR EXPLAIN A PARADOX

A paradox question presents us with two apparently contradictory ideas or events and asks us to explain or resolve the contradiction.

To successfully deal with a paradox, we should first understand it correctly. There is usually a 'crux' about which a paradox revolves, which one has to get hold of. Now, once that is clear, one should proceed to think logically as to how it is possible that such a thing exists and explain its possibility. The correct answer is usually the one that makes sense of the paradox to exist.

Example:

Owing to a near perfect monsoon, farmers across the country have a bumper harvest of potatoes. However, we have seen a sharp rise in the number of potato farmers committing suicide this year.

Which of the following, if true, would explain the rise in suicides among potato farmers?

(A) The export market for potatoes came down because of the excess production of potatoes in all the countries of the world.
(B) Oversupply of potatoes has led to a drastic fall in potato prices.
(C) Potatoes are consumed heavily in the north as compared to the south whereas the production was more in the south.
(D) Last year, the monsoon was bad and potato farmers still committed suicide.

EXERCISE – 1

Directions for questions 1 to 25: Each of the following questions is based on a short argument, a set of statements, or a plan of action. For each question, select the best answer from the given choices.

1. Many countries stockpile nuclear weapons in their armory. These weapons are built to serve more as deterrents to enemy nuclear nations than as potential weapons to be used in case of a war erupting between two nations possessing nuclear weapons. It is clear that no country possessing nuclear weapons would risk using them against an enemy nation having nuclear weapons for fear of retaliation.

Which of the following is an assumption in the conclusion that no nuclear country would use nuclear weapons in a war against its enemy country for fear of reprisal?
(A) In a war between two nuclear nations, third nations possessing nuclear weapons will not interfere.
(B) Nuclear weapons can cause more havoc than traditional weapons.
(C) No nation possesses a nuclear device which, when deployed, can destroy all the nuclear weapons of another country at one stroke.
(D) World opinion is always against the use of nuclear weapons in a war.

2. Clive is a great fan of P.G. Wodehouse, a great writer of humorous novels, and he has read all the novels written by the author. It shows that Clive is a jovial person and does not take things very seriously in his personal life.

Which of the following must be the most important assumption in drawing the above conclusion?
(A) P.G. Wodehouse does not write serious novels.
(B) Literary choices reflect the personal attitude of a person.
(C) Clive has not met with any major adversities in his personal life.
(D) The society in which Clive lives likes his jovial nature.

3. The number of surgeons in the country has registered a two-fold increase in the past three years. However due to the advent of noninvasive medical treatments, the total number of surgeries performed has also come down drastically. This is bound to lead to a significant decline in surgical skills of surgeons.

Which of the following is an assumption in the above argument?
(A) Of late people prefer non-invasive medical treatments to surgeries.
(B) Surgeons by and large are reluctant to use methods other than surgery, for treating the patients.
(C) The general health condition of people has improved so much that diseases or physical disabilities warranting surgical operations have come down in number
(D) Constantly performing surgeries alone can keep the surgical skills of surgeons in tact.

4. Energy consumption involves release of greenhouse gases resulting in global warming. Hence, it is the contention of the under-developed nations that the economically developed countries must make a higher contribution to funds constituted towards taking measures to fight global warming.

Which of the following is an assumption in the above argument?
(A) Developed nations are rich and hence can contribute more liberally to funds required for fighting global warming.
(B) Energy consumption varies directly as the economic status of a nation.
(C) Fighting global warming needs huge funds which can be contributed only by the developed nations.
(D) Global warming is an issue of concern to all – especially the economically developed nations.

5. It has been made mandatory by law for auditoriums where people assemble to be provided with an emergency exit, apart from the usual exit gates, if the capacity of the hall is a hundred or more.

Which of the following must be an assumption by the law makers while enacting the above mandate?
(A) No accidents can occur in auditoriums with capacities less than hundred resulting in human causalities.
(B) In case of an emergency, such as a fire, people become unruly which leads to a stampede and unnecessary causality.
(C) When the number of people assembled in a hall is less than hundred, they can easily communicate with one another and avoid stampedes.
(D) If the number of people assembled in a hall is less than hundred, it should be possible for them to make safe exits through available gates.

6. Tiger skins available on world markets, though partly from illegal killing of tigers are also from legal sources such as from natural death of tigers. Thus it is argued that trading of illegally obtained tiger skins in the international markets can be totally stopped if buyers resolve to purchase only legally obtained tiger skins.

The above argument depends on the assumption that
(A) buyers of tiger skins are able to distinguish between those obtained legally and those obtained illegally.
(B) more tigers die a natural death than those killed illegally.
(C) if trading of tiger skins can be prevented, they can be saved from extinction.
(D) it is easier to obtain skins from tigers when they die naturally than when they are killed.

7. As a part of their sales promotion measures, 'Star Sports', a company which produces and sells tennis rackets and balls, wishes to enter into a contract with a leading tennis star for five years for endorsing their products. The move is not a wise one, as no tennis star has ever played for more than three years in the international circuit.

Which of the following is an assumption on which the above assertion is based?

(A) Tennis players, after their retirement from the games, take up assignments such as coaching etc related to tennis.
(B) When new stars come up in tennis, old stars lose their popularity.
(C) The company would not have been able to reap the full benefit of the endorsements in the first three years.
(D) People stop admiring a sports star after he /she stop playing in international matches.

8. Dr. Michael Clarke, an obesity researcher has put forward the hypothesis that obesity is linked to profession. According to him, the brain consumes more energy than any other organ in the body, and the more it is used, the more energy it consumes. He concludes that people who are in professions like medicine, engineering, teaching and scientific research are less likely to be obese than those in professions like marketing, sales and manufacturing.

Which of the following is an assumption that Dr. Clarke has made?

(A) Physical activity has no role to play in determining a person's weight.
(B) Professions like marketing place negligible demands on the intellect.
(C) Doctors and scientists are in general more intelligent than marketers.
(D) Professions like marketing are less intellectually demanding than are professions like medicine and scientific research.

9. An ivy league management institute prohibits for two years its retired faculty from joining examination preparation institutes that prepare students for the management entrance exam of the institute and other similar institutions. One faculty member commented that the prohibition was unfortunate since it would prevent retired faculty from earning a livelihood for two years.

The comment is based on the assumption that

(A) a faculty member must be paid an allowance to compensate for the restriction imposed post retirement.
(B) faculty members on retirement should be retained as guest faculty and paid per class.
(C) intellectuals retiring from senior positions are incapable of transferring their knowledge to another field.
(D) the institute has no right to impose its will on employees once they retire.

10. A recent study revealed that most successful business tycoons in Indonesia admitted to lying, cheating and bribing officials. The study also showed that most businessmen who could not make it big were by and large honest and did not resort to such practices. The study concludes that in Indonesia, if a person wants to make it big in business, he should be dishonest.

Which of the following is an assumption that has been made in arriving at the conclusion?

(A) Success or failure in business in Indonesia is determined by ethics alone.
(B) An honest person can never be a successful businessman in Indonesia.
(C) When competing against dishonest businessmen, a person can survive only if he himself is dishonest.
(D) Telling the truth never pays in Indonesia, especially when it comes to making it big in business.

11. It is a popular misconception that nuclear fusion power is free of radioactivity; in fact the deuterium-tritium reaction that nuclear scientists are currently exploring, produces both alpha particles and neutrons.

Which of the following can be inferred from the above?

(A) Nuclear fusion does not involve production of alpha particles and neutrons.
(B) Production of alpha particles and neutrons constitutes radioactivity.
(C) Nuclear fusion does not result in radioactivity.
(D) The deuterium-tritium reaction is an example of nuclear fission.

12. The human body responds to a viral infection by producing antibodies. An antibody can either interfere with a virus' ability to bind to a cell, or can prevent it from releasing its nucleic acid. Unfortunately, the common cold, produced most often by rhino viruses, is intractable to antiviral defense. Humans have difficulty resisting colds because rhinoviruses are so diverse, including at least 100 strains.

Which of the following can be inferred from the above passage?

(A) An antibody cannot attack all types of rhino viruses.
(B) Common cold producing rhino viruses can easily be destroyed by antibodies.
(C) Common cold is not amenable to any medical treatment.
(D) Rhinoviruses are capable of destroying antibodies produced by the human body.

13. Simone de Beauvoir's work greatly influenced Betty Friedan's – indeed made it possible. Why then was it Friedan who became the prophet of women's emancipation in the United States? Political conditions, as well as a certain anti-intellectual bias, prepared Americans and the American media to receive Friedan better than Beauvoir.

Which of the following can be inferred from the above?

(A) Beauvoir's work had a distinct anti-woman stance.
(B) Political conditions during Friedan's times were more stable than during Beauvoir's times.
(C) The works of Friedan were more appealing to the common people than those of Beauvoir.
(D) Friedan plagiarized the works of Beauvoir.

14. Margaret: Earth is situated at such a distance from the sun, that it is neither too near to be very hot nor too far to be very cold. Thus if another planet could be present at almost the same distance from the sun, it would definitely sustain human life.

Mary: You seem to assume that climate is the only essential condition for life. But if oxygen and water are not found in such a planet it cannot sustain human life.

Which of the following can by inferred from Mary's reply?

(A) Presence of oxygen and water is more important than climatic conditions to sustain human life.

(B) There is no possibility of such a planet.
(C) Human life could exist even in planets which are not at a similar distance from the sun as the earth is; provided they have oxygen and water.
(D) Oxygen and water are factors in addition to proper climate to support human life in a planet.

15. The coolant Freon used in refrigerators was found to damage the ozone layer of the earth. Hence an urgent need was felt to substitute Freon with some other coolant which will not damage the ozone layer.

Which of the following can be a direct inference from the above statements?
(A) A coolant cheaper than Freon is available for use in the refrigerator.
(B) Coolants which do not have any damaging effects are available for use in the refrigerators.
(C) The ozone layer is on the verge of extinction.
(D) Preserving the ozone layer intact is essential for the inhabitants of the earth.

16. The publishers of a certain book decided to discontinue its publication as fewer than 3000 copies of the priced editions of the book had only been sold. The author of the book posted it on his website where anyone could download it without paying for it. The publishers were pleasantly surprised to find the sales of the priced physical book soaring to as high on 1,00,000 copies within a year.

Which of the following can be drawn as an inference from the above?
(A) The more a book is read the more likely it is to be sold.
(B) The price of a book is a deterrent factor to its sales.
(C) Reader's preferences are highly unpredictable.
(D) In modern times, behind every successful publication, there must have been an attempt at publishing through the digital media.

17. Patents refer to the protection the idea behind an innovation gets whereas copyright refers to the protection the expression of the idea gets. Computer programmes are unique in the sense that they get both these protections. In order to get both the protections it is necessary that the idea behind an innovation and its expression are distinguishable.

Which of the following can be inferred from the statements above?
(A) A patent is only as difficult to obtain as a copyright.
(B) A computer programme writer is the inventor of the idea of the programme.
(C) The idea behind a computer programme and its expression are distinguishable.
(D) In products other than computer programmes, the idea behind them and the expression of the idea are indistinguishable.

18. When the leader of a major party announced the appointment of his eldest son to party leadership few political observers were surprised. As a reporter said, 'it was only a question of which son it would be!'.

The statements above invite which of the following conclusion?
(A) The eldest son has worked hard to make the party popular.
(B) The other sons of the leader are as capable as his eldest son.
(C) The party leader was impartial in selecting a successor.
(D) The party enjoys the support of the media.

19. Professor: Picture a pasture open to all. A herdsman grazing his animals on the land will have an incentive to add another animal to his herd. And another; and another….. But this is the conclusion reached by each and every rational herdsman sharing a commons. There in lies the tragedy.

Which of the following conclusions can most properly be drawn from the information above?
(A) The commons should probably be replaced by systems of personal ownership.
(B) The commons are somehow backward, characteristic of pastoral nomads.
(C) The common resource is too extensive to keep people out very easily.
(D) Each herdsman captures all the benefit from an extra animal but the cost of overgrazing is borne by all.

20. Physical conditions necessary for life on earth such as availability of oxygen, required heat, light etc are not present on any planet in the Solar System other than the Earth. Thus it can be concluded that planets other than Earth cannot be the habitats of any life.

Which of the following is an assumption in arriving at the above conclusion?
(A) Planets other than Earth do not have enough oxygen.
(B) Planets belonging to systems other than our solar system may sustain life.
(C) Earth is the most conducive place for any life.
(D) Physical conditions necessary for life on Earth are the same as those required for organisms of any kind.

21. Chemical fertilizer and pesticides are very expensive and bound to increase the costs of production of crops. Hence farmers desirous of increasing their profits must use natural manure which is relatively cheaper to obtain.

Which of the following is an important assumption in arriving at the above conclusion?
(A) The yield per unit of land suffers when a change from chemical fertilizers and pesticides to natural manure is made.
(B) Chemicals fertilizers and pesticides are available to meet the requirement of all farmers.
(C) Natural manure is available free of cost.
(D) The quality of crops remains the same despite the change from chemical fertilizer to natural manure.

22. Ethical standards accepted worldwide admit to a person's right to keep his private thoughts secret. Hence narcotic tests, administered on hardened criminals to expose certain truths hidden in their minds while their subconscious mind is awake, are unethical.

Which of the following is an assumption in the above conclusion?
(A) Ethical standards may vary from region to region and from time to time.
(B) An individual's human rights are more sacrosanct than the rights of a society.

(C) Ethical standards need not be applied in procedures adopted to elicit information from criminals.
(D) To get the truth from the criminals, conducting narcotic tests is our only option.

23. Economic recession has hit the automobile industry very hard resulting in massive retrenchment of workers in the industry. As this would increase the supply of labour, the wages of workers in the financial sector are likely to go down considerably.

Which of the following is a major assumption in arriving at the above conclusion?
(A) Workers of various industries are interchangeable.
(B) Economic recession has not hit the financial sector.
(C) There is no minimum level of wages below which workers would not work.
(D) The financial sector is already saturated with workers.

24. A mobile phone manufacturing unit produces 5000 phones per month. The manager wants to ensure that the quality of the phone units is high. The manager, therefore, decides to reject 500 of the phones produced every month.

Which of the following points to an assumption behind the manager's action?
(A) Going by their profit margins, the company can afford to lose 10% of its output.
(B) The quality of the mobile phone is open to suspicion if all the products are accepted.
(C) The market standard for rejection rates is only 5%.
(D) Atleast 90% of the phones produced are of high quality.

25. Alarmed at the increasing incidence of accidents on the highways, state X proposes to increase the fine for violating traffic regulations by 50%. This measure, it is hoped, will bring down the number of accidents on the highways effectively.

Which of the following is a major assumption in the above argument?
(A) The state has the legal right to enhance the fines for traffic violations.
(B) Users of vehicles on the highways can afford to pay such increased fines.
(C) Accidents occur only due to violation of traffic rules by road users.
(D) Fine rates and number of accidents are inversely related.

EXERCISE – 2

Directions for questions 1 to 25: Each of the following questions is based on a short argument, a set of statements, or a plan of action. For each question, select the best answer from the given choices.

1. In country X, while public opinion is largely in favour of private ownership or public-private partnership in the segments of air and rail transport, when it comes to road transport, the means of transport for the economically weak, the overwhelming opinion is that this should remain in the public sector. This, it is felt, is because only the government can work for social welfare on a no-profit basis.

Which of the following is an assumption by the champions of public good in making a "road-transport in the public sector" demand?
(A) profit orientation of a service provider makes common people pay more for services.
(B) Enterprises in the public sector always run on losses.
(C) Private owners of public transport systems are generally profit-oriented.
(D) Air fares and rail transport fares are much higher than the fares for the road transport systems.

2. Philanthropy works where donors are assured that their money would be put to good public use. They want to be sure that corrupt administrators and politicians would not squander away their hard-earned wealth. This comfort factor, so necessary for charity to flourish, is missing today.

Which of the following conclusions can most properly be drawn from the information above?
(A) Philanthropy functions best in societies that uphold public transparency.
(B) For individuals to give to society, society must deserve it first.
(C) Philanthropy functions best in places where public servants are trusted till they are proven guilty.
(D) Today's society does not get philanthropic donations because of the apprehensions about the misuse of funds.

3. Deepika: Now is the time to invest in a flat or a plot– real estate prices should not increase during the next six months unless interest rates drop significantly.
Ankur: I disagree. Three years ago interest rates fell significantly but real estate prices did not increase at all.

It can be inferred from the above exchange that Ankur has interpreted Deepika's statement to mean that
(A) interest rates are the only significant economic factor determining real estate prices.
(B) interest rates are likely to fall significantly in the next six months.
(C) real estate prices are directly proportional to interest rates.
(D) if interest rates fall, real estate prices must rise.

4. The fact that the pictures of Taj Mahal are found even on chocolate-boxes seems to reduce the aesthetic value of the Monument. Many tourist guide books seem to entreat us to read Mughal Emperor Shah Jahan's mausoleum as the world's greatest monument of love. Like those of Mona Lisa, the imitations of Taj Mahal certainly downgrade value of the Monument.

Which of the following, if true, would most seriously undermine the validity of the above conclusion?
(A) When you arrive in Agra every hawker peddles imitations of Taj of every size and price to make the familiarity-breeds-contempt problem worse.
(B) Recently a British friend making his first trip to India decided to leave the Taj off his itinerary because of its over-exposure.
(C) A piece of art is imitated and branded most because of its insurmountable beauty.
(D) One's imagination of Taj is tarnished by cruel tales of the master mason's hands being cut off so he would never build anything lovelier.

5. Social networking is a love-hate relationship. On the one hand, managers want their workers to experiment so they can cultivate new-world skills. Employees as brand ambassadors! Products virtually transformed into overnight hits! On the other hand, bosses are filled with foreboding about social networking's dark side – losing secrets to rivals, the corporate embarrassment of errant employee tweets, becoming the latest victim of a venomous crowd.

Which of the following conclusions can most properly be drawn from the information above?

(A) Social networking is fast becoming the way people and companies collaborate and find new business.
(B) Employers must discipline and fire workers for their internet airings.
(C) Employees must stay away from controversial topics that aren't related to their corporate role.
(D) Companies are scrambling to silence errant messages while exploiting social networks.

6. The level of industrial pollutants in the water bodies of a state has fallen by an average of 20% during the last five years. The government claims the credit for the decrease by mentioning the Clean Water Act passed by it five years ago. The opposition, however, attributes the decrease to the reduced industrial activity due to the recession because of which at least 10% of the businesses closed during the period.

Which of the following if true, would most seriously weaken the opposition's argument?

(A) Few corporations migrated to other states during the past five years to avoid the stringent regulations of the Clean Water Act.
(B) The officials charged with the enforcement of the Act have prosecuted only two violators of the law, due to budgetary constraints.
(C) All but 5% of industries that shut down in the state during the recession were treating their waste before discharging it into water bodies.
(D) Economic conditions in the country during the past five years have been worse than those within the state.

7. Households in the city recently started the segregation of waste into biodegradable (mostly food and organic matter like fruit and vegetable peels) and non-biodegradable (like plastic covers, cartons etc). A study of the garbage of a large number of average-sized households has found that a household discards more non-biodegradable waste when its food is made up of more canned and pre-cooked packaged foods. Such households discard less biodegradable waste.

It can be inferred from the above that:

(A) The segregation of garbage makes families more conscious of the kind of food they consume.
(B) An increasing number of urban households rely on canned and packaged foods.
(C) The more fresh produce a household buys, the healthier it is.
(D) The more fresh produce a household consumes, the more biodegradable waste it produces.

8. X: Listening to your inner voice is not always a good thing. The voice can be irritating and even negative with its constant warnings, it can get you down. But not listening to it is difficult. Trying to suppress the voices can make them louder and more insistent.

Y: But you should not just listen to one voice. If the devil is on your left shoulder, the angel will be on your right and they are whispering in your ears – you must listen to both. Bring your inner voices together and listen carefully to what they have to say.

Which of the following is the conclusion intended by Y?

(A) The voices surface only when a person has been psychologically battered.
(B) Inner voices have something meaningful to say.
(C) People who only see the bad often have to struggle to learn to look in all directions again.
(D) A person cannot prevent negative thoughts.

9. The number of patients who died after they were admitted and treated at 'Citicare' hospital is more than that at 'Medicare' hospital. This clearly shows that the medical treatment at 'Medicare' is better than that at 'Citicare' and a patient should seek treatment at 'Medicare' hospital.

Which of the following, if true, casts the most serious doubt on the conclusion above?

(A) At any time, 'Medicare' has more patients taking treatment than 'Citicare.'
(B) The treatment charges at 'Medicare' are higher compared to those at 'Citicare'.
(C) The diagnostic equipment available at 'Citicare' is superior to those at 'Medicare'.
(D) While 'Medicare' usually treats patients in the early stages of their disease, 'Citicare' treats patients in the most advanced stage of their diseases.

10. Jim: I underwent medical treatment under Doctor X for thirty days for my backache. There was absolutely no improvement. After this I went to Doctor Y for treatment. We are into the third week of treatment and already the condition of my back has improved vastly. Both the doctors follow the same system of medicine though their ways of treatment are different. Hence Doctor Y's treatment is definitely more effective than Doctor X's treatment.

Which of the following, if true, repudiates Jim's claims?

(A) Doctor X's treatment usually takes about 40 days to show results.
(B) Doctor X treats a wide variety of body pains whereas Doctor Y concentrates only on back pains.
(C) Doctor X started his practice much earlier than Doctor Y.
(D) While Doctor X is easily accessible Doctor Y can be approached only after seeking an appointment 15 days in advance.

11. The literacy rate of a small island, 'Emerald' with a population of about a million was found to be nearly 60% in a survey conducted two years back. A massive earth quake last year claimed the lives of almost one lakh people in the island. A survey taken this year shows that the literacy rate has gone up to 64% in the island. The number of births and deaths (due to other reasons) were not significant in the island in the two year period. The government claims that it was due to its efforts that the literacy rate has gone up in the island.

Which of the following, if true, most seriously weakens the government's claim?

(A) Almost all the people who lost their lives in the earthquake belonged to a city with that had 100% literacy.

(B) The total population in the island has come down since the last survey.
(C) Literacy rates will always go up because an illiterate can becomes a literate but the converse case is not possible.
(D) Among the victims of the earthquakes, a vast majority were illiterates.

12. In a recent survey conducted in a city, it was found that among three hundred houses which had burglar alarms, a burglary attempt was made only in one house, during the last three years. This clearly proves that fitting houses with burglar alarms is an effective deterrent to burglary.

Which among the following, if true, exposes the most serious flaw in the above conclusion?
(A) In the houses which had manual security during the day, the burglar alarms were activated only during nights.
(B) The bugler alarms were fitted in such a manner that their presence was not noticeable to outsiders.
(C) The burglaries were committed usually only during nights.
(D) The three year survey period saw a spurt in robberies and attempted robberies in the city.

13. Oceanica has ordered withdrawal of its troops from 'Nationalina' a country which was under its occupation for the past three years. Earlier this year, 'Allina' a country friendly to 'Nationalina had sent its troops to 'Nationalina' to fight along with its army. 'Allina'' claims that only its action of sending troops to 'Nationalina forced 'Oceanica' to withdraw its troops from 'Nationalina'.

Which of the following, if true, casts the most serious doubt on the claims of 'Allina'?
(A) The number of Nationalina troops was small compared to that of Oceanica's army.
(B) Oceanica had never thought of leaving Nationalina till about a year ago.
(C) A new government which had come to power in Oceanica this year had in principle decided to withdraw from all occupied territories.
(D) There was no appeal from 'Nationalina' to 'Oceanica' to vacate its occupied territory.

14. Scientists studying the formation of ice on oceans have found that 'ice age' has been cyclic and has invariably occurred once in five hundred years ever since known history of mankind. This means that the next ice age is due to occur in this century itself. So all predictions regarding melting of ocean ice due to global warming are unwarranted, according to these scientists.

Which of the following, if true, casts the most serious doubt on the claim of some scientists that predictions of global warming are unfounded?
(A) Ice ages also have harmful consequences though not as severe as the effects of global warming.
(B) Ice ages were found to occur quickly in the years preceding the known origin of human kind on earth.
(C) Ice ages do not last for more than ten years.
(D) Last century saw a large scale use of motor vehicles and refrigerators whose effect on ice melting in oceans is much more than all the factors that prevented ice formation in the earlier years.

15. 30 students of a class were tested on archery. These students were then given a seven-day training course in archery. When the students were tested again after the course, they showed a forty percent improvement in accuracy. Thus it is clear that the course is helpful in improving accuracy in archery.

Which of the following, if true, weakens the argument above?
(A) A three day short term course conducted by the same tutors did not yield proportionate increase in efficiency.
(B) The thirty students also practised archery daily for two hours apart from fulfilling the requirements of the course.
(C) In an archery competition held just after the course, where students from other schools participated as well, the students of this referred school could not win any prize.
(D) Similar training courses conducted for other sports did not improve the efficiency of the participants.

16. Global warming has resulted in the melting of ice in oceans leading to eventual evaporation of potable water from the earth's surface. Thus global warming is solely responsible for the significant depletion of drinking water resources in the globe by about 20 percent in the last 10 years.

Which of the following, if true, weakens the argument that global warming is solely responsible for the depletion of water resources on earth?
(A) There have been a few years in the last decade when the global temperature actually showed a decrease.
(B) Global warming results in other harmful consequences such as loss of marine organisms.
(C) Water from other water bodies also tend to evaporate.
(D) Human population and animal population on earth have registered a significant rise in the last 10 years.

17. Some popular energy drinks available in the market can provide 100 percent of the recommended daily requirement of vitamins. Nevertheless, a well-balanced meal, including a variety of foods, is a better source of those vitamins than are such fortified energy drinks alone.
Which of the following, if true, would most strongly support the position above?
(A) Since buying one bottle of such drinks requires less effort than planning and selecting food items to make a balanced diet, people prefer the former.
(B) People may not get their daily requirement of vitamins from foods since they eat insufficient fruits and vegetables.
(C) The combination of vitamins with other nutrients in food makes those vitamins more usable by the body than vitamins added to energy drinks.
(D) Natural food products are easier to digest than fortified energy drinks.

18. Rohan and Lila earn the same wages per hour for working in the same company. However, Rohan's job is more strenuous than that of Lila. Rohan, therefore, argues that because his job is more demanding he deserves a better pay than Lila.

Which of the following statements best supports Rohan's line of reasoning?
(A) Rohan has more years of experience than Lila has.
(B) The company has never unequivocally taken a stand that women should be paid at the same rate as men.
(C) Rohan is in any case due for a promotion.
(D) The salary structure of the company is designed to give greater compensation for a job that is physically more demanding.

19. Nick Griffin, the leader of the BNP (a party with 'whites only' policy), has been catapulted into the European parliament. It's tempting to dismiss those who vote and stand for BNP as stupid, but the truth is more disturbing Griffin is an apparently intelligent Cambridge graduate. Yet he is unable to think himself out of a racist framework. Many of us would like to believe that intellect banishes prejudice but it is not necessarily so.

All of the sentiments expressed below by great philosophers strengthen the above conclusion EXCEPT
(A) David Humes in his footnote to the essay 'Of National characters' said 'I'm apt to suspect the negroes to be naturally inferior to the whites'.
(B) Another Enlightenment icon, Immanuel Kant, in his 'Observations on the feeling of the Beautiful and the Sublime' said 'The blacks are very vain but in the Negroes' way, and so talkative that they must be driven apart with thrashing'.
(C) Samuel Johnson was no cosmopolitan and nurtured a prejudice against the Scots.
(D) Johnson quipped in a pamphlet about America: 'How is it that we hear the loudest yelps for liberty among the drivers of negroes?'

20. Restaurants and hotels are badly mismanaged. Fifty years ago, a satisfying meal used to cost less than a dollar. Since then the prices have increased at least ten fold with an actual decrease in quality and taste.
Which of the following statements, if true, would tend to strengthen the argument above?
(A) The number of people eating out has increased dramatically over the last fifty years.
(B) Restaurants and hotels today focus more on ambience and appearance than on the food served.
(C) The quality of home food is always thought to be superior to what can be had at restaurants and hotels.
(D) The number of hotels and restaurants is several times what it was fifty years ago.

21. Amniocentesis is a test designed to detect chromosomal abnormality in the unborn foetus. In India it is used to determine the sex of the foetus to help parents to abort the female they do not desire. Though the test has been banned by law, both those seeking the test and those conducting it are culpable, it is clear that in India it is very much used for the undesirable purpose.

Which of the following strengthens the above conclusion?
(A) All hospitals, diagnostic centers and doctors' clinics have posters informing people that amniocentesis is illegal.
(B) The test has shifted from being an overt to a covert practice.
(C) Many religious, traditional and cultural beliefs reinforce the importance of sons over daughters.
(D) The national demographic census shows that the male to female ratio of new born which stood at 917 to 1000, a natural proportion world wide, has been reversed in India.

22. The recent attack of flu is far more severe than such attacks usually are and take longer to cure. Doctors believe the cause of the flu to be a certain bacterium. However, recently released data mentions that the bacterium seems to thrive in the presence of a certain virus. Some doctors are of the opinion that it is the virus that actually causes the flu.

Which of the following would most strengthen the opinion of some doctors?
(A) Onset of the flu usually follows infection by both the virus and the bacterium.
(B) The bacterium is seen to grow and multiply better in the presence of the virus, when the flu attack begins.
(C) The flu has been observed to follow infection by the bacterium even in the absence of the virus.
(D) In many instances of the flue attack, the virus alone has been detected.

23. Jacob:
It is unfair on the part of parents to compel their teenaged children to accept their choices on any issue. Since parents desire freedom of choice and detest being forced by others to accept anything, they should also not except their teenaged children to follow their suggestions.

Which of the following, if true, can strengthen an argument against the one used by Jacob?
(A) Children these days are much more informed than parents and so can take independent decisions.
(B) In human lives, experience has always played a significant part in making the right choices.
(C) Children, who are constantly monitored by the parents, become incapable of taking decisions in their later lives.
(D) Present day parents might not have obeyed their parents when they were children.

24. Images on the television screen move in rapid succession whereas a book can be read at the reader's pace. Further, information in a book can be visited any number of times. Thus educational programmes for children through television will not be as successful as teaching with the aid of books.

Which of the following, if true, casts the most serious doubt on the above argument?
(A) While viewing T.V may impair the eyes of a child, reading books will not.
(B) With undiverted attention at what they see and a fertile mind, a child needs but a quick glance to grasp an information.
(C) Children are more fond of T.V programmes than elders.
(D) From time immemorial children have been imparted knowledge through stories, as they like them.

25. Increasing demand for a number of goods drives up their prices. If tax rates are enhanced it will reduce the quantum of money in the hands of the spending public. Thus enhanced tax rates will result in control of prices of goods.

Which of the following, if true, most seriously undermines the above argument?

(A) Increasing tax rates will make the government unpopular with the public, a situation that no government would want.
(B) Reduced demand may lead to fall in production and hence reduce the real income of the public.
(C) Non wage earners cannot be subjected to increase in tax rates and hence the move will not be effective.
(D) Any reduction of money in their hands usually drives people to cut their investments to amounts equal to such reduction.

EXERCISE – 3

Directions for questions 1 to 25: Each of the following questions is based on a short argument, a set of statements, or a plan of action. For each question, select the best answer from the given choices.

1. All the success stories of achievers around the globe at all times, show that all of them had undergone several failures and they finally succeeded only because of their persistent efforts and never-say-die spirit. Thus if anyone ignores failures and perseveres in her chosen mission she is bound to succeed and achieve success in life.

Which of the following, if true, casts the most serious doubt on the above conclusion?

(A) While stories of successful persons come out in the open, those of failed ones who also toil never see the light of the day.
(B) There are still a number of achievers worldwide who remain far removed from pubic glare.
(C) After achieving success, people reap more and more successes in their lives.
(D) There are many achievers whose feats are not acclaimed during their life time.

2. According to a new study, when a person sneezes he spreads sufficient virus to cause the common cold in 15000 persons around in just 10 minutes time. Hence doctors advise people to cover their nose with a handkerchief when a person nearby is sneezing.

Which of the following, if true, casts the most serious doubt on the doctor's advise to safeguard oneself from catching a cold from a person sneezing?

(A) No protection is needed when we are sufficiently far away from the person sneezing.
(B) A handkerchief has small holes between its threads larger than the size of the virus.
(C) It may be considered bad manners to cover the nose with a handkerchief when one is in the midst of a group of people.
(D) Time may not be sufficient to cover the nose with a handkerchief after finding a person sneezing near by.

3. Environmentalists decry the use of plastic chairs and other furniture made of plastics. This is because plastics are bio-non-degradable and hence contribute to environmental degradation. So it is better to use wooden furniture in the place of plastic furniture to prevent environmental degradation.

Which of the following, if true, casts the most serious doubt on the above conclusion regarding the use of wooden furniture in the place of plastic furniture to prevent environmental degradation?

(A) Wood is biodegradable.
(B) Smoke by burning wood also causes air pollution.
(C) Plastic furniture is much cheaper and lighter compared to wooden furniture.
(D) Felling of trees for wood causes deforestation.

4. John has five children – a, b, c, d and e – not necessarily in that order. c, the eldest is a son. b and e are twins – one a male and the other a female again not necessarily in the same order.

Which of the following is the minimum additional information required which can help in answering the question, 'How many daughters does John have?'

(A) John has more sons than daughters.
(B) e, the youngest is female.
(C) d is the last son of John.
(D) John has more daughters than sons.

5. 40% of the population in a country is female. 60% of the males in the country are literate and 70% of the females are illiterate.

If the particulars given above are true, which of the following must also be true?

(A) The female illiterates in the country are less in number than the male illiterates.
(B) The total literates in the country are more than the total illiterates.
(C) The total males in the country are less in number than the total females in the country.
(D) The literate males are more in number than the illiterate females.

6. Medical research on cure for certain deadly diseases is funded liberally by the government from out of general tax revenue. Certain cities insist that the cost of such medical research must be collected only from those who undergo treatment evolving from such research.

Which of the following forms the basis for the objection of the cities to the government funding of medical research?

(A) There are other more important needs which must be met with government's resources.
(B) Medical research involves huge costs and hence government cannot be expected to fund it exclusively.
(C) Medical research generally involves experimenting with guinea pigs and hence government funding it is unethical.
(D) Only the end user of any facility must bear all the cost of a facility.

7. Country X is the largest producer of coffee accounting for nearly one fourth of the global production. However coffee is not among the major items of export from the country.

Which of the following, if true, cannot be the reason for the fact that country X is not a major exporter of coffee?

(A) The quality of coffee grown in the country is inferior compared to most other coffees sold in global markets.
(B) The price of coffee produced in X is at least 25% more than that of coffee exported major exporters of coffee.
(C) Coffee produced in country X has a tendency to become tasteless in a few days after it is picked from plants unless preserved at high cost.
(D) The people of the country X prefer tea to coffee.

8. Several farmers in the U.S. have, of late, switched over to organic farming from using synthetic fertilizers and pesticides, whose costs are rising rapidly. Organic farming also helps in replenishing the nutrients in the soil. However organic farming results in reduced yields in the first few years of switching over. Despite this, no farmer who has switched over to organic farming has reported any fall in income in the initial years of switching over or subsequently.

Which of the following, if true, can offer an explanation for the above?

(A) The yields, when organic farming is resorted to, increase considerably after five or six years.
(B) As the farmers who have switched over to organic farming have done so more because of environmental concerns than because of income considerations, they do not mind the loss in income.
(C) Farmers who have been doing chemical farming use costly methods which they cannot discard easily and switchover to organic farming.
(D) Consumers are prepared to pay more for produce from organic farming because they know that those from chemical farming are harmful to their health.

9. Researchers repeatedly aver that high blood pressure (hypertension) results if there is a large presence of salt. Normally foods consumed by people in the tropical countries contain a much higher content of salts than those consumed by those in the cold countries. Thus it can be expected that high blood pressure is more prevalent among people in the tropics than those in temperate regions. However statistics do not show any marked variation in the prevalence of high blood pressure in the two regions.

Which of the following, if true, can offer the most possible explanation for the above contradiction?

(A) People in the tropics are also large consumers of food items like fruits which contain less salt.
(B) The climatic conditions in the tropics lead to profuse sweating resulting in loss of salts and water.
(C) Though people in the cold climates do not consume salty preparations due to health considerations, they are nevertheless fond of such foods.
(D) More number of people in the tropical countries suffer from heart diseases for which one of the causes is hypertension.

10. A vast majority of movie-buffs desire to see a movie as soon as possible after its release. Watching a movie in the comfort of home is always more welcome than watching it in cinema halls. However, telecasting the movie has not caused any dent in the initial days of release of a movie.

Which of the following, if true, can offer a suitable explanation for the attendance not coming down in cinema halls in the initial days of release of a movie?

(A) Law prohibits the screening of any movie in the television within a year of its release.
(B) Watching a movie on a television costs less than watching it in a cinema hall.
(C) The attendance for a cinema depends on the popularity of the stars cast in the movie.
(D) The owner of the rights to a movie earns more when it is telecast through the television from the commercials shown in between.

11. Almost all the textile shops in St.Benedict town have reported a sharp increase in sales of a particular design of coats worn by women - one that's totally different from the design a huge majority of women in the town have been wearing until recently. This shows that coats of the new fashion are a craze with the women in the town and we can expect a massive switchover to the new type shortly.

The argument above is properly drawn if the truth of which the following is assured?

(A) Fashions change every now and then and women generally adopt the latest fashion.
(B) St. Benedict is a town where cultural changes occur very rapidly.
(C) The coats sold in the various shops of the town are meant to be used locally.
(D) The prices of coats of the new design are affordable for the women of the town.

12. India's population is expected to increase by 100 and 150 million by 2020 and 2035 A.D. respectively. This will require 240 and 325 million tonnes of food grains respectively. Taking the current production of food into consideration, it can be said that India needs to raise its food production by 5 million tonnes per year. Since the land-to-man ratio is narrowing rapidly, there is almost no scope for horizontal expansion to meet the projected demand of the future.

Which of the following can be a solution to this problem?

(A) India should now start importing food grains from other countries.
(B) The production of other crops should be cut down and food production given utmost importance.
(C) Cross breeding to improve the quality of food grain should be encouraged.
(D) The government should adopt new technologies to increase the production of food grains.

13. It is a well-known fact, duly supported by statistics compiled by leading research agencies, that more and more people are building residential properties in the suburbs than in the heart of a metro. So, in order to boost its sagging sales, Bheem Cable Internet should try to focus more on the suburban market than on the centrally located markets.

What does the above argument assume?
(A) There is no movement of people from suburbs to the central areas.
(B) Bheem Cable's sales have declined recently.
(C) Sale and purchase of property is a crucial parameter to be considered in marketing Internet connections.
(D) Purchasers of property in the suburbs do not keep the property idle.

14. 'There is a price to pay for nuclear independence', said the Finance Minister grappling with the problem of fixing the price and how to make the nation pay it; how to make the world, the NRIs and everyone else come to the aid of the party. He knew that there would not be global sanctions, only national hiccups. But with an economy on the slippery slope of recession, even hiccups could cause upheaval. So, even as the people were in an upbeat mood, the economy was on a slide. The Pokhran fallout may have been politically beneficial but it was economically disturbing.

Which of the following is true according to the paragraph?
(A) The nuclear test in Pokhran has proved harmful to the flow of foreign investment into India.
(B) The India Development Fund has failed to meet the requirements of the Indian economy.
(C) The Pokhran nuclear test proved to be economically helpful, though politically disturbing.
(D) The economy in India was on the verge of a recession, and the Pokhran experiment could have been the last straw.

15. During the last ten years, 35 percent of those who passed from management schools were women. All those who passed from management schools have secured jobs. However, of all the persons who passed from management schools and who are employed, women form only seven percent.

Which of the following, if true, can explain the difference in percentages mentioned in the above passage?
(A) Each year the top few ranks from the management schools were secured by men.
(B) Population of women has gone down from 60 percent to 51 percent in the country in the last ten years.
(C) Majority of those from management schools and who are in jobs now were employed more than 10 years ago, at which time nearly 95 percent of the batch were men.
(D) Women are unable to secure jobs which pay them a wage equal to what a man would be paid.

16. People of a nation have suddenly started suffering from a strange viral attack. The virus, on attacking a person, multiplies quickly and creates serious problems, sometimes proving fatal. The symptoms of the disease, however, become apparent only five days after the virus attacks a person. Very effective medicine to kill the virus is available in the market. Nevertheless, doctors are unable to cure the viral disease and prevent death.

Which of the following, if true, accounts for the above situation?
(A) The cost of medicine is beyond the reach of the poor people of the country.
(B) The multiplication of the virus inside the body is so fast that it requires sustained medication for at least a week to cure the disease.
(C) The medicine available in the market is effective only if administered within two days of the viral attack.
(D) As the viral disease is relatively new, some of the doctors are unable to diagnose it correctly.

17. More than half of the firms employing U.S labor do not strictly follow the nine to five, five day week schedule stipulated for labor. This is attributable to the sharp increase in the number of firms in the service sector and also the personnel in the service sector gradually outnumbering those in other sectors.

Which of the following, if true, could explain how the violation of the work hours stipulation has been due to the growth of the service sector?
(A) Most of the jobs in the service sector are related to leisure activities which people normally indulge in outside the nine to five schedule.
(B) The personnel employed in the service sector are paid much more than those in other sectors.
(C) The scope for a drastic increase in the number of jobs exists only in the service sector now.
(D) Persons employed in sectors other than the service sector have more physical work to do and hence cannot work for more hours beyond the nine to five schedule.

18. Artificial knee implants, thought to be a safe procedure till now, may cause cancer in patients 30 years after the implants, according to a new study. Though such implants effectively help to improve the quality of life of the recipients, they are not advisable because of the cancer they are likely to cause.

Which of the following, if true, can be a counter argument to the above argument?
(A) Other implants are also believed to result in some undesirable consequences but still they are performed.
(B) The patients even after knowing the risk involved insist on knee implants.
(C) In some of the cases where implants have caused cancer the affliction has not proved fatal.
(D) Almost all the patients in whom knee implants are done are old and the probability of their living beyond 20 years is low.

19. JOHN: Mr X has been awarded the Nobel prize for chemistry this year. It is right on the part of country 'K' to claim that the prize has been awarded to it, as the research work for which Mr. X was awarded the prize was carried out, by him entirely in the last 10 years while staying in K, where he has taken his citizenship.
PAUL: But Mr. X was born in country 'T' and he had his entire education there before he moved to 'K' and hence 'T' is more entitled to the claim.

Which of the following relationships does Paul's response have to John's argument?
(A) Paul explains why John's argument is totally unfounded.

(B) Paul counters John's argument by suggesting a basis he thinks is fairer to adjudge the claim.
(C) Paul agrees with John's argument but differs from him only on the basis of his reasoning.
(D) Paul suggests that a person's place of birth and education play a significant part in a person's academic achievement.

20. As a consequence of the phenomenal expansion of the service sector last year the job openings in organizations of the service sector registered a steep rise and were many times more than those in other sectors. However, a survey among students who passed out of colleges last year indicated that a higher percentage of students who pursued courses relevant to the manufacturing sector secured jobs, than those who did courses catering to the service sector.

Which of the following, if true, can be a proper explanation for the above happening?
(A) Few among those who undertook courses leading to jobs in the service sector went for higher education.
(B) While almost all employers in the service sector stipulated experience of atleast 1 year as a necessary qualification, employers in other sectors were satisfied with academic qualifications.
(C) A sizeable number of students who pursued courses leading to jobs in the service sector landed jobs in other sectors.
(D) A good majority of students who had passed out of colleges in earlier years secured jobs last year.

21. John: Jim is eminently qualified to be the President of the country, as he is a scholar and also has experience as a senator for nearly fifteen years.

Jack: But Jim is not likely to be elected President as the poor apprehend that his policies may hurt them.
Jack's argument depends upon which of the following?
(A) Being a scholar and having experience will not help Jim in functioning as President of the country.
(B) Jim comes from an affluent family.
(C) The poor do not vote for those who are academically well-qualified.
(D) The poor of the country constitute a deciding factor in the outcome of the Presidential election.

22. Allergy is the reaction of the body to the entry of foreign entity. A recent study has revealed that food allergy is more common in country X than in country Y. However, more people of country Y were consumers of foods that usually cause allergic reactions (such as milk, fish etc) than those of country X.

Which of the following, if true, could offer an explanation to the contradiction above?
(A) Country X is smitten with antibacterial detergents and hand sanitizers which incapacitate the immune system leading it to misidentify certain foods as foreign.
(B) Allergy is also caused by factors other than the presence of foreign elements in food.
(C) Country Y has got more doctors, who specialize in treating food-allergy-related diseases than country X.
(D) People of country Y have been consumers of allergy-causing foods for a long time and there has been no known evidence of deaths caused by allergic reactions to food.

23. Humidity refers to the presence of water vapour in the atmosphere around us. It is surprising that the higher the humidity at a place, the greater people seem to sweat.

Which of the following, if true, can be a logical explanation for the above phenomenon?
(A) A higher temperature evaporates the water vapours in the atmosphere.
(B) People sweat only when they exert themselves physically.
(C) Presence of water vapour in the atmosphere is anyway negligible.
(D) Pressure of water vapour at a saturation level in the atmosphere prevents sweat from human bodies from evaporating.

24. In 2005, farmers in country X produced a cabbage crop that was one-and-a-half times as large as that produced in its neighbouring country Y. Yet the total quantity of cabbage available for sale to consumers in country X was smaller than were total quantities in country Y.

Which of the following, if true in 2005, contributes most to an explanation of why there was less cabbage available for sale to consumers in country X than in country Y?
(A) Country X had more land suitable for growing cabbage than did country Y.
(B) Cabbage was much more popular among consumers in country X than in country Y.
(C) Country Y exported more cabbage in 2005 than country X.
(D) Farmers in country X consume a greater part of their cabbage crop than those in country Y.

25. Bird hits in the air when flights take off or land are a major cause of accidents involving aeroplanes. Hence it is advisable to relocate the sanctuary for emus, proposed to be constructed near the air port, to a distant place.

Which of the following, if true, would show that the above advise to shift the proposed bird sanctuary is not logically founded?
(A) Aeroplanes reduce their speed, while taking off or landing.
(B) Emus are large birds that can't fly high because of their body weight.
(C) There have been accidents due more to technical faults than to bird flights.
(D) Environmentalists believe that the proposed construction site is ideally suited for a bird sanctuary.

READING COMPREHENSION

Reading Comprehension is generally designed to test your ability to read a passage and understand its contents and your ability to draw inferences on the basis of what you read. In other words, your ability to grasp the contents of the passage in a relatively short span of time is what is being tested.

The Reading Comprehension section in **MBA** entrance exams are also no different in this respect, i.e., you are expected to read the given passage, understand its contents well and answer the questions given at the end of the passage - all this to be completed in the limited time that is given.

Hence, the two important things in Reading Comprehension are

Reading Speed and Comprehension of the Passage

For good performance in RC area, you need a combination of the above. Let us look at the two aspects individually and understand them in detail before we get into the techniques of attempting Reading Comprehension.

While reading skill cannot be evaluated on a "number of words per minute" scale, reading speed can definitely be measured. A person who can read faster can answer more questions in the given time than a person with a slower reading speed, other things remaining equal. It is this reading rate or your speed of reading that you have to aim at improving. There is no overnight solution to this. Constant and extensive reading will improve your reading rate. Check your reading speed today (take any passage, count the number of words, note the time taken to read it and calculate the speed in words per minute) and keep a record of it. Then, keep checking your speed once a week and tabulate the same. Check whether your speed has increased over time with practice. However, do not become complacent if your speed has increased.

This brings us to the second point, i.e., understanding of the passage. A person may be able to read the passage much faster than others but if he is not able to answer the questions pertaining to the passage, then the speed is of no use at all. It is essential to grasp the meaning of the passage while reading. While you are reading, you should constantly think, evaluate, reason out, judge and correlate with what has already been read. A good vocabulary would enable you to understand the nuances and grasp the meaning of various issues discussed in the passage. While an attempt can be made to point out various categories of questions that may be asked, you will basically have to draw on the resources built by wide and extensive reading and rely on your own vocabulary. No coaching is possible regarding understanding and analysing the problem. However, we are going to take you through an extensive set of tests on Reading Comprehension to ensure that you get thorough practice.

In addition to good vocabulary, you should also develop the ability to zero in on the central theme of the passage. This can be developed by extensive reading practice as well as proper concentration at the time of reading the passage. You should also consciously develop the habit of correlating each new sentence read with the part of the passage already read and mentally form a linkage of all ideas expressed in the passage while simultaneously weeding out redundant statements.

The passages given in **MBA** entrance exams do not conform to any standards as regards the subject matter or the length of the passage. While the subjects covered can be as wide ranging as Sciences (like Botany, Zoology, Chemistry, Physics, Astronomy), Social Sciences (like Psychology, History, Economics, Politics, Sociology), Humanities (like Literature, Art, Music) or Current Affairs (Social, Political, Economical), the student is not expected to have any prior knowledge of the topics given.

As regards the length of each passage, it is normally in the range of 400 words to 1200 words. A number of MBA entrance exams, give 10 to 20 questions in Reading Comprehension based on three to four passages. (Note that the CAT papers of the past three years had 24 questions on Reading Comprehension). Some passages can be very complex in nature while others may be simple in nature and easy to understand.

ASPECTS TO CONSIDER

(1) Should I read the passage first or the questions first?

There are people belonging to both schools of thought. There are also people who say that once you read the passage, you should remember all the points and answer the questions without referring back to the passage. Such a thing is almost humanly impossible and hence you should not keep that as your objective when you are reading a passage.
Let us discuss the issue of reading the questions first before reading the passage. A passage is written in a logical manner and hence when you read a passage, you will be able to follow the ideas without great difficulty. Since questions will not be given in any order, reading unrelated questions and remembering them can pose difficulties. However, scanning through the questions quickly can be helpful when the passage is very long. (Even here, when you go through the questions, you need not remember the questions or the answer choices because it may prove counter productive.)

In general, you will do well if you first read the passage and then go to the questions. However, this "reading" is not detailed reading to understand all the points that the author is making. It should be more of scanning in nature. The main objective at this stage should be to KNOW what points the author is trying to make rather than UNDERSTAND the points. Once the points are known, when you go to the questions, depending on what the question asked is, you can get back to the relevant part of the passage and read that portion in detail to understand what the author is saying and then answer that particular question.

(2) It will be a good idea to ask the questions "who, what, why, when and how" when you read the passage.

(3) The questions can pertain either to parts directly contained in the passage or related to implications and inferences. Sometimes you may be asked to comment on the tone of the passage or to choose a title for the passage or to identify the main idea in the passage but you are hardly ever asked for your "opinion" on the passage.

The following are the major categories of questions that are asked:

(a) Main idea of the passage/title for the passage
(b) Specific details – basically reproducing what is given in the passage
(c) Drawing inferences/implications
(d) Determining the meaning of words/phrases as used in the passage.
(e) Application of the ideas expressed in the passage to other situations
(f) Tone of the passage
(g) From among a given set of statements, identifying true or false statement as per the passage.
(h) Questioning the author: Asking the author an appropriate follow up question or seeking a factual basis or justification for a point of view presented in the passage.

(4) The questions need not be in the order of the text given in the passage.

(5) Where you have to choose a title for the passage or identify the main theme of the passage, check the opening and closing sentences of each paragraph, particularly the opening sentence of the first paragraph and the last sentence of the last paragraph. At the same time, be wary about answer choices that are too specific or too broad.

NOTE ON IDENTIFYING THE TONES OF PASSAGES

Questions on the 'tone' of a passage can be worded in different ways. For instance
(1) Which of the following best describes the tone of the passage?
(2) The tone of the passage is …….
(3) The author's approach / tone / style of writing can be best described as ……
On occasion, the question may require the test taker to identify the tone of a particular statement in the passage.
For instance

The tone that the author uses when making the statement ……. can be best described as.
Adjectives like 'caustic', 'critical', 'satirical' etc will be given as answer choices. The student is required to select the most appropriate choice.

What does 'tone' mean?

The word 'tone' refers to the general attitude that the author displays towards the topic that is discussed in the passage.

Classification of tones

Tones of passages can be broadly classified as positive, negative and neutral. Negative tones can be further classified as very negative and mildly negative.

Method of identifying the tone of a passage

The tone of a passage can be discerned by studying the nature of the adjectives / nouns / verbs that the author uses to express his views on the topic under discussion.

Therefore, the reader should focus on the statements that the author makes, not on statements that the author quotes somebody else as saying.

Once key adjectives / nouns / verbs are identified, they should be analysed carefully.

The following questions will be helpful

(1) Is it a negative word or a positive word?
(2) Is it a mild word or a strong word?
(3) Does the author mean what he says or is he being sarcastic or ironic?
(4) Is there a pattern in the nature of adjectives / nouns / verbs used in the passage? Are they all negative or positive?
If all the key adjectives / nouns / verbs used in the passage are negative, then it can be safely concluded that the overall tone is negative.

Adjectives that describe various types of tones

Given below are adjectives that describe various types of tones of passages.

(1) Adjectives used to describe very negative tones

The tone of passage can be described as being …….	if the adjectives / nouns / verbs used suggest that the author
acerbic, scathing, cutting, biting, vituperative, vitriolic, searing, trenchant, harsh, vicious or caustic	is very harsh towards somebody.
belligerent, bellicose or aggressive	is very hostile towards somebody or something.
derisive, contemptuous, ridiculing, scornful, mocking or disparaging	is making fun of somebody or something with a view to belittling it or showing it in poor light.
incendiary or inciting	is trying to stir up strife.
provocative	is trying to irritate or annoy somebody.

(2) Adjectives used to describe moderately negative tones

The tone of a passage can be described as being ……	if the adjectives / nouns / verbs used suggest that the author
angry or indignant	is annoyed about something that he considers unjust or unfair.
apathetic or indifferent	has adopted an uncaring attitude towards the issues mentioned.
biased, coloured, partisan, prejudiced, bigoted or chauvinistic	is partial to a certain viewpoint with inadequate justification.
condescending, patronising, supercilious or disdainful	thinks himself superior to others and tends to talk down to them.
cynical	believes that people are motivated in all their actions only by selfishness; in other words denying the sincerity of people's motives and actions, or the value of living.
skeptical	has his doubts about something (e.g. the motives behind somebody's actions, the fulfillment of a promise made, the outcome of a course of action).
dogmatic, opinionated or peremptory	is arrogantly and positively stating something as the truth without caring to support his claim with evidence.
obsequious	is overly submissive to a person or an organisation.
critical	is finding fault with somebody or something.
hypocritical	is pretending to be what he is not or being self-righteous when discussing the issue on hand.
sarcastic or sardonic	is jeering at or taunting somebody using ironic and biting remarks.
satirical	is using ridicule, sarcasm, irony, etc to expose, attack or deride vices, follies, stupidities and abuses.
pessimistic, negative or gloomy	expects misfortune or the worst possible outcome in the given circumstance.

(3) Adjectives used to describe positive tones

The tone of a passage can be described as being …..	if the adjectives / nouns / verbs used suggest that the author
optimistic, positive, sanguine, cheerful or buoyant	is hopeful of the prospects of something or somebody and feels that good things are in store.
humourous	has tried to present the topic in a funny and amusing manner with an express view to entertain the reader.
introspective or contemplative	has attempted to analyse his own mind, feelings, actions, motives etc.
laudatory, acclamatory, complimentary or adulatory	is praising something or somebody he considers praiseworthy.
motivating, inspiring or encouraging	has tried to encourage somebody to do something constructive.
commiserating or sympathetic	has pity or compassion for somebody's suffering.

(4) Adjectives used to describe tones that are neither positive nor negative

The tone of a passage can be described as being ……	if the adjectives / nouns / verbs used suggest that the author
neutral	does not favour one point of view over another.
apologetic	is expressing regret for something he has said or done.
emotional	was moved at the time of writing.

(5) Other adjectives that can be used to describe the nature or type a passage

A passage can be said to be …… in nature	if ……..
speculative	it surmises or ponders over various aspects of a given subject or various outcomes of a course of action.
romantic	the views expressed are fanciful and impractical.
humanistic	the author evinces keen interest in human affairs, nature, welfare, values etc.
technical	it extensively uses terminology that is specific to a certain field.
didactic	its author has attempted to instruct his readers through the passage.
narrative	it essentially details a story or incident.
descriptive	it attempts to describe a person, place, thing or concept in detail.
evocative	it encourages the reader to construct a mental picture of a place or an event.

PRACTICAL TECHNIQUES TO IMPROVE YOUR READING COMPREHENSION

As already mentioned, you will be given a number of practice tests in Reading Comprehension to enable you to get sufficient practice in this important area. Please remember that in this area, unlike in other areas like Mathematics where you will be able to assess and see for yourself on a regular basis, how much knowledge you have added on and how much improvement in speed you have achieved, there will not be such clear indicators. However, performance in Reading Comprehension will improve only with practice and that requires a lot of effort and determination on your part.

In addition to the test papers you take, you will have to put in at least 45 minutes of reading practice per day to improve your reading speed and comprehension. You need to take up serious reading material for practice - newspaper editorials, editorials in general magazines like Frontline or business magazines like Business India or other articles in such magazines, general books on a wide variety of subjects like Psychology, Sociology, Technology, etc.

For each article or piece of a book that you read, go through the following process:

-- Read the article/passage
-- Write down 5 to 10 (or up to 20 for longer passages) important points from the passage in a separate note book.
-- Compare the points that you have written down with the text read to see whether you left out any important points.
-- If you now find that a point that appeared in your summary/list was also given in the original text, it means that you have been able to memorize what you have read.
-- If you find that a point that is there in the text has not appeared in your summary but you now consider it to be an important point, then spend a few moments trying to think about this point and as to why you could not recollect it as an important point when you were doing this exercise.
-- This exercise done regularly over a period of time will certainly help you improve your reading speed as well as your ability to understand and retain what you read. But, as already mentioned, only regular practice can help you in this regard.

In order to facilitate your regular practice, take a fresh exercise note book, preferably with foolscap size pages in it.

After reading the passage once, write down the time you have taken to complete the passage at the top of the page. (Keep a separate page for each passage you read). Now count the number of words in the passage. Number of words divided by the number of minutes taken to read the passage gives you your speed of reading in "words per minute". After this calculation, enter the same in a table. A format of this table is given below. Maintaining a record of your reading speeds will give you a clear picture of how you are progressing in your reading practice over a period of time.

EXAMPLE OF TABLE TO ENTER READING SPEEDS (in words per minute)

Reading Speed (Enter your speed in WPM under the type of topic you have read)					
Date	Economic	Political	Social Sciences	Pure Sciences	Others
1.1.13	140	170			180
2.1.13	130	175			175

Make a conscious attempt to read a wide range of topics to develop your reading speed. You will note that your speeds will be higher in areas/topics with which you are familiar. Keep a copy of this table at the back of your exercise note book and observe the gradual improvement. Make an entry of at least two passages in this table every day. A sample entry of speeds of three passages read on two days is shown in the table.

After you read each passage and enter your speed in the table above, you should write down a few points summarising the passage you just read. We have already mentioned that you should use a separate page for each passage you read. You have already written down the number of words the passage has on this page. Your speed in WPM that you entered in the table should also be entered on this page because it pertains to this passage. Now, write the following details on that page:

-- Title of the passage
-- Main idea of the passage in one sentence
-- Important points from the passage (as a summary of the passage)
-- Words given in the passage whose meanings you do not know. (These should be used as a part of your vocabulary improvement exercise discussed separately under Verbal Ability section.)

The important points can range from 10 to 20 depending on the length of the passage.

After the important points are written down, check back with the passage and see whether all important points have been covered.

PRACTICAL TECHNIQUES TO IMPROVE YOUR READING SPEED

First let us try to answer one question. Why does the reading speed differ from person to person? Let us take a statement "If you ask me to choose one important quality that led me to success, I will choose PATIENCE."

If a person whose reading habits are not honed reads the above sentence, he will read one word at a time, i.e., his span of vision allows him to read only one word for each eye movement he makes. This span of vision can be improved with conscious effort and can cover/ read three to five or more words at once i.e., in one eye movement. So, the span of vision is one main reason for the difference in reading speeds. Naturally, you should be interested in increasing your span of vision. Let us take the same statement considered above.

* *
"If you ask me to choose one
* *
important quality that led me to
* *
success, I will choose PATIENCE".

Try to focus your sight on the asterisk on the underlined set of words and make an attempt to read one complete set of underlined words (on left and right side of asterisk) at one time - without having to move your eye from left to right. Initially you might find it difficult to work with this technique. Regular practice will make you comfortable. Hold a pen or pencil in your hand when you are reading so that it helps you concentrate better on the passage. This habit also helps you to underline important points in the passage while you are reading.

Another simple technique which will develop your ability to absorb written words is reading a page by inverting it. You will not be able to understand anything that is written but this exercise helps your mind to pick up words faster than it is used to, as it develops acquaintance with words from different angle. You will experience it when you start reading the page in the ordinary reading position after such an exercise.

When you are learning some good reading habits, you should also unlearn certain bad reading habits. Over a long period of time you might have acquired the habit of reading and re-reading the same set of words in the passage thinking that it helps you understand the passage better. This approach eats up your precious time in the exams. Unless you make a conscious attempt to unlearn it, you will not be able to perform at your best. You should also keep in mind the fact that the examiner is not going to ask you each and every detail in the passage which implies that you need not have to read it "THOROUGHLY" to answer the questions in this section. So, even if you do not understand a part of the passage, you should continue reading the passage and not stop there or go back to read the sentence again.

While you should certainly adopt ways that improve your speed and reduce the "blocks" for improving your speed, regular reading practice still remains the most important factor in improving your performance in reading comprehension.

For exams like CAT, which emphasise on reading comprehension skills, a reading speed of about 350 to 400 words per minute is required. For most of you, the reading speed will be in the range of 120-150 words per minute. It takes regular practice of three to four months for an appreciable increase in your reading speed.

PRACTICE PASSAGES

In the following pages, thirty passages are given which you can use for your basic reading practice. These will serve only as a starting point - you have to supplement the passages given here with passages selected from various sources as mentioned in the earlier part of the chapter. You can use one or two passages (out of the 30 passages) per day for your practice.

Of the thirty passages, passages 1 to 10 are printed in three columns per page so that the width of each column is small enough to be used for practising eye-span improvement. In these passages, when you read the passage, try to read as follows: In the column that you are reading, read one complete line at a time. Try taking in all the text in that line at one time - without moving the eye across the line. Once you read one line, move your eye down to the next line and take in the text in that line again at one go without any horizontal movement of the eye. This way, you will be able to improve your eye-span by training your eye to get used to the width of the column. In addition to these ten passages, you should also use newspaper columns for this practice to improve your eye-span. Get enough practice to ensure that you are able to read the text in one line at one time.

Passages 11 to 20 are printed in two columns. The column width here is more than in passages 1 to 10. You should train your eye now for this column width - the same way you did with the earlier set of passages. Once you are sure that you are comfortable in reading one line at a time, i.e. your eye-span has improved to enable you take in the entire text in one line without any horizontal movement of the eye, then you can move to the last ten passages.

Passages 21 to 30 are printed in full-page width. Now, train the eye to take in the text in each line in two installments (because your eye is already used to half the width of the line).

All through the period when you are practising the above, you should supplement the practice with regular reading of newspapers, magazines and books.

In the last section of the book, practice tests are given which you should take after your basic reading practice mentioned in earlier sections is over. You should take each test in the allotted time. While taking the test, you should keep in mind all the points discussed in the test-taking sessions for Reading Comprehension.

Note that the last two exercises in this SM are modelled on the recent years' CAT exam pattern.

PRACTICE PASSAGE – 1

Last year, a friend of Greta's died tragically young. He was a pillar of the community, and Greta was honored to learn that he had wanted her to play the oboe at his memorial service, which would be attended by hundreds of people. Greta has performed in countless concerts, with audiences just as large, but the thought of flubbing up at a ceremony honoring the life of a great man was absolutely nerve-wracking. The problem was compounded by the fact that Greta herself was in mourning for her friend.

In the end, she was able to summon up the courage to play beautifully, and received dozens of compliments after the service. One friend, a professional musician, asked about how she handled her nerves. She honestly told him that she didn't know: she just started playing and hoped for the best. He said that for high-pressure performances like that, he always used a beta-blocker -- a prescription medication for clinical anxiety. Indeed, the International Herald Tribune reports that using such drugs is becoming routine for musicians, whose reputation can be shattered by an ill-timed crack or bobble.

I certainly wouldn't have faulted Greta if she had sought out a prescription for such a drug when she learned of her friend's request in the weeks before he died. It's an exceptional situation, and if a little medication could help, wouldn't it be better for all concerned? But if musicians routinely depend on such drugs for everyday performances, then where does it stop? Should we prescribe the drugs for students? At what age should they start?

This is just one facet of a broad debate opened up by a recent commentary in Nature magazine. Barbara Sahakian and Sharon Morein-Zamir argue that there are certain situations where cognitive enhancing drugs are perfectly reasonable. When someone suffers from a truly debilitating disorder, then if a drug can return some semblance of normal functioning, there's little question that it should be used, especially if there's no effective alternative treatment. But what about borderline cases?

Is it okay for a professor to take Modafinil to overcome jet-lag after returning from a conference? How about if she hasn't traveled anywhere but finds she needs to stay up until 3 a.m. grading papers? What if another professor says he needs it just to keep up with the everyday pace of his career? One person's occasional boost might become a chemical dependency.

I asked my daughter Nora what she thought of the idea of taking a pill like Ritalin to improve her mental ability and she said it sounded like cheating. But what if everyone was taking the pills and she was struggling to keep up? Would it be okay then? "That still sounds like cheating," she said.

Shelley Batts argues that if a cognitive enhancing drug with no side effects was available, the decision to use it would be a no-brainer. The problem for Shelley is, we don't yet know the full impact of these drugs, especially in the long term. I'm personally a big fan of caffeine, but as I've gotten older I've found that it gives me an upset stomach. So much for "no side effects."

Janet Stemwedel is uncomfortable with the idea of using cognitive-enhancing drugs at all, and even feels guilty about her use of caffeine.

John Wilkins argues that these drugs may not be effective in the long term.

But what if they were? What if we really could improve our cognitive function without deleterious physical or cognitive side effects? What if we could work 18 or 20 hours a day, seven days a week? Think of what we could accomplish! One person could do the work of two, or even three people, when you count weekends. If the drug had no side effects. But at some point, doesn't the primary effect of the drug itself become a side effect? If a person's life becomes all work, with no down time, no relaxation, ever, I'm not sure that's a life worth living. If that happened to me, I'm not sure I'd even be the same person I was before I started taking the drug.

Ultimately, even if we could create drugs that were truly side-effect free, I think we'd still have to regulate them in order to protect us from ourselves. Just as the regulation of steroids in athletics is done mainly to protect the athletes, so even "perfect" cognitive enhancers will need to be restricted in their use, lest we become of planet of work-immersed zombies.

No. of words : 752 Time taken to read : ____ minutes Reading speed : ____ w.p.m

Summary of the passage:

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Express the main idea of the passage in one sentence: _____

PRACTICE PASSAGE – 2

I am not in the habit of reading classic horror stories but this weekend I picked up John Kenneth Galbraith's 1955 book. Unfortunately it is non-fiction. And even more unfortunately it is selling well in the university bookstore. Galbraith is gone but his book lives on. In a new Foreword written in the 1990s he noted that it has never gone out of print since its publication more than 50 years ago, mainly because every decade or two we have a new stock market crisis to renew interest. Since 1929 these crises have all been harbingers of recession, not depression. It isn't clear if this one will be different or another 1929 disaster. Reading the book, however, is frightening because the parallels are eerily similar, from the incessant incantations of convenient wisdom (the fundamentals are sound, the big players are stabilizing things, the market is poised for rebound after being oversold, etc., etc.) to the actual behavior of the market.

The free fall of Black Thursday (October 24, 1929) was presaged by a number of other sell-offs and in fact the market rebounded and finished off only a bit below its start. The panic was over by noon that day as the "organized support" of a cabal of Wall Street bankers moved in to support prices. They held steady on the Friday after Black Thursday and were off only a little on Saturday (a normal but shorter trading day at that time). Then on Monday the real disaster started to unfold. Free fall and no closing rally. On Tuesday, the worst day in Wall Street history (until now). Then a brief respite on Wednesday, with a gain. But for the next two and half years, the direction was generally and inexorably down as the country and the world went over the cliff into the abyss.

Will this be averted this time around? Possibly. Possibly not. Those at the helm don't seem to have a firm grasp of the situation, which is not surprising since people are still arguing over what caused the 1929 crash. Those with their hands on the wheel in the US seem more than usually clueless. They've wasted three weeks to staunch the bleeding that many predicted wouldn't work. The obvious approach -- essentially to nationalize the banks -- was not taken for ideological reasons. Europe, led by the UK, has now taken the lead. If we are lucky, the US will be a tardy follower.

There's no doubt there are a lot of smart people involved in trying to figure this out. But the system is extremely complex. We have a hard time predicting the weather and the arguments over climate modeling are well known. But it turns out that scientists are in agreement that we have better models for climate than we have financial models:

With Wall Street's vaunted financial models looking shaky, could other models of complex systems -- say, the climate models that underpin our understanding of global warming -- have similar faults?
In two words, say scientists and financial engineers: not really. It turns out that it's much harder to model human sentiment, the basis of value, than particle interaction.

"It's the physics. The issue is that economic models aren't based on any underlying physically observed facts. They're based on people's feelings," said Gavin Schmidt, a climate modeler at Goddard Institute for Space Studies. "We're not having a climate crisis because there's a lack of confidence in water vapor."

These are the models that the technicians use to price the derivatives and other complicated financial instruments that are part of this unholy global mess. But we are much farther ahead with climate models which have a sound scientific basis:

"Climate models are very complex but you more or less understand the basic physics or chemistry," said [Emanuel Derman, a physicist turned financial engineer, who teaches at Columbia University]. "[Finance papers] look like physics but a lot of the similarity is syntactic more than semantic."

For example, stock options are priced with the Black-Scholes model, which says that stock price movement can be seen to move like the random movements of particles suspended in a liquid, i.e. Brownian motion. But stock price models differ from particle models because they describe the aggregate actions of people.

"When you put out a weather forecast, the weather doesn't read your forecast and get affected by it," Derman said.

In other words, Derman argues, in a soon-to-be released essay, the primary difference between physical and financial models is that the accuracy of financial models could be fundamentally unknowable. No test can really validate how they work.

"The gap between a successful financial model and the correct value is nearly indefinable," he writes.

Functionally, the ability to generate returns determines how useful a financial model is.

"What then is the test of the [Black-Scholes] model?" asked Jeremy Bernstein in a prescient 2004 Commentary article. "Presumably, it is that if one uses it as a guide to buy these options and, as a result, goes broke, one will be inclined to re-examine the assumptions. Presumably."

I guess we aren't presuming this any longer. Or shouldn't be. But who knows? The same people who are climate change deniers because they don't believe the science-based models are often the same people who were willing to put financial policy in the back seat while much worse models were running the autopilot.

Now we can have the best of both worlds: climate change and global depression. Lucky us.

No. of words : 916 Time taken to read : _____ minutes Reading speed : _____ w.p.m

Summary of the passage:

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Express the main idea of the passage in one sentence: _____

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PRACTICE PASSAGE – 3

To me, few things are more annoying than someone who nitpicks about grammar. Grammar is important, to be sure, but how much does it really matter if your sentences are grammatically "correct," as long as your message is communicated clearly?

Michael Bach recently emailed me lamenting that often reviewers comment that "the English could be improved" in his papers. That comment could be made about at least 99 percent of all papers published, but what does it help? If a reviewer can't point to a specific instance where the language is unclear, why make the observation in the first place?

But even when comments are specific, they're often not useful at all. Case in point: "data." Is "data" a singular or a plural noun? Purists say that *data* is the plural of *datum*, but Mike Kellerman questions that notion: There are a couple of problems with the "data is the plural of datum" story. (These have been discussed widely on the web, and I'm drawing freely on those discussions). First, it is not quite right even in Latin to say that "data" is the plural of the singular count noun "datum"; both are conjugations of the verb dare, to give. Second, in English, we hardly ever refer to one piece of data as a datum; at least in political science it is an observation, a case, or perhaps a data point. When the word datum is used, it usually has a specialized meaning and takes the plural form "datums."

But here's the killer example:

The bigger problem, from my perspective, is that fully adhering to "data" as a plural count noun forces you into constructions like "How many data are enough?" instead of "How much data is enough?" The first of these, "How many data are..." is correct for a plural count noun, while the second, "How much data is..." is appropriate for a mass noun such as "gold" or "water." The second sentence sounds much better to me. It also wins on a Google Scholar search by a margin of 10 to 1 (2120 to 198). So even though people claim that *data* is plural, they actually use it as a singular "mass noun." What's "correct"? The "proper" form, or the way the word is actually used by people? More importantly, *either* form is perfectly comprehensible to anyone reading it. It just doesn't matter.

Getting back to Michael Bach's complaint, I can certainly empathize with him. I can speak a little French and Italian, but I can't imagine putting together much more than a paragraph or two in either language, much less an entire scientific paper (Michael has published over 150!).

That's not to say that papers written by non-native speakers aren't sometimes a little more difficult to understand for us native speakers. However, generally, I find, criticizing grammar for the sake of "correctness" rather than understanding, is condescending at best and counterproductive at worst. Native English speakers are at a tremendous advantage in the scientific community today since nearly all "serious" science is published in English.

Bach has a modest proposal for native English-speaking scientists: All U.S. and U.K. scientists should pay into a fund to support English language tutoring for the remainder of the world's scientific community. It would be a small price to pay for the convenience of having everyone *else* adapt to our language.

No. of words : 559 Time taken to read : ____ minutes Reading speed : ____ w.p.m

Summary of the passage:

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Express the main idea of the passage in one sentence: _____

PRACTICE PASSAGE – 4

Eric Schwitzgebel has been doing a lot of thinking about the relationship between thinking about ethical behavior and actually behaving ethically. In his most recent post, he takes on a meta-analysis claiming that religious belief correlates negatively with criminal activity:

I found a 2001 "meta-analysis" (Baier & Wright) of the literature that shows all the usual blindnesses of meta-analyses. Oh, you don't know what a meta-analysis is? As usually practised, it's a way of doing math instead of thinking. First, you find all the published experiments pertinent to Hypothesis X (e.g., "religious people commit fewer crimes"). Then you combine the data using (depending on your taste) either simplistic or suspiciously fancy (and hidden-assumption-ridden) statistical tools. Finally -- voila! -- you announce the real size of the effect. So, for example, Baier and Wright find that the "median effect size" of religion on criminality is r = -.11!

Schwitzgebel, as you might expect, doesn't buy Baier & Wright's conclusion. Not having read the study, I can't really comment on it. I'm also not an expert on meta-analysis, but it does strike me that a few of the points Schwitzgebel makes about meta-analysis might not be as solid as he suggests. I'll discuss those below.

First, Schwitzgebel cites Robert Rosenthal's estimate that for every journal article published, 5 go unpublished because they didn't get clear results. Now, if you look at the rejection rates (PDF) for APA journals (they averaged 86 percent in 2005), that sounds like a conservative estimate. However, getting rejected from one journal doesn't mean an article is unpublished. Usually a scholar just resubmits to the next journal on her list, so arguably the percentage of studies that actually get published is much higher (another way of putting this is that one study could count for several rejections but just one publication).

Further, a study might go unpublished not because it gets null results, but because it replicates previous work. So Schwitzgebel's assumption that all those unpublished correlations should get averaged in as zero is also suspect. I would also submit that larger studies are very unlikely to not find publishers, no matter whether they have a null result. If you conduct a survey of thousands of people, *someone's* going to publish it even if you've found nothing, just so that data set is out there. Let's suppose in a given period that 100 studies are undertaken. Four of those studies have 5000 participants, sixteen have 500 participants, and the rest have 100 participants. In all likelihood, all four of the large studies will be published. Somewhat fewer than half the medium studies will be published, and a smaller number of the small studies will be published. If we believe Rosenthal's estimate that only 20 percent of all studies are published, then perhaps ten of these smaller studies will make it through peer review. That means that of the 36,000 participants studied, over 24,000 are represented in published journal articles. A meta-analysis of this data, then, would consider over two-thirds of the research participants in that area of study -- far more than Rosenthal's gloomy 20 percent estimate (however, in fields such as cognitive psychology where participant pools are nearly universally small, then Rosenthal's estimate would still apply).

Another critique Schwitzgebel levels at the Baier & Wright study is also suspect: He says that "A 'median effect size' of religion on criminality of r = -.11 means that half the published studies found a correlation close to zero." Actually it doesn't mean that. It could mean that some studies found a positive correlation. It could mean that all the studies are clustered right around the r = -.11 level. But even assuming that neatly half the studies found a negative correlation larger than r = -.11, and the other half were exactly null, that's still a significant correlation for the sample size we're talking about. Just because some religious people commit crimes doesn't mean that overall religion doesn't have some negative effect on criminal behavior.

The most important critique, however, is quite valid: we're talking about correlation here, not causation. This result doesn't suggest that joining the church will "cure" criminals or prevent future criminal behavior. At best it says that people who join churches also tend -- in a very small way -- to be people who don't commit crimes.

No. of words : 722 ***Time taken to read : ____ minutes*** ***Reading speed : ____ w.p.m***

Summary of the passage:

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Express the main idea of the passage in one sentence: _____

PRACTICE PASSAGE – 5

There's been a great deal of research on appetite and satiation, both on animals and humans. For humans, of course, the motivation is often focused on how we can lose weight. Almost everyone believes they would look better if they could just lose a few pounds. Most of the research has focused on the taste of food and the physical sensation of fullness, and the results—as you might have suspected—have been inconclusive.

There is some evidence that if you leave the remnants of a meal around (used candy wrappers, for example), then people will eat less than if the evidence of the food is discarded immediately. A study on a single amnesic patient ("H.M.") mentions that he ate a second full dinner only one minute after finishing the first one.

Inspired by this evidence, a team of researchers led by Paul Rozin suspected that perhaps memory is the key (Paul Rozin and Sara Dow, University of Pennsylvania; Morris Moscovitch, University of Toronto; and Suparna Rajaram, SUNY-Stony Brook, "What Causes Humans to Begin and End a Meal? A Role for Memory for What Has Been Eaten, As Evidenced by a Study of Multiple Meal Eating in Amnesic Patients," *Psychological Science,* 1998).

The experiment they devised to explore the role of memory was simple. They found two severely amnesic patients who were otherwise normal. "R.H." was an intelligent man who managed to live alone with his condition for 20 years. Yet without reminders, he could not remember any new information for more than about a minute. After over 12 hours with the experimenters, he was unable to recognize them. "B.R." was a man of average intelligence who was hospitalized by his amnesia after it occurred in 1992. Even after spending a year in the hospital, he was completely unfamiliar with its environment, and like R.H., could not remember the experimenters after working with them for many hours.

The experimenters began the session as if they were merely interviewing the patient. Then, without any fanfare, they presented a meal that they knew the patient liked and said "here's lunch." B.R. ate the entire meal and R.H. consumed part of his. After the meal, patients were asked to rate their hunger level on a scale of 1 (extremely full) to 9 (extremely hungry). Ten minutes later, each patient was offered another meal, and each patient proceeded to eat exactly as before. B.R. finally rejected his third meal, but R.H. consumed that as well. There were no differences in R.H.'s hunger ratings for the duration of the experiment, which was repeated on three separate occasions. While B.R., a small man weighing only 120 pounds, did report becoming slightly more full, he did not reject the second meal, and on two occasions he began his third meal before being stopped by the experimenter.

For comparison, the experiment was repeated with two people who were not amnesic. Not surprisingly, both participants reported being completely full after one meal, and rejected offers for a second meal.
The obvious conclusion is that memory of what we've eaten actually accounts for a significant portion of our hunger. Rather than being solely a physical sensation, being "full" is largely a matter of recalling that we've eaten a meal appropriate for the occasion. Rozin et al. point out that most people are very reluctant to eat dinner foods like spaghetti or lamb chops for breakfast. The reason we feel full after meals may be similar: it's what we expect to happen.

One potential objection to the study's conclusion is that the same condition that led to the three patients' amnesia may have also impaired their ability to detect fullness. Rozin and his colleagues reason that this is highly unlikely, because each patient had a different condition, each of which affected slightly different areas of the brain. The only brain area which had suffered damage in all patients was the amygdala, which has been shown in animals not to be related to hunger/satiety.

If hunger and satiety are predominantly social phenomena, then this explains why some of the tricks dieters use are sometimes successful. For example, a common piece of dieting advice is to use small plates to "fool" yourself into believing you've eaten a lot. Given the results of Rozin et al.'s study, it's easy to see why this strategy could work.

No. of words : 721 Time taken to read : ____ minutes Reading speed : ____ w.p.m

Summary of the passage:

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Express the main idea of the passage in one sentence: _____

PRACTICE PASSAGE – 6

In a CBS News poll of 1,048 randomly chosen adults surveyed nationwide, more than half (53%) of the respondents said that creativity is something a person has to be born with. Approximately one third (35%) said creativity is something that can be taught. The views were nearly the same across all demographic groups. Surprisingly, this poll reveals that more people think that creativity is innate but, with practice, the creativity muscle can be built.

Author and creativity expert Daniel Pink in the CBS News website article, "The Wellspring of American Creativity," believes that all people have at least some creative potential simply because they are human. He explains that he doesn't think everybody is a budding Picasso, Edison or Toni Morrison, but human beings are defined by their ability to create.

Pink also says that creativity is the ability to give the world something it didn't know it was missing. He gives the example of the iPod and how tens of millions of people who now carry one didn't know that they were missing it eight years ago. He credits America with being a nurturing country where failure is less stigmatized than other countries, giving way for people to take more creative risks.

According to Wikipedia, "Creativity is a mental process involving the discovery of new ideas or concepts, or new associations of the existing ideas or concepts, fueled by the process of either conscious or unconscious insight." In other words, people birth ideas from their thoughts and then commit to moving these ideas into reality. This happens to all people so, in essence, anyone can be creative. As Daniel Pink says not everyone can be a famous artist or inventor, but if people don't practise creativity then how do they know if they aren't a genius in some area. Also, a person doesn't have to be a web designer or an artist to be creative. A doctor can be creative. An engineer can be creative. This goes without saying, but it's important to note because creativity can be brought into any job or scenario and the results can be extraordinary.

Help the Creative Process by Building the Muscle

Routine and habit squash creative ideas and thoughts and can stifle a person. Once a person becomes stifled, the mind is not challenged. When people think creatively, new realms of possibility open up where ideas and thoughts are born. But to keep creativity in the forefront it must be practised. Here are some ways to practice creativity and get the juices flowing:

- **Exercise the creative mind** – Take photos, draw pictures, have an unusual conversation, take a different route, try a new recipe - whatever it is approach it with a new perspective and zest, this alone can unleash creativity.
- **Read books other than the usual** – People tend to stick with what they like. If a person only reads non-fiction books then he or she can be missing out on other inspiring books.
- **Design an environment conducive to creativity** – Create an environment where creativity can flourish. People are most inspired when they surround themselves with the things they love such as photographs, artwork, decorations, certain color schemes, and so on.
- **Use mind maps** – Mind mapping is a creative tool that visually connects things, ideas, and facts, just as the mind works. They can be used for creative problem-solving, decision-making, project planning, and brainstorming ideas. Here is a sample of what one looks like from the website, Livethesolution.com.
- **Write, write and then write some more** – Writing can uncover ideas buried in the subconscious so write about anything, just write, and do it daily.
- **Commune with nature** – Taking a walk outside in the woods, by the water, or simply around the neighborhood can clear the mind and lay the groundwork for a creative endeavor.
- **Think out of the box** - To children, creativity comes naturally. They act out plays, create shows and play dress-up. Think out of the box and do something out of the ordinary everyday.
- **Explore your fantasies and get out of the comfort zone** – If there is something that a person thinks about doing such as going up in a hot air balloon, deep sea diving or signing up for a cooking class, perhaps it's time to try it out. When people take themselves out of their comfort zones and engage in their fantasies, not letting fear stop them, they grow, expand, and life opens up.

Choose the Creative Life by Imagining

When Michelangelo described how his Statue of David was created he said, "I saw the angel in the marble and carved until I set him free." Michelangelo, through his mental imagery, created a piece of genius. visualization or imagination is the source for all that is created, so the more people visualize something they want to create, the more likely it will get created. Henry David Thoreau said, "The world is but a canvas to the imagination." To live a creative life, start to imagine things such as what is desired in life, what life will look like when goals and dreams are reached, and how it will feel. Visualizing has a powerful effect on the subconscious and will move desires into reality.

"A rock pile ceases to be a rock pile the moment a single man contemplates it, bearing within him the image of a cathedral." ~Antoine de Saint-Exupery.

No. of words : 898 Time taken to read : ____ minutes Reading speed : ____ w.p.m

Summary of the passage:

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Express the main idea of the passage in one sentence: _____

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PRACTICE PASSAGE – 7

Some time ago I received a call from a colleague who asked if I would be the referee on the grading of an examination question. He was about to give a student a zero for his answer to a physics question, while the student claimed he should receive a perfect score and would if the system were not set up against the student. The instructor and the student agreed to an impartial arbiter, and I was selected.

I went to my colleague's office and read the examination question: 'Show how it is possible to determine the height of a tall building with the aid of a barometer.'

The student had answered: 'Take the barometer to the top of the building, attach a long rope to it, lower the barometer to the street, and then bring it up, measuring the length of rope. The length of the rope is the height of the building.'

I pointed out that the student really had a strong case for full credit, since he had answered the question completely and correctly. On the other hand, if full credit were given, it could well contribute to a high grade for the student in his physics course. A high grade is supposed to certify competence in physics, but the answer did not confirm this. I suggested that the student have another try at answering the question. I was not surprised that my colleague agreed, but I was surprised that the student did.

I gave the student six minutes to answer the question, with the warning that his answer should show some knowledge of physics. At the end of five minutes, he had not written anything. I asked if he wished to give up, but he said no. He had many answers to the problem; he was just thinking of the best one. I excused myself for interrupting him, and asked him to please go on. In the next minute he dashed off his answer which read:
'Take the barometer to the top of the building and lean over the edge of the roof. Drop the barometer, timing its fall with a stopwatch. Then, using the formula S = at2/2, calculate the height of the building.'

At this point, I asked my colleague if he would give up. He conceded, and I gave the student almost full credit.

On leaving my colleague's office, I recalled that the student had said he had other answers to the problem so I asked him what they were. 'Oh, yes' said the student. 'There are many ways of getting the height of a tall building with the aid of a barometer. For example, you could take the barometer out on a sunny day and measure the height of the barometer, the length of its shadow, and the length of the shadow of the building, and by the use of simple proportion, determine the height of the building.'

'Fine' I said. 'And the others?'
'Yes' said the student. 'There is a very basic measurement method that you will like. In this method, you take the barometer and begin to walk up the stairs. As you climb the stairs, you mark off the length of the barometer along the wall. You then count the number of marks, and this will give the height of the building in barometer units. A very direct method.

'Of course, if you want a more sophisticated method, you can tie the barometer to the end of a string, swing it as a pendulum, and determine the value of 'g' at the street level and at the top of the building. From the difference between the two values of 'g', the height of the building can, in principle, be calculated.

'Finally,' he concluded 'there are many other ways of solving the problem. Probably the best' he said 'is to take the barometer to the basement and knock on the superintendent's door. When the superintendent answers, you speak to him as follows: "Mr Superintendent, here I have a fine barometer. If you will tell me the height of this building, I will give you this barometer."'

At this point, I asked the student if he really did not know the conventional answer to this question. He admitted that he did, but said that he was fed up with high school and college instructors trying to teach him how to think, to use the 'scientific method', and to explore the deep inner logic of the subject in a pedantic way, as is often done in the new mathematics, rather than teaching him the structure of the subject. With this in mind, he decided to revive scholasticism as an academic lark to challenge the Sputnik-panicked classrooms of America.

No. of words : 785 Time taken to read : ____ minutes Reading speed : ____ w.p.m

Summary of the passage:

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Express the main idea of the passage in one sentence: _____

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PRACTICE PASSAGE – 8

The Oxford philosopher J.L. Austin once observed in a lecture that in English a double negative implied a positive meaning, whereas no language had been found in which a double positive implied a negative meaning. Another philosopher who was in the audience that day made a very simple counterclaim just by saying "yeah, yeah".

Over time words and expressions change in sound, in spelling and in use, sometimes at a snail's pace and sometimes almost overnight – as some observers have pointed out with reference to 'cool'. A change in meaning may follow a comprehensible if always tortuous path (from the coarse cloth, or bure on the tables of medieval clerks to the modern bureaucrat, for example), or it may switch at a stroke into its opposite. *Rien*, the French word for "nothing", for example, is derived from the Latin *rem*, which means "something" (in the accusative case). By what path can a word get from meaning "something" to meaning "nothing"? It's like asking how anything can be "hot" and "cool" at the same time. Obviously, they can be – especially if you don't even know whether the jazz throbbing through the speakers is hot, cool, or just loud.

In Chekhov's short story Agafya two rather disreputable fellows offer a girl a glass of vodka. She replies with a colloquial expression – *Выдумал!* – that means something like "Where did you get the idea [that I drink vodka]?" or "What put that idea into your head?" or "Don't insult me!" A thoughtful professional American translator of Chekhov expresses the force of the girl's response by "Oh! Please!" To my British ear, however, "Oh! Please!" is not a negative but an extremely positive expression. I can hear the young woman clapping her hands and springing to her feet to say in a squeaky treble, ooopleeeez! But for my American colleague, "oh please" is pronounced with an intercalated aspirated schwa between the first two consonants – p-h-er-leez – and for her it is a put-down, a wrist-slap, a no-no. The English word "please" means "yes" – and it means "no".

It's not enough to say that's just a difference between British and American English. Speakers of British English know that "Oh please" if said with the extra half-syllable between the p and l is a negative expression, just as Americans know that "Oh please" said with a rising intonation is a positive. When written down, the words oh please mean anything you want them to mean in the imaginary linguistic context your mind supplies. Same in French, as a matter of fact: *merci* means "thank you" and it also means "no thank you", depending on how you say it, in what circumstances, and to whom.

Most philosophers do not like expressions that mean one thing and its opposite. Aristotle came up with the law of excluded middle to get rid of them: "For any proposition, either that proposition is true, or its negation is." Yet, ordinary language users are addicted to using and inventing expressions that mean one thing or its opposite depending on who's listening. Taboo words are almost always capable of reversing their meaning – they can be used for purposes that are diametrically opposed. Shit! may express strong disapproval in many circumstances, but among the right crowd it may equally well be used by the same speaker to express delight and surprise.

"Cool" probably didn't come to mean stylish, swish, glamorous or desirable by the same kind of forking path that makes please and shit into bipolar expressions. As an antonym of "hot" it probably had the power to mean "not angry", "not hurried" and all sorts of more desirable attributes than those that are normally associated with heat. It may well be that the first "cool" was *nonchaloir*, an Old French expression meaning "non-heat" (from the obsolete verb *chaloir*, "to be hot"). Given the muddled history of words moving from French to English and back again, "cool" – as in a "cool customer", "as cool as a cucumber" – might have started out as a translation of nonchalant into the local lingo. As we British do admire restraint in outward behaviour, it's no surprise that a nonchalant *gentilhomme* – a real cool gent – was one to be imitated and admired, and that coolness became associated with stylish and fashionable things.

Of course this is all speculation, as are most forms of word history. But just as languages constantly change and switch things around, so too are they surprisingly conservative, and what often seems most modern and trendy turns out to be a reminiscence or a revival of some forgotten form in the language of yore. It's possible that the present vast spread of "cool" in our own language (and far beyond, not just back into French *baba-cool*, but into Chinese 酷 *k17* as well) wouldn't have arisen without cool jazz; but it's just as likely that had jazz never been invented the idea that there's something stylish about not being hot (bothered, angry, puce17) would have given "cool" many of the meanings it now has.

No. of words : 837 Time taken to read : ____ minutes Reading speed : ____ w.p.m

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Express the main idea of the passage in one sentence: _____

PRACTICE PASSAGE – 9

"Dying is easy. Parking is hard." Art Buchwald's little witticism nicely captured his chosen path to a good death: mocking it to the very end. There is great courage and dignity in that, which is why Buchwald's extended goodbye (he died on Jan. 17) earned him such appreciation and admiration. But dying well is also a matter of luck. By unexpectedly living almost a full year after refusing dialysis for kidney failure, Buchwald won himself time to taunt the scythe. Timing is everything. When former Congressman—and distinguished priest and liberal luminary—Robert Drinan died earlier this year, the Washington Post published a special appreciation. It ran together with a tribute to another notable who died just one day later: Barbaro. The horse got top billing. And does anyone remember when Mother Teresa died? The greatest saint of our time died on the frenzied eve of the funeral of the greatest diva of our time, Princess Di. In the popular mind, celebrity trumps virtue every time. And consider Russian composer Sergei Prokofiev, tormented in life by Stalin, his patron and jailer. Prokofiev had the extraordinary bad luck of dying on the same day as the great man, "ensconcing him forever in the tyrant's shadow," wrote critic Sarah Kaufman of the Washington Post, "where he remains branded as a compromised artist."

We should all hope to die well. By that, I don't mean in the classic Greek sense of dying heroically, as in battle. I'm suggesting a much lower standard: just not dying badly. At a minimum, not dying comically—death by banana peel or pratfall or (my favorite, I confess) onstage, like the actor Harold Norman, killed in 1947 during an especially energetic sword fight in the last scene of Macbeth.

There is also the particularly unwelcome death that not just ends a life but also undoes it, indeed steals it. The way Kitty Genovese's was stolen. On March 13, 1964, she was repeatedly stabbed for 35 minutes in the street and in the foyer of her apartment building in Queens, N.Y. Many neighbors heard her scream. Not one helped. When the police eventually arrived, it was much too late. Her death became a sensation, her name a metaphor for urban alienation, her last hour an indictment of the pitiless American city.

I've always been struck by the double injustice of her murder. Not only did the killer cut short her life amid immense terror and suffering, but he defined it. He—a stranger, an intruder—gave her a perverse immortality of a kind she never sought, never expected, never consented to. She surely thought that in her 28 years she had been building a life of joys and loves, struggle and achievement, friendship and fellowship. That and everything else she built her life into were simply swallowed up by the notoriety of her death, a notoriety unchosen and unbidden.

That kind of double death can also result from an act of God. Disease, for example, can not just end your life; if it is exotic and dramatic enough, it can steal your identity as well. Without being consulted, you become an eponym. At least baseball great Lou Gehrig had the time and talent to be remembered for things other than what was generally known as ALS (amyotrophic lateral sclerosis). Ryan White, a teenager when he died in the early years of the AIDS epidemic, did not. He was hastily conscripted as poster boy for the Ryan White Comprehensive AIDS Resource Emergency (CARE) Act—defined by his dying, much like poor Megan Kanka, the little girl murdered by a sex offender in New Jersey, who lives today as Megan's Law.

No one grasps more greedily—and cruelly—the need for agency in death as does the greatest moral monster of our time: the suicide bomber. By choosing not only the time and place but the blood-soaked story that will accompany his death, he seeks to transcend and redeem an otherwise meaningless life. One day you are the alienated and insignificant Mohamed Atta; the next day, Sept. 11, 2001, you join the annals of infamy with all the glory that brings in the darker precincts of humanity. It is the ultimate perversion of the "good death," done for the worst of motives—self-creation through the annihilation of others. People often denounce such suicide attacks as "senseless." On the contrary, they make all too much malevolent sense. There is great power in owning your own death—and even greater power in forever dispossessing your infidel victims of theirs.

No. of words : 756 Time taken to read : ____ minutes Reading speed : ____ w.p.m

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Express the main idea of the passage in one sentence: _____

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PRACTICE PASSAGE – 10

Pablo Picasso has left behind not only a void in the art world, but also paintings that are a human legacy. His death revealed the true patron of art that he was, with the discovery of collections of famous contemporaries like Matisse. His life span from 1881 to 1973 has been the most studied and appreciated. This Spanish painter and sculptor was one of the most revered artists of the 20th-century. He not only co-founded the Cubist Movement, but went on to use the versatile dimension to depict German warfare during the Spanish Civil War.

Pablo Picasso: Birth of a Genius

Pablo Picasso was born in Málaga, Spain. He was born on October 25, 1881 and baptized as Pablo Diego José Francisco de Paula Juan Nepomuceno María de los Remedios Crispiniano de la Santísima Trinidad Ruiz y Picasso. In fact, his name is the product of worship and honor, to saints and relatives. He was the first child of Don José Ruiz and María Picasso López. He grew up in a middle-class family. His father was a naturalistic painter and a professor of art.

From an early age, Picasso displayed a passion for drawing. From the tender age of seven, Picasso began receiving formal training from his father. He learned oil painting and figure drawing. He was taught how to draw the human body from casts made of plaster and various live models. The family starved when his father took the decision to move to La Coruña in 1891, to join the School of Fine Arts. Picasso's father is believed to have vowed never to indulge in painting again, when he saw a painting of his son, an unfinished sketch of a pigeon. The precision was just too much to ignore.

With the death of his seven-year old sister in 1895, the family relocated to Barcelona. Picasso gave the entrance exam at the School of Fine Arts for the advanced class and impressed the jury. He was just 13! Ruiz and his son argued frequently on sketches and drawings. The result was a refinement that earned Picasso entry into the Royal Academy, Madrid. However, instead of making the most of formal instruction, the young lad was more impressed by paintings by Diego Velázquez and Francisco Zurbarán. His own art borrowed the elegance of elongated limbs, capturing color and the mystical.

Pablo Picasso: The Artist

Picasso would sleep during the day and work at night, despite poverty and desperation. In Madrid, he co-founded an art magazine Arte Joven with his anarchist pal Francisco de Asís Soler. While Soler took care of the articles; Picasso illustrated with political cartoons. In due time, Picasso was a major contributor to the American art collectors Leo and Gertrude Stein. Picasso painted portraits and other themes for patronized exhibitions. Among his friends were André Breton, Guillaume Apollinaire the poet and author Alfred Jarry. When Picasso met Fernande Olivier, his mistress for a while, he made her his theme in many of his 'Rose' paintings. However, she could not hold on to him for long and he moved into a relationship with Marcelle Humbert. He would refer to her as Eva Gouel and openly declared his love for her in the Cubist works. Her premature death due to illness, at 30, left Picasso devastated. Picasso married twice and fathered four children. He had many affairs subsequently and each of the women were immortalized in his art.

Picasso also enjoyed a film career. He made a cameo appearance in a Jean Cocteau experiment. Picasso always played 'Picasso the artist'. In 1955, he was part of Le Mystère Picasso, a film directed by Henri-Georges Clouzot. Picasso remained neutral in World War I. He expressed anger at the fascists through his paintings. He joined the French Communist Party in 1944. He even received the Lenin Peace Prize in 1950 from the Soviet government. He remained loyal to the Communist Party to the end. He did not refrain from expressing concern over U.N. intervention in the Korean Civil War. Picasso's work is best understood in 'periods'. These included 'Blue' from 1901-1904, 'Rose' from 1905-1907, 'African' 1908-1909, 'Analytic Cubism' 1909-1912, and 'Synthetic Cubism' 1912-1919. Pablo Picasso died in France, in 1973.

No. of words : 698 Time taken to read : ____ minutes Reading speed : ____ w.p.m

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Express the main idea of the passage in one sentence: _____

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PRACTICE PASSAGE – 11

From the moment man opens his eyes to this world a great order surrounds him. He needs oxygen to survive. It is interesting that the atmosphere of the planet on which he lives provides more than just the adequate amount of oxygen he needs. This way, he breathes without difficulty. For the existence of life on this planet, the existence of a source of heat is essential. In response to this need, the sun is located just at the right distance to emit just the exact amount of heat and energy man needs. Man needs nourishment to survive. Every corner of the world abounds in astonishingly diversified provisions. Likewise, man needs water. Surprisingly, three-fourths of the planet is covered with water. Man needs shelter, and in this world, there is land on which it is suitable to build and all sorts of materials to make shelters. These are only a few among billions of details making life possible on earth. In brief, man lives on a planet perfectly designed for his survival. This is certainly a planet "created for human beings".

A person's interpretation of the world rests on "acquired methods of thought." That is, he thinks in the way he has been taught, or, less kindly, the way in which he is indoctrinated. Under this misguidance, he often dismisses all the aforementioned as "trivial realities." However, if he does not side-step the matter, and start questioning the conditions making our existence possible, he will surely step out of the boundaries of habitual thinking and start to think: How does the atmosphere serve as a protective ceiling for the earth? How does each one of the billions of cells in the human body know and perform its individual tasks?

How does this extraordinary ecological balance exist on earth? A person seeking answers to these questions surely proceeds on the right path. He does not remain insensitive to things happening around him, and doesn't plead ignorance about the extraordinary nature of the world. A person who asks questions, who reflects on and gives answers to these questions will realize that on every inch of the planet, a plan and an order reigns: How did the flawless order in the whole universe come into being?

Who provided the delicate balances in the world?

How did living beings, incredibly diversified in nature, emerge?

Keeping oneself occupied with relentless research to answer these questions results in a clear awareness that everything in the universe, its order, each living being and structure is a component of a plan, a product of design. Every detail, the excellent structure of an insect's wing, the system enabling a tree to carry tons of water to its topmost branches, the order of planets, and the ratio of gases in the atmosphere, are all unique examples of perfection. In every detail of the infinitely varied world, man finds his Creator. God, the owner of everything in the whole universe, introduces Himself to man through the flawless design of His creation. Everything surrounding us, the birds in flight, our beating hearts, the birth of a child or the existence of the sun in the sky, manifest the power of God and His creation. And what man must do is to understand this fact. These purposes owe their existence to the fact that everything has been created. An intelligent person notices that plan, design and wisdom exist in every detail of the infinitely varied world. This draws him to recognition of the Creator. So you never plead ignorance that all living beings, living or non-living, show the existence and greatness of God. Look at things around you and strive to show appreciation in the best manner for the eternal greatness of God

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Express the main idea of the passage in one sentence: _____

PRACTICE PASSAGE – 12

In the early 1960s, Ad Reinhardt set out to make the "last paintings." Eliminating image and gesture, he produced a series of 5-foot-square works in subtly differentiated shades of black. One of these canvases, Black Painting (1960-66), recently became the focus of a conservation effort aimed at developing new restoration and preservation methods specifically for minimalist and monochromatic paintings--a notoriously fragile and problematic category of works.

An unusual project with potentially wide-ranging applications, the endeavor is a collaboration of the Guggenheim Museum, the Museum of Modern Art and the art insurance company AXA Nordstern. Those involved recently discussed the plan at a press conference at the Guggenheim Museum in New York. The project is the brainchild of Dietrich van Frank, CEO of AXA, whose client, a private collector, had loaned the Reinhardt for an exhibition in the mid-1990s. During handling, something fell onto the canvas, resulting in several scratches and a number of deformations of the delicate surface. Several attempts at restoration failed, and the work was deemed a total loss. (Experts say a pristine painting of its kind could bring more than $2 million at auction.) According to AXA spokesperson Christiane Fischer, the company acquired the painting for an undisclosed sum based on the agreed-value policy it had maintained with the owner. While the effectively "dead" canvas languished in storage, questions were raised about the insurability of modern and contemporary works that are made from unorthodox and sometimes ephemeral materials. While Reinhardt used conventional oil paints from a tube, he diluted the pigment with lots of turpentine; dozens of thin paint layers lent the surface a velvety, suedelike texture, that has, so far, been impossible to replicate.

The incident underscored the need to update and upgrade art conservation measures in general. AXA decided to donate the work to the Guggenheim Museum Study Collection as a laboratory specimen for research. There were no expectations of a successful restoration attached to the gift. The company also contributed $300,000 toward a new, two-year conservation program. Paired with Guggenheim senior conservator Carol Stringari, Ellen Pratt, formerly a conservation specialist at the Metropolitan Museum and MOMA, was selected to work exclusively on the Reinhardt painting. Rounding out the Reinhardt team are MOMA conservation scientist Chris McGlinchey, and James Coddingham, MOMA's expert in infrared examination of art works.

Displaying the painting at the conference, van Frank and members of the Reinhardt group pointed out the damage and discussed renovation approaches. They have divided the study into two phases, the first of which will be a thorough analysis of the surface using infrared and other techniques. The second phase entails experimental treatment of the painting, including such curious-sounding applications as laser ablation, an atmospheric atomic oxygen beam and enzymatic digestion. After the project's two-year term, results of the experiments will be published, along with news about the Reinhardt's fate. More information about the program may be found on AXA's Web site (**www.axa-artinsurance.com**).

The AXA venture coincides with a number of new conservation initiatives at U.S. institutions. The Conservation Center at New York University's Institute of Fine Arts recently announced nearly $2 million in conservation grants; several of these will go to train art conservators. Meanwhile, Harvard University Art Museums has established a Center for the Technical Study of Modern Art in cooperation with the Whitney Museum's new conservation department. Carol Mancusi-Ungaro has been named conservation director at both institutions. Formerly of the Menil Collection, Mancusi-Ungaro was responsible for the recent restoration of the paintings of the Rothko Chapel. The Whitney's new conservation endeavor was initiated with a $5-million grant from museum trustee Robert W. Wilson.

No. of words : 600 Time taken to read : ____ minutes Reading speed : ____ w.p.m

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PRACTICE PASSAGE – 13

Naomi Klein is a brilliant journalist. Her trademark is scrupulous and rigorous research assembled in a way which is compelling and accessible. It's not surprising that she has attracted such a big following as the sell out event last night at the South Bank in London showed. There is a huge amount in her book which I found riveting. It's a huge tome full of extraordinary tales - you couldn't make most of them up. But read how the CIA funded experiments at McGill university into electric

shock treatment in the fifties or how Bolivia took up neo-liberal ideas in the eighties. The scale and scope of this book is remarkable as Klein moves her 60-odd year historical narrative across the globe from Suharto's rise to power in Indonesia to the arrival of the ANC in power in South Africa. The long list of acknowledgements generously recognises the dozens of researchers across the world who have helped. As Klein would be the first to admit (and perhaps be proud to do so) this has been in many ways a team effort. The book itself proof of how shock wears off, how individuals across the globe can assemble the facts to expose the truth.

So having made all of that absolutely clear, I have also to admit that the book does itself use shock and awe. Such a massive project leaves you feeling somewhat intellectually battered. But as Klein argues in her conclusion, shock does wear off. And when it did, I found myself unconvinced by the thesis by which she has strung together her research. Some of the audience's questions last night indicated an uncertainty that the shock doctrine is quite such a novel or central instrument for neo-liberals - haven't all kinds of politicians used crises to their own advantage through history. As Klein admits it's not been the sole preserve of the right - Communism used shock. The single grand theory which can explain disparate phenomena is an old holy grail. Dorothea Casuabon's husband in Middlemarch died doing it. Klein, thankfully, has not, but the idea that the neo-liberals advanced their agenda by exploiting crises, seems a frail thread to tie everything together. There are parts which Klein almost convinced me - the use of terror in Latin America through the 70s and 80s - but there were other parts which I felt were straining at the simplicity of this central thesis such as the rise of right wing politics under Thatcher and Reagan in the 80s. Was Thatcher's success in the 80s only about using shock in the aftermath of the Falklands War?

Neo-liberalism made advances in the UK and the US without crises to exploit. There were other factors which gave the neo-liberals legitimacy, which made their ideas compelling to a sufficient number of voters. And this is the territory which Klein ignores and which I think is crucially important.

The central conundrum which seems to underlie much of Klein's book is how and why does a small elite with some outlandish ideas capture the political and economic agenda in a country to their own personal advancement; how do the masses allow them to achieve this power with little or no resistance and sometimes with support at the ballot box, when the outcome is so evidently to the detriment of their own interests?

For many on the left, this is a painful post mortem. Why did the left fail to hold onto its gains - in Chile or the UK in the 70s - and why did the left have no coherence to stop the neo-liberal agenda from bringing about unprecedented and persistently high levels of inequality? Put at its most crude, Klein is arguing for a kind of false consciousness theory - the people were so shocked into such childish, terrified states that they couldn't resist. It's a way of expiating the failure of the left to organise, mobilise and construct the political forces to stop Pinochets and Thatchers.

The main problem I have with this argument is that it underestimates how neo-liberalism chimed with and reinforced a set of human aspirations such as individualism which were shaped by scientific understanding and counter cultural movements as much as the economic ideas of the Chicago School. The work filmmaker Adam Curtis has done in this area explains some of this, most recently about an impoverished concept of freedom in his films, The Trap. To understand why the right wing politics of the 80s was so successful, we have to grasp all of this territory. We can't oversimplify or we will never find the imagination we need to develop the politics of resistance. Klein's conclusion that shock wears off is hopeful for her readers and many supporters but I think it is ultimately naive. The world which failed to stop Bush's war in Iraq is not about to recover from shock therapy; it is riddled with such a narrow understanding of its own capabilities that it has lost all hope. Accurate diagnosis is vital if we are to have any chance of eventually imagining a compelling alternative.

Having said all that, this is a good and useful book. In the end, Klein is bringing to an audience some of the histories it chooses to forget. That is massively valuable - even if the central thesis threading them together is fragile, the stories themselves are scandalous. They will inspire outrage. And that is precisely what we need.

No. of words : 909 Time taken to read : ____ minutes Reading speed : ____ w.p.m

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PRACTICE PASSAGE – 14

Towards the end of the 11th century, while tardy Europeans kept time with sundials, Su Sung of China completed his masterpiece: a water clock of great intricacy and accuracy. Standing almost 12 metres (40 feet) tall, Su's "Cosmic Engine" wavered, it is said, by only a few minutes in every 24 hours. From twin tanks filled by servants, a steady flow of water was cupped and spilled by a series of buckets mounted on a wheel. The rotation of the wheel turned the clock, as well as an astronomical sphere and globe that charted the movement of the sun, moon and planets. Drums beat 100 times a day; bells chimed every two hours. A replica, painstakingly built with contemporary methods, now turns in Taiwan's National Museum of Natural Science.

Clock making was only one scientific endeavour in which China and India comfortably led the world before the 15th century. China outstripped Europe in its understanding of hydraulics, ironsmelting and shipbuilding. Its machines for ginning cotton, spinning ramie and throwing silk seemed to lack only a flying shuttle and a drawbar to match the 18th-century contraptions that launched Britain's Industrial Revolution. Clean your teeth with a toothbrush, rebuff the rain with a collapsible umbrella, turn a playing card, light a match, write, pay—or even wipe your behind—with paper, and you register a debt to China's powers of invention.

India's genius, then as now, was in software not hardware. Its ancient civilisations ushered in a "mathematical revolution" from the fifth century, when Aryabhata devised something like the decimal system. In the seventh century Brahmagupta explained that a number multiplied by zero was zero. By the 15th century, Madhava had calculated *pi* to more than ten decimal places.

After the 15th century, however, the technological clock stopped in both countries, even as it accelerated in Europe. This peculiar loss of momentum, noted Joseph Needham, a great historian of Chinese science, takes some explaining. Why, he asked, did the science of Galileo emerge "in Pisa but not in Patna or Peking"?

In his book "The Lever of Riches", Joel Mokyr settles on a simple explanation for China's technological stagnation: the country's imperial state lost interest. Its purposes were better served by continuity than by progress, and there was no rival source of power and patronage to pick up the threads it dropped. Roddam Narasimha of India's National Institute of Advanced Studies reaches a similar conclusion for India. "Up to the 18th century, the East in general was strong and prosperous, the status quo was comfortable, and there was no great internal pressure to change the global order," he writes.

That diffidence no longer hampers either state. Both China and India are now restless with technological ambition. China's government does not have the luxury of choosing between progress and stability; it cannot enjoy social peace without economic advance. For the past 30 years it has tried to turn the clock forward. By 2020 it aims to spend a bigger share of its GDP on research and development (R&D) than the European Union.

India, for its part, surveys the future with uncharacteristic optimism. Its technological confidence has grown immeasurably thanks to the success of its software and IT firms. The heirs to Aryabhata and Brahmagupta, India's digital ambassadors have won acclaim for their mastery of ones as well as zeros.

But even as India's technological powers make a splash in the world, they stir only the surface of its own vast society. India produces more engineering graduates than America. But it has only 24 personal computers for every 1,000 people, and fewer than three broadband connections. India's billion-strong population cuts both ways. Whenever an Indian demographic appears as a numerator, the resulting number looks big. But whenever its population is in the denominator, the number looks small. It is like looking at the same phenomenon from opposite ends of a telescope. As of now, India matters more to technology than technology does to India.

This is a pity. India and China still have more to gain from the adoption and assimilation of technology than from invention per se. Some of their best minds are adding generously to the world's stock of knowledge, but the more urgent task for the countries themselves is to make wider use of know-how that already exists. Indeed, the World Bank has calculated that India could quintuple the size of its economy if it only caught up with itself—that is, if the mediocre firms in its industries closed the gap with the best. Both countries miss out when policies to promote invention, such as China's push for "indigenous" innovation or India's recent patent laws, serve to stymie diffusion.

A year in China, foreign residents say, is like ten years outside. Its clock is already turning rapidly. But the cogs and levers that drive technological progress are as intricate and delicate as Su Sung's mechanism. China's government is in danger of trying to do too much. Its monumental efforts to educate and train have filled the tanks of its innovation engine. Now it is time for it just to let the water flow.

No. of words : 866 Time taken to read : ____ minutes Reading speed: ____ w.p.m

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Express the main idea of the passage in one sentence: _____

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PRACTICE PASSAGE – 15

The question is as simple as this: do you want a few corporations to monopolise the global food supply? If the answer is yes, you should welcome the announcement that the commercial planting of a GM crop in Britain can go ahead. If the answer is no, you should regret it. The principal promotional effort of the genetic engineering industry is to distract us from this question.

GM technology permits companies to ensure that everything we eat is owned by them. They can patent the seeds and the processes which give rise to them. They can make sure that crops can't be grown without their patented chemicals. They can prevent seeds from reproducing themselves. By buying up competing seed companies and closing them down, they can capture the food market.

No one in their right mind would welcome this, so the corporations must persuade us to focus on something else. At first they talked of enhancing consumer choice, but when the carrot failed, they switched to the stick. Now we are told that unless we support the deployment of GM crops in Britain, our science base will collapse. And that, by refusing to eat GM products in Europe, we are threatening the developing world with starvation. Both arguments are imaginative, but in public relations cogency counts for little. All that matters is that you spin the discussion out for long enough to achieve the necessary result. And that means recruiting eminent figures to make the case on your behalf.

Last October, 114 scientists, many of whom receive funding from the biotech industry, sent an open letter to the Prime Minister claiming that Britain's lack of enthusiasm for GM crops "will inhibit our ability to contribute to scientific knowledge internationally". 1 Scientists specialising in this field, they claimed, were being forced to leave the country to find work elsewhere.

GM crops are not science. They are technological products of science. To claim, as Tony Blair and several senior scientists have done, that those who oppose GM are "anti-science" is like claiming that those who oppose chemical weapons are anti-chemistry. Scientists are under no greater obligation to defend GM food than they are to defend the manufacture of Barbie dolls.

This is not to say that the signatories were wrong to claim that some researchers, who have specialised in the development of engineered crops, are now leaving Britain to find work elsewhere. As the public has rejected their products, the biotech companies have begun withdrawing from this country, and they are taking their funding with them. But if scientists attach their livelihoods to the market, they can expect their livelihoods to be affected by market forces. The people who wrote to Blair seem to want it both ways: commercial funding, insulated from commercial decisions. In truth, the biotech companies' contribution to research in Britain has been small. Far more money has come from the government. Its Biotechnology and Biological Sciences ResearchCouncil, for example, funds 26 projects on GM crops and just one on organic farming. If scientists want a source of funding that's unlikely to be jeopardised by public concern, they should lobby for this ratio to be reversed.

But the plight of the men in white coats isn't much of a tearjerker. A far more effective form of emotional blackmail is the one deployed in the Guardian last week by Lord Taverne, the founder of the Prima PR consultancy. "The strongest argument in favour of developing GM crops," he wrote, "is the contribution they can make to reducing world poverty, hunger and disease."

There's little doubt that some GM crops produce higher yields than some conventional crops, or that they can be modified to contain more nutrients, though both of these developments have been over-hyped. Two projects have been cited everywhere: a sweet potato being engineered in Kenya to resist viruses, and vitamin A-enhanced rice. The first scheme has just collapsed. Despite $6m of funding from Monsanto, the World Bank and the US government, and endless hype in the press, it turns out to have produced no improvement in virus resistance, and a decrease in yield. Just over the border in Uganda, a far cheaper conventional breeding programme has almost doubled sweet potato yields. The other, never more than a concept, now turns out not to work even in theory: malnourished people appear not to be able to absorb vitamin A in this form. But none of this stops Lord Taverne, or George Bush, or the Nuffield Council on Bioethics, from citing them as miracle cures for global hunger.

But some trials of this kind are succeeding, improving both yield and nutritional content. Despite the best efforts of the industry's boosters to confuse the two ideas, however, this does not equate to feeding the world. The world has a surplus of food, but still people go hungry. They go hungry because they cannot afford to buy it. They cannot afford to buy it because the sources of wealth and the means of production have been captured and in some cases monopolized.

Now in some places governments or unselfish private researchers are producing GM crops which are free from patents and not dependent on the application of proprietary pesticides, and these could well be of benefit to small farmers in the developing world. But Taverne and the other propagandists are seeking to persuade us to approve a corporate model of GM development in the rich world, in the hope that this will somehow encourage the opposite model to develop in the poor world. Like the scientists who wrote to Blair, the emotional blackmailers want to have it both ways: these crops are being grown to feed starving people, but the starving people won't be able to eat them unless, er … they can export this food to Britain.

No. of words : 966 Time taken to read : ____ minutes Reading speed : ____ w.p.m

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PRACTICE PASSAGE – 16

There are vast amounts of water on earth. Unfortunately, over 97% of it is too salty for human consumption and only a fraction of the remainder is easily accessible in rivers, lakes or groundwater. Climate change, droughts, growing population and increasing industrial demand are straining the available supplies of fresh water. One time-tested but expensive way to produce drinking water is desalination: removing dissolved salts from sea and brackish water. The world's oceans, in particular, present a virtually limitless and drought-proof supply of water. "If we could ever competitively—at a cheap rate—get fresh water from salt water," observed President John Kennedy nearly 50 years ago, "that would be in the long-range interest of humanity, and would really dwarf any other scientific accomplishment." According to the latest figures from the International Desalination Association, there are now 13,080 desalination plants in operation around the world. Together they have the capacity to produce up to 55.6m cubic metres of drinkable water a day—a mere 0.5% of global water use. Because desalination requires large amounts of energy and can cost several times as much as treating river or groundwater, its use in the past was largely confined to wealthy oil-rich nations, where energy is cheap and water is scarce.

As more parts of the world face prolonged droughts or water shortages, desalination is on the rise. In California alone some 20 seawater-desalination plants have been proposed, including a $300m facility near San Diego. Several Australian cities are planning or constructing huge desalination plants, with the biggest, near Melbourne, expected to cost about $2.9 billion. Even London is building one. According to projections from Global Water Intelligence, a market-research firm, worldwide desalination capacity will nearly double in the next ten years.

Some environmental groups are concerned about the energy the plants will use, and the greenhouse gases they will spew out. A large desalination plant can suck up enough electricity in one year to power more than 30,000 homes.

The good news is that advances in technology and manufacturing have reduced the cost and energy requirements of desalination. And many new plants are being held to strict environmental standards. One recently built plant in Perth, Australia, runs on renewable energy from a nearby wind farm. In addition, its modern seawater-intake and waste-discharge systems minimise the impact on local marine life. Jason Antenucci, deputy director of the Centre for Water Research at the University of Western Australia in Perth, says the facility has "set a benchmark for other plants in Australia."

But the first concerted efforts to produce drinking water from seawater were not until the 16th century, when European explorers on long sea voyages began installing simple desalting equipment on their ships for emergency use. These devices tended to be crude and inefficient, and boiled seawater above a stove or furnace.

An important advance in desalination came from the sugar industry. To produce crystalline sugar, large amounts of fuel were needed to heat the sugar sap and evaporate the water it contained. Around 1850 an American engineer named Norbert Rillieux won several patents for a way to refine sugar more efficiently. His idea became what is known today as multiple-effect distillation, and consists of a cascading system of chambers, each at a lower pressure than the one before. Heat from water vapour in the first chamber can thus be recycled to evaporate water in the next chamber, and so on.

But it took about 50 years for the idea to make its way from one industry to another. Only in the late 19th century did multi-effect evaporators for desalination begin to appear on steamships and in arid countries such as Yemen and Sudan.

A few multi-effect distillation plants were built in the first half of the 20th century, but a flaw in the system hampered its widespread adoption. Mineral deposits tended to build up on heat-exchange surfaces, and this inhibited the transfer of energy. In the 1950s a new type of thermal-desalination process, called multi-stage flash, reduced this problem. In this, seawater is heated under high pressure and then passed through a series of chambers, each at a lower pressure than the one before, causing some of the water to evaporate or "flash" at each step. Concentrated seawater is left at the bottom of the chambers, and freshwater vapour condenses above. Because evaporation does not happen on the heat-exchange surfaces, fewer minerals are deposited.

Countries in the Middle East with a lot of oil and a little water soon adopted multi-stage flash. Because it needs hot steam, many desalination facilities were put next to power stations, which generate excess heat. For a time, the cogeneration of electricity and water dominated the desalination industry.

Research into new ways to remove salt from water picked up in the 1950s. The American government set up the Office of Saline Water to support the search for desalination technology. And scientists at the University of Florida and the University of California, Los Angeles (UCLA) began to investigate membranes that are permeable to water, but restrict the passage of dissolved salts.

Such membranes are common in nature. When there is a salty solution on one side of a semi-permeable membrane, and a less salty solution on the other, water diffuses through the membrane from the less concentrated side to the more concentrated side. This process, which tends to equalise the saltiness of the two solutions, is called osmosis. Researchers wondered whether osmosis could be reversed by applying pressure to the more concentrated solution, causing water molecules to diffuse through the membrane and leave behind highly concentrated brine.

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PRACTICE PASSAGE – 17

Few places on earth are as isolated as Tristan da Cunha. This small huddle of volcanic islands, with a population of just 269, sits in the middle of the South Atlantic, 1,750 miles from South Africa and 2,088 miles from South America. So it is a bad place to fall ill with an unusual disease, or suffer a serious injury. Because the islands do not have an airstrip, there is no way to evacuate a patient for emergency medical treatment, says Carel Van der Merwe, the settlement's only doctor.

Nevertheless, the islanders have access to some of the most advanced medical facilities in the world, thanks to Project Tristan, an elaborate experiment in telemedicine. This field, which combines telecommunications and medicine, is changing as technology improves. To start with, it sought to help doctors and medical staff exchange information, for example by sending X-rays in electronic form to a specialist. That sort of thing is becoming increasingly common. "What we are starting to see now is a patient-doctor model," says Richard Bakalar, chief medical officer at IBM, a computer giant that is one of the companies in Project Tristan.

A satellite-internet connection to a 24-hour emergency medical centre in America enables Dr Van der Merwe to send digitised X-rays, electrocardiograms (ECGs) and lung-function tests to experts. The system even enables cardiologists to test and reprogram pacemakers or implanted defibrillators from the other side of the globe. It is a great comfort to local residents, says Dr Van der Merwe, knowing that specialist consultations are available.

Most of the technology this requires is readily available, and it was surprisingly simple to set up, says Paul Grundy, a health-care expert at IBM. The biggest difficulty, he says, was to install the satellite-internet link. In theory, this sort of long-distance telemedicine could go much further. In 2001 a surgeon in New York performed a gall-bladder removal on a patient in Paris using a robotic-surgery system called Da Vinci.

For advances in telemedicine are less to do with the tele- than with the medicine. In the long term, it may be less about providing long-distance care to people who are unwell, and more about monitoring people using wearable or implanted sensors in an effort to spot diseases at an early stage. The emphasis will shift from acute to chronic conditions, and from treatment to prevention. Today's stress on making medical treatment available to people in remote settings is just one way telemedicine can be used.

That is because telemedicine holds great promise within mainstream health care. Countless trials are under way to assess technology that can monitor people who have been diagnosed with heart conditions, or diseases like diabetes, from the comfort of their own homes. Some pacemaker patients can now have their implants inspected via mobile phone. That way, they need only visit the clinic when it is absolutely necessary.

Similarly, BodyTel, based in Germany, is one of several firms to have developed sensors based on Bluetooth technology that can measure glucose levels, blood pressure and weight, and upload the data to a secure web server. Patients can then manage and monitor their conditions, even as they give updates to their doctors. Honeywell, has devised a system that patients can use at home to measure peak flow from their lungs, ECG, oxygen saturation and blood pressure, in order to monitor conditions ranging from lung disease to congestive heart failure. Doctors continually review the data and can act, by changing the patients' medication, if they spot any problems. This sort of thing appeals to both patients and health-care providers alike. The patients keep their

independence and get to stay at home, and it costs less to treat them. And as populations age in developed countries, the prospect of being able to save money by treating people at home looks increasingly attractive.

It is not just people with diagnosed conditions who are starting to receive this kind of equipment. Since 2006, Britain has spent £80m ($160m) on "preventative technology grants" which provide special equipment to enable 160,000 elderly people to stay in their homes.

Most of today's technology, however, calls on the patients to remember to monitor themselves, and also requires them to operate the equipment. For some patients, such as those in the early stages of Alzheimer's disease, that is impractical. So a lot of work is being done to automate the monitoring process and make the equipment easier to use.

William Kaiser and his colleagues at the University of California, Los Angeles, have developed a "smart cane" to help monitor and advise people convalescing at home. "It has force sensors that measure pressure at the tip of the cane and around the handle. It also has motion sensors and accelerometers," says Dr Kaiser. It uses these to calculate the gait of the patient and work out how they are doing with the cane, giving them feedback about how they could make better use of it to recover from, for example, a hip replacement. "It provides guidance, either as beeps or it can talk to you," he says.

Another approach is to use sensors embedded in the home. Oliver Goh of Implenia, a Swiss building-management firm, has come up with a system to monitor the well-being of the occupant of a house. Using sensors on doors and mattresses, smart pill boxes that can tell when they are being opened, heart-monitors and a location-sensing wristwatch—the system allows carers to keep tabs on elderly people. Implenia now has six elderly volunteers lined up to test the technology, says Mr Goh. Ultimately, he says, the aim is to see if this sort of approach can help to extend life expectancy.

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PRACTICE PASSAGE – 18

I have been writing about it for years. But it's only now, when I'm caught in the middle of it, that the full force of this injustice hits me. Like everyone else here I feel powerless, unstrung as I watch disaster unfold in slow motion. I live in the last small corner of Gaul still holding out against the Romans. In other words, a small market town (Machynlleth in mid-Wales) which has yet to be conquered by the superstores. No one expects us to hold out for much longer. Last month Tesco submitted an application to subjugate us. It wants to build a store of 27,000 square feet on the edge of the town centre. Over 300 people - roughly one fifth of the adult population - have sent letters of objection. The case against the store and the strength of local feeling is so strong here that if we can't beat Tesco, no one can.

This town's tragedy has been precisely foretold. In 1998, the government commissioned a study of the impact of big stores on market towns. It found that when a large supermarket is built on the edge of the centre, other food shops lose between 13 and 50% of their trade. Towns are hit especially hard where supermarkets "are disproportionately large compared with the size of the centre". In these cases the superstore becomes the new town centre, leaving the high street to shrivel. If this monster is built, everything that is special and precious and distinctive about this town - the quirky shops, the UK's oldest farmers' market, the busy community - falls under its shadow. Tesco will suck the marrow out of us.

The prospects for small shops were dim enough during the boom. As the supermarkets closed in, independent stores in the UK shut at the rate of 2,000 a year between 1997 and 2004. Tesco, by contrast, has been mopping up. In April, for the first time, its turnover exceeded £1bn a week. But in seeking to oppose its application, we find ourselves fighting bound and gagged. Tesco launched its campaign with an exhibition and "consultation", which seemed to me to be wildly biased in favour of the development. I asked its PR man whether the consultation would be independently audited. The answer was no. Tesco announced that the great majority of residents were in favour of the store. A door-to-door survey by local people discovered the opposite, but I think you can guess which study made the headlines.

We waited, but we had no idea when Tesco would submit its application. Like all developers, it is not obliged to give prior notice. It submitted its plans to the county council on June 24th. The council didn't release them until July 14th. From Tesco's point of view, the timing was perfect. This was the week in which the county's schools broke up and many of its opponents were setting off on holiday. We had

until July 31st to register our objections (we lost four days due to council fumbling). People are now returning from their holidays to discover that it's too late to object. To compound the unfairness, there is no legal requirement for the developer to ensure that the claims it makes are accurate. It maintains that the new store "will provide a minimum of 140 additional full and part time jobs". But the superstores' own research shows that every large outlet causes the net loss of 276 jobs. Tesco maintains that it will buy local produce "wherever possible". But when its representatives were challenged on this point, they said that local suppliers would have to sell their produce to the company as a whole. It would be trucked to the nearest distribution centre - now 120 miles away in Avonmouth - and then trucked back across Wales to Machynlleth.

But the real issue is this: if the county council turns it down, Tesco can appeal. The cost to the council would be astronomical. As John Sweeney, leader of North Norfolk District Council observed, Tesco "are too big and powerful for us. If we try and deny them they will appeal, and we cannot afford to fight a planning appeal and lose. Hardly any local authority is prepared to take the risk. Objectors, have no right of appeal. The inequality of arms means that we scarcely stand a chance.

Once the store is built, we will quickly be deprived of choice. As the customers peel off and the income of the independent stores declines, the quality and range of their produce falls, driving more people into Tesco's arms.

The question that occurs to me is this: why should people who don't live here be making this decision? I understand why decisions about essential services should not be made by the community alone. I know that rich villages try to shut out social housing and that local people campaign against hostels for the homeless and mental health units. But in this case we are not talking about essential services. We are talking about choice. You can already buy all the food you need in this town, including much cheaper produce than the superstores sell. By voting against Tesco we would not be depriving anyone of the means of subsistence.

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PRACTICE PASSAGE – 19

The principal cause of man's unhappiness is that he has learnt to stay quietly in his own room. If our needs are not met, if justice is not done, it is because we are not prepared to leave our homes and agitate for change. We do not starve, we are not arbitrarily imprisoned, we may vote, travel and read and write what we wish only because of the political activism of previous generations. Almost all MPs, will acknowledge this. Were it not for public protest they wouldn't be MPs. Yet, though the people of this country remain as mild and as peaceful as they have ever been, our MPs have introduced a wider range of repressive measures than at any time since the Second World War. A long list of laws – the 1997 Protection from Harassment Act, Terrorism Act 2000, Regulation of Investigatory Powers Act 2000, the 2005 Serious Crime and Police Act and many others(1) - treat peaceful protesters as if they are criminals. Thousands of harmless, public-spirited people now possess criminal records. Why is it happening?

Before I try to answer this, let me give you an idea of just how weird policing in Britain has become. A few weeks ago, like everyone in mid-Wales, I received a local policing summary from the Dyfed-Powys force. It contained a section headed Terrorism and Domestic Extremism. "Work undertaken is not solely focussed on the threat from international terrorists. Attention has also been paid to the potential threat that domestic extremists and campaigners can pose." I lodged a freedom of information request to try to discover what this meant. I've just been told by the police that they don't intend to reply within the statutory period, or to tell me when they will. But Paul Mobbs of the Free Range Network has found what appears to be an explanation. Under the heading "Protect[ing] the country from both terrorism and domestic extremism", the Dyfed-Powys Police website repeats the line about domestic extremists and campaigners. Mobbs has also found a bulletin circulated among Welsh forces at the end of last year, identifying the "new challenges and changes" the police now face. Under "Environmental" just two are listed: congestion charging and "eco-terrorism". Eco-terrorism is a charge repeatedly levelled against the environment movement, mostly by fossil fuel lobbyists. But, as far as I can discover, there has not been a single recorded instance of a planned attempt to harm people in the cause of environmental protection in the United Kingdom over the past 30 years or more. So what do the police mean by eco-terrorism? It appears to refer to any environmental action more radical than writing letters to your MP.

The Association of Chief Police Officers (ACPO) now runs three units whose purpose is to tackle another phenomenon it has never defined: domestic extremism. These are the National Extremism Tactical Co-ordination Unit (NETCU), the Welsh Extremism and Counter-Terrorism Unit and the National Public Order Intelligence Unit. Because ACPO is not a public body but a private limited company, the three bodies are exempt from freedom of information laws and other kinds of public accountability, even though they are funded by the Home Office and deploy police officers from regional forces. So it's hard to work out exactly what they do, apart from libelling peaceful protesters. I wrote a column in December about the smears published by NETCU, which described villagers in Oxfordshire peacefully seeking to prevent a power company from filling their local lake with fly ash as a "domestic extremist campaign". It also sought to smear peace campaigners, Greenpeace and Climate Camp with the same charge. NETCU's site went down on the day my column was published and hasn't been restored since. But we have only patchy evidence of what else these three unaccountable bodies have been up to. They appear to have adopted the role once filled by Special Branch's counter-subversion campaign, which spied on Labour activists, including Jack Straw and Peter Mandelson But as Paul Mobbs points out in his new report on Britain's secretive police forces, today the police appear to be motivated not by party political bias, but by hostility towards all views which do not reflect the official consensus.

Mobbs proposes that mainstream politics in Britain cannot respond to realities such as global and national inequality, economic collapse, resource depletion and climate change. Any politics that does not endorse the liberal economic consensus, which challenges the concentration of wealth or power, or which doesn't accept that growth and consumerism can be sustained indefinitely, is off-limits. Just as the suffragettes were repressed because their ideas – not their actions - presented a threat to the state, the government and the police must suppress a new set of dangerous truths. By treating protesters as domestic extremists, the state marginalises their concerns: if people are extremists, their views must be extreme. Repression, in a nominal democracy, cannot operate accountably, so the state uses police units which are exempt from public scrutiny.

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PRACTICE PASSAGE – 20

The parliamentary committee report on genetically modified (GM) organisms is an attempt to give a quiet burial to biotechnology in India. On behalf of the farmers of India, let me say that this report totally fails to reflect farmers' aspirations, and distorts the scientific significance of biotechnology - including genetic engineering - for the national economy. Instead, it echoes persistent canards by some environmental NGOs.

Indian farming suffers losses of up to ₹1 lakh crore from pests and diseases annually, apart from natural calamities. Till the 1960s, India used only conventional breeding for seeds - but these traditional varieties were insufficient to feed the country, which became totally dependent on food aid from the US. Then came the Green Revolution which harnessed biotechnology. This saved India from starvation and made it a food exporter.

But the limits of the Green Revolution technology have been reached. We now need new kinds of biotechnology, including GM crops. The government has created the Genetic Engineering Approval Committee (GEAC) to regulate the entry of new GM crops.

Unfortunately, the parliamentary committee's report seems to have been written for them by green activists without reference to scientists or farmers. Instead of hailing GM crops as a huge success, they are being portrayed as dangerous. This demonisation will demoralise top Indian researchers.

Bt cotton, approved by GEAC in 2002, is one of the most successful stories of Indian agriculture after the Green Revolution. Fifty thousand hectares were planted in 2002, and by 2012 this reached 10 million hectares planted by 10 million farmers in nine states. India became the second largest producer of cotton in the world. It was a boon to Indian farmers. Yet, the parliamentary committee has swallowed NGOs' claims that this has been no use at all for farmers.

GM crops of maize, soya, potato, sugar beet, canola, cotton and alfalfa are grown across the world. The US, Brazil, Argentina and China are massive producers. The global GM crops area increased from 4.3 million hectares in 1996 to 148 million hectares by 2010. Not a single case of any danger to human health has been reported, yet green activists keep spreading false stories about health hazards.

Ten industrial nations and 19 developing countries are producing GM crops. Another 30 countries including EU countries - which do not grow GM crops themselves - are importing and consuming GM foods directly and indirectly.

The EU countries that widely oppose GM crops have barely 15 million farmers, and follow double standards. They import huge quantities of cattle feed and beef from GM crop-producing countries including Brazil, so GM crops are very much in the European food chain. Besides, over 20 million European tourists visit the US and Latin America every year and happily consume GM food there with no adverse health effects. Yet, they make a huge noise in their own countries. But today, even the EU has allowed some GM crops: Spain with 76,575 hectares of Bt maize is the leader.

China is growing Bt cotton, tomato, papaya and sweet pepper. In 2007, it gave in principle approval for Bt rice and Bt maize. As of 2010, China was cultivating 3.5 million hectares of Bt crops. All other large nations with big populations have also prioritised GM crop production and marketing because of the economic benefits and food needs of their masses. India must do the same.

The parliamentary committee report has belittled the hard work by various ministries, the Planning Commission, private companies and the agriculture universities that evolved policies and programmes to propel biotech research to help our nation. Our eminent agriculture scientists such as Gurdev Kush, Ganesh Kishore, C S Prakash, S R Rao, Anand Kumar and Kailash Bansal - along with hundreds of other young and dedicated scientists - have dedicated their lives to this technology.

If we look at future growth, India's population will rise from the present 1.2 billion to 1.8 bilion by 2050. There is already strong competition on farms for food, fuel, feed and fodder. Huge swathes of farmland are being diverted for infrastructure and urbanisation. This will only grow more acute as our population grows.
The solution is to increase per hectare productivity, which includes resistance to pests and diseases. This is possible only with new technologies such as GM. We cannot let the report dampen Indian scientific morale; that would have huge adverse effects. We must enable India's 600 million small farmers to compete with farmers in the US, Brazil and China. For that, GM crops are an absolute must.

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PRACTICE PASSAGE – 21

It forces all debates into 140 characters, including spaces and punctuation marks. Anyone with an opinion can say anything they want, to any person ranging from Rupert Murdoch and Amitabh Bachchan to my niece and your mother, if they happen to be on it. Yet there are over 500 million people on it, either following someone or being followed. Why on earth does Twitter have so much appeal, and what are the lessons it holds for other mass media brands?

The answer needs some plugging into the past. For those of us from the one-newspaper, one-TV channel era, the internet was about the democratisation of information and communication.

It made information available at the click of a button. Ask business journalists from the pre-internet era (including yours truly) about how they did their research. Simple things like the annual report of a listed company were a challenge. I know of several colleagues who bought a small quantity of shares in major companies. That way, as shareholders, the annual reports would be sent to them. It was impossible to get global figures unless you wheedled year-old data from the Indian managers or wrote to the firm's head office, by post.

Getting from there to a point where you can read financial analysis and research, or any newspaper and magazine, from across the world is a liberating feeling for someone in the business of intellectual exploration.

Similarly, the internet democratised communication, because it spread e-mail. Till then you could not even hope to get the fax number of someone who did not want to talk to you. For those unfamiliar with a fax machine, it transmits scanned physical copies of a document across phone wires. I remember feeling very hi-tech about being able to send requests to people in Dubai, Holland or the UK by fax while working for an import-export magazine out of Mumbai. The fun was not just in being able to communicate but being able to get through - a difficulty in the days of landlines and protective secretaries.

Just like a fax, the question of not getting an e-mail doesn't arise - because date, time and receipt are logged in the system. Most people can't lie about not getting a mail without looking foolish.

Twitter takes this to another level - it democratises access. You can actually read directly what people you admire, like or dislike, have to say about something. About six years back, just before Twitter was born, could you have imagined reading Rupert Murdoch's unedited, off-the-cuff comments on politics? Or coming to know that Shahrukh Khan woke up to a hug from his son? More importantly, could you have imagined that you could react to these comments directly, without secretaries, editors and mail servers coming in between? And that Messrs Murdoch or Shahrukh or whoever will in all probability read your comment? That, I think, is the first and biggest appeal of Twitter.

The second, of course, is the amount of specialisation it allows within the babble of 140 million tweets and comments. So a luddite like me, who signed on only in July last year, has discovered the joys of having a news feed devoted to media and entertainment. From Ofcom, LSE Media policy, Poynter or Veronis Suhler Stevenson, all the sources of information I rely on can feed me their headlines.

And if something interests me I click. This has its drawbacks, especially overload - on most days I end up postponing an interesting piece I would have otherwise read in a magazine or newspaper. Also, following institutions or bodies is a more rewarding experience; following people is trickier. It is annoying when specialists you follow tweet random stuff. I know of film critics who talk about the quality of ice cream in a multiplex, or how they had a cold when on tour.

What does Twitter's success with audiences (not yet revenues) say to mass media brands? The obvious takeaway is about accessibility. Earlier, if you wanted to react to a story on a TV channel or a newspaper, you had to write in to them by snail mail. Now, their Twitter and even Facebook pages give you quick access. Most writers and editors are on Twitter, so they can receive feedback on their work.

The second takeaway: it also tells you, more emphatically than ever, how critical professionally-generated content is to the chateratti. Without the articles and opinions mainstream newspapers and TV stations generate, the babble on Twitter would be down to half or less.

And that brings me to takeaway three, one that answers a question that is asked at every forum on whether mass media will lose out because of digital. This is not about winning or losing audiences. This is about co-existing, dovetailing and complimenting everything else around you to give consumers a better media experience. Twitter does that by improving the way we use old media and new. Not many media brands can make that claim.

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PRACTICE PASSAGE – 22

Tirunesh Dibaba won the women's 10,000 metres gold medal at the London Olympic Games. A day later, Tiki Gilana, a fellow Ethiopian, won the gold for women's marathon. The next day, another Ethiopian won the bronze for the men's 10,000 metres.

In case this reads like a laundry list of the world's best long-distance runners, here's an interesting sidelight: all of them and many others who between them have won 10 Olympic gold medals and broken 10 world records come from just one Ethiopian village with 30,000 inhabitants. The name of the village is Bekoji.

Rasmus Ankersen, a former football player who turned to professional coaching and then to management teaching, pauses at this point and then asks dramatically: Have you ever asked yourself how did one athletics club in Jamaica that trains on diesel-scorched dirt field with a pile of cones and no air conditioning manage to win nine sprint medals at the Olympics? Why do the world's best skiers come from a northern Sweden village that has just 500 inhabitants? And why do 45 of the world's 100 best women golfers come from a tiny town around Seoul?

Ankersen, who was in Mumbai recently to attend the three-day Ernst & Young Strategic Growth Forum, says the lesson to be learnt is that talent can be found anywhere and it is a test of the skill of the top managements in companies to spot potential talent and allow them to flower. The mistake managements make is to take the predictable route - best institutes, best educational certificates, best experience and so on. It's a safe route but the point is it's also a hugely expensive route.

Ankersen - who prefers to call himself a "High Performance Anthropologist" - gives the example of Usain Bolt who broke all world records at the age of 15. "That's a talent that shouts. You don't need any special skills to recruit the Usain Bolts in your company. But since everybody is running after such talent, there are two problems: one, they will be obscenely expensive and, two, chances are they will jump ship before you bat an eyelid," Ankersen says. So, the trick is to spot "talent that whispers". That's what he has learnt after touring the goldmines of talent around the globe over the past six months.

How do you define whispering talent? Ankersen reels out names. For example, Brazilian football team Flamengo had refused to pay for Ronaldo's bus ticket and turned him down since he was considered too tiny to be an effective footballer. Michael Jordan was kicked out of his high school basketball team at 16; and Asafa Powell was rejected by all colleges in Jamaica when he was 17. All of them, fortunately, found a mentor who was willing to groom their raw talent.

There are examples from the business world, too. Ankerson cites a fellow Danish - Jorgen Vigs Knudstorp, CEO of Danish toymaker Lego. Knudstorp apparently could not read or spell in primary school. The management guru also quotes research findings that say 35 per cent of the world's CEOs were dyslexic in the early part of their lives. In short, they were all low-performers early on and found somebody who could spot them and made them go through the grind. Did you know, for example, that the IQ, or intelligence quotient, of most Chess Grandmasters has been found to be just average?

Ankersen says in their desperation to recruit the next superstar, companies often don't know that there is a big mismatch between what they are looking for and what is decisive in a particular job. That's because companies give undue weight to existing performance and ignore the potential. Many athletes or CEOs who faced rejection but went on to become legends were average on performance and high on potential.

Take, for example, the Facebook experience. When it started in 2002, the company knew it had no chance to attract talent if it took the traditional recruitment pathway that the Microsofts and Googles of the world ruled. So, it started an online puzzle contest and asked everyone who could solve the puzzle to call the CEO directly for an interview. Academic background didn't matter, Facebook said. Evan Prisetley, a high-school dropout who was making both ends meet by working for an ad agency website, got the job in 2006. Six years later, Priestley is one of the top performers in the company. Even now, when it is wooed by the best institutes, Facebook recruits a fifth of its employees through that online puzzle.

The bottom line, however, is that it's not enough to spot raw talent. It's equally, if not more, important to spot talent who has the attitude to go that extra mile. Here's some interesting data to substantiate this: high performers all over the world in sports or business have put in 10,000 hours of hard work over the past 10 years - that's two hours and 44 minutes every day. In short, as Ankersen says, put hunger (mental muscle) above skills to get that elite performance you are looking for.

No. of words : 848 Time taken to read : ____ minutes Reading speed : ____ w.p.m

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PRACTICE PASSAGE – 23

At the end of the 19th century Peter Kropotkin, a prince of Russia who had turned anarchist, fetched up in the UK. Like the communist Karl Marx before him, he took refuge among a population so scornful of overarching social theories that it could tolerate anyone who did not personally break the law. He found his host country humming with scientific ideas, notably Charles Darwin's on evolution and human behaviour. And the British provided him with his favourite example of anarchism in action. In his book Mutual Aid: A Factor of Evolution (1902) Kropotkin's thesis was that people in general are inherently virtuous and helpful to one another, and so don't need to be disciplined by political masters. In the Darwinian spirit he cited anticipations of altruistic behaviour among animals that he observed during travels in the Siberian wilderness. And for mutual aid among humans? 'The Lifeboat Association in this country,' Kropotkin wrote, 'and similar institutions on the Continent, must be mentioned in the first place. The former has now over 300 boats along the coasts of these isles, and it would have twice as many were it not for the poverty of the fisher men, who cannot afford to buy lifeboats. The crews consist, however, of volunteers, whose readiness to sacrifice their lives for the rescue of absolute strangers to them is put every year to a severe test; every winter the loss of several of the bravest among them stands on record.' Nowadays it's called the Royal National Lifeboat Institution, but the adjectives are honorific, not administrative. Although the gentry who assist in fundraising might be shocked to think that they are supporting an anarchist organization, Kropotkin did not err.

Command and control are decentralized to the coastal communities supplying the manpower, and the money comes from nationwide public donations, without a penny from the state. Even a modern high-tech, self-righting lifeboat is still lost from time to time, when it goes out without pause into an impossible tempest and robs a village of its finest young men. But also standing on record is the capacity of indistinguishable young men to perpetrate ethnic cleansing and other horrors. So, are human beings in general inherently wicked or kindly, aggressive or altruistic?

Original sin versus original virtue is the oldest puzzle in moral philosophy, and latterly in social psychology. Closely coupled with it are other big questions. What are the roles of genes and upbringing in shaping human behaviour in this respect? And are criminals fully accountable for their actions?

Science has illuminated the issues. Contributions come from studies of animal behaviour, evolution theory, social psychology, criminology and political science. The chief legacy from 20th-century science involves a shift of the searchlight from the behaviour of individuals to the distinctive and characteristic behaviour of human beings in groups.

Sigmund Freud and his followers tried to explain human aggression in terms of innate aggressiveness in individuals, as if a world war were just a bar brawl writ large, and a soldier necessarily a rather nasty person. Other theories blamed warfare on the pathology of crowds, impassioned and devoid of reason like stampeding cattle. But a platoon advancing with bayonets fixed, ready for sticking into the bellies of other young men, is emphatically not an ill-disciplined horde. A French-born social psychologist working at Bristol, Henri Tajfel, was dissatisfied with interpretations of aggression in terms of the psychology of individuals or mobs. In the early 1970s he carried out with parties of classmates, boys aged 14–15, an ingenious experiment known as Klee–Kandinsky. He established that he could modify the boys' behaviour simply by assigning them to particular groups. Tajfel showed the boys a series of slides with paintings by Paul Klee and Wassily Kandinsky, without telling them which was which, and asked them to write down their preferences. Irrespective of the answers, Tajfel then told each boy privately that he belonged to the Klee group, or to the Kandinsky group. He didn't say who else was in that group, or anything about its supposed characteristics—only its name.

Nothing was said or done to promote any feelings of rivalry. The next stage of the experiment was to share out money among the boys as a reward for taking part. Each had to write down who should get what, knowing only that a recipient was in the same group as themselves, or in the outgroup. There were options that could maximize the profit for both groups jointly, or maximize the profit for the ingroup irrespective of what the out-group got. Neither of these possibilities was as attractive as the choices that gave the largest difference in reward in favour of ingroup members. In other words, the boys were willing to go home with less money for themselves, just for the satisfaction of doing down the out group.

In this and similar experiments, Tajfel demonstrated a generic norm of group behaviour. It is distinct from the variable psychology of individuals, except in helping to define a person's social identity. With our talent for attaching ourselves to teams incredibly easily, as Tajfel showed, comes an awkward contradiction at the heart of social life. Humanity's greatest achievements depend on teamwork, but that in turn relies on loyalty and pride defined by who's in the team and who isn't. The out group are at best poor mutts, at worst, hated enemies. 'This discrimination has nothing to do with the interests of the individual who is doing the discriminating,' Tajfel said. 'But we have to take into account all the aspects of group membership, both the positive ones and the negative ones. The positive ones of course involve the individual's loyalty to his group and the value to him of his group membership, whilst the negative ones are all too well known in the form of wars, riots, and racial and other forms of prejudice.

No. of words : 976 Time taken to read : ____ minutes Reading speed : ____ w.p.m

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PRACTICE PASSAGE – 24

The seventeenth century is often described as the period in which the enterprise of modern science was born. The so-called Scientific Revolution, on this view, saw the birth in western Europe of many of the characteristic features of science as we know it today: intellectual, social, and institutional. But those latter two categories, the social and the institutional, probably owe their typical modern forms (especially the conduct of scientific research in universities) to precedents set in the nineteenth rather than the seventeenth century. Nonetheless, in the intellectual arena the importance of what happened in the seventeenth century is undeniable, because this period saw the emergence of one

of the most dominant metaphors in subsequent science: the metaphor of the world as a machine. There is nothing inevitable about seeing the world as a kind of machine. On the contrary, in cultures the world over, including most of earlier European history, the commonest way of seeing the natural world has been in terms of living organisms. In the learned culture of premodern Europe—the culture of universities and of books—the most influential version of this view derived from the writings of the ancient Greek philosopher Aristotle. Aristotle based his approach to nature on the ways in which we tend to make sense of living processes around us. Plants and animals, as well as people, are born, grow, become old, and die. Aristotle found it natural to model his understanding of all processes in the world on these kinds of experiences. For him, therefore, behaviors in the natural world were made intelligible by understanding them as processes, directed towards a goal. An acorn sprouts, sets roots, and grows. Why? Because it is on its way to becoming an oak tree. A dog runs towards a piece of meat. Why? Because it wants to eat it. Purpose, goals, make sense of all kinds of processes in the world, just as they do in explaining the behavior of human beings, and for Aristotle these goals did not even have to rely on conscious intentions. The acorn growing towards becoming an oak tree is not conscious of an intention to do so; it just does it. But we still explain what happens in terms of how the process will usually (barring accidents) end up. This form of explanation is known in English as *teleological,* from the Greek word *telos,* meaning goal.

Teleology characterized all of Aristotle's universe. It even explained such things as why stones fall to the ground: they do so because they are seeking the center of the universe (where Aristotle located the earth itself). This was the way in which the world of late medieval Europe, with Aristotelian philosophy entrenched in its universities, organized its natural philosophy and made sense of the world. Things and occurrences were intelligible when they could be understood in terms of processes that aimed at some purpose. This was the natural philosophy that many educated Europeans in the seventeenth century rebelled against. The major names in philosophy and the sciences in that period, such as Descartes, Galileo, and Newton, began to criticize the idea that teleological explanations were appropriate for understanding nature, and advocated in their place explanations that privileged mechanical causation. The model would no longer be a growing organism, but a clock. By knowing the arrangement of the clock's component parts and the ways in which they pushed against each other, one could understand the characteristic movements displayed by the clock's hands. To explain the movements of the hands by reference to their purpose of displaying the right time seemed to be ridiculous. In fact, an Aris- totelian philosopher would not have disagreed on that point. He would simply have regarded it as inappropriate to use a clock as the model for explaining *natural* phenomena. But for people like Descartes, even the growth of a plant was something to be understood in terms of inert matter in motion, analogous to clockwork. The seventeenth-century conflict between Aristotelian philosophers and the new proponents of what was called the "mechanical philosophy" is an excellent example of radically differing views of scientific intelligibility in conflict. Each group (despite wide differences among individuals in the same camp) sought natural-philosophical understanding, but they could scarcely agree on what true understanding meant. For one group, explanations of natural phenomena in terms of mechanical interactions failed to make sense of the very processes supposedly being explained, whereas for the other group, explanations of natural phenomena in terms of teleology themselves failed to make sense. Were inanimate objects to be ascribed souls that could have desires and intentions? Aristotelians did not believe that non-living things required souls or minds in order for their behaviors to be explained teleologically, but mechanists claimed not to understand how goal-directed behavior made any sense without them.

No. of words : 799 Time taken to read : ____ minutes Reading speed : ____ w.p.m

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PRACTICE PASSAGE – 25

Is there any other democracy so adept at editing its history? Even Spain, for years notoriously reluctant to get to grips with the legacy of Franco, has begun to acknowledge the past, as the success of Guillermo del Torro's masterpiece Pan's Labyrinth shows. The French are aware of every sordid detail of the excesses of both monarchs and revolutionaries. The Germans are pricked by their past every day. In the United States everyone knows about slavery, the civil war and segregation. But in Britain our collective memory has been wiped clean. Despite the efforts of authors such as Mike Davis, John Newsinger, Mark Curtis, Caroline Elkins and David Anderson our colonial atrocities still leave the national conscience untroubled. We appear to be even less aware of what happened at home.

Last week the National Trust, which is Britain's biggest private landowner and biggest NGO, announced that it is creating 1000 allotments – small patches which local people can rent for growing vegetables - on its properties, among them some of its grandest parks and estates. This was universally, and rightly, hailed as a good thing. But no one stopped, as no one ever does, to ask where this land came from.

The National Trust has done more than any other body to open up the countryside to the British people, and more than any other body to close down our minds. It bears more responsibility than any other body for the sanitised, tea-towel history which dominates the national consciousness. Last year over 100 million visitors explored its properties. They were exposed to a partial and selective view of Britain's past.

Take one of its finest and most famous holdings: Stowe Landscape Gardens. The gardens (really a landscaped deerpark) were a vast playground of crumbling follies and overgrown lakes, of coverts and laurel brakes in which ruined monuments could, like Mayan temples, be discovered by adventurous boys.

Now the gardens have been beautifully, if starkly, restored by the National Trust. The temples have been cleaned and mended, the thickets cleared, the volunteer woodland felled. They have been returned to the state intended by their authors: the first Viscount Cobham (1675-1749) and his descendants.

When you visit the gardens today, or read about them on the Trust's website, you will learn about the thirteen phases of the development of the gardens, the creation of the avenues, monuments and temples, the commissions executed by the famous architects and designers who worked here. But nowhere, as far as I can discover, will you find a word about who lived here before the estate was consolidated in the late 16th Century, or how local people were treated after the gardens were established 150 years later. The Trust, in other words, says nothing about the village cleared to create the deer-park, or the eviction, imprisonment, transportation or execution of those who lived there.

In Liberty Against the Law, Christopher Hill tells the story of the redistribution of land and wealth from rural labourers to the landed classes between the 16th and 18th centuries and the rack-renting, eviction and persecution of the poor. For landless labourers, he says, the termination of rights to common land "meant the difference between a viable life and starvation". Many died in the famines of the 1590s, 1620s and 1640s. Many more – 80,000 in the early 17th Century according to the historian Peter Clark - became vagabonds whose wandering put them on the wrong side of the law. They were branded, flogged back to their parishes, press-ganged by the navy and the merchant marine or forced into industries whose conditions and wage rates were "little better than slavery". The children of vagabonds and paupers were transported to Virginia, effectively as slaves. Many of them died in transit. There were enclosure riots (attempts to resist the landlords' seizure of the commons) all over the country. Almost all of them failed, and many of the rioters were transported or executed. In the 18th and 19th Centuries, Marion Shoard records in her book This Land is Our Land, a further 7 million acres of England – 20% of the total land area - were enclosed by landowners.

Of course there is no single history of the countryside and no single means of interpreting it. Sir Tony Wrigley, for example, emphasises instead the constraints of a local agrarian economy, and sees population growth as the main driver of migration. But neither version of the lives of the other 99% is given by the National Trust when you visit its stately homes and grand estates. The story is told solely from the point of view of the landowner. History, to the Trust, is the propaganda of the victor.

In its document History and Place, the National Trust maintains that "we can never hope fully to understand the past, but we can at least recognise that history is open to widely different interpretations … The Trust is ready to explore unfamiliar or uncomfortable history in new ways." And it is true that if you visit one of the workhouses it has lovingly restored, you can relive "the harshness of the nineteenth-century Poor Laws." But when you read what it says about its great estates, you will find no clues as to how those workhouses were populated. Perhaps because it doesn't want to scare its visitors away, perhaps because it has absorbed the views of previous landowners, it has airbrushed the poor from history.

No. of words : 903 ***Time taken to read : ____ minutes*** ***Reading speed : ____ w.p.m***

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PRACTICE PASSAGE – 26

First AOL and Time Warner announced their intention to combine. Then came Time Warner/EMI and Tribune/ Times Mirror. Even more significant, however, has been the speculation that these mergers have caused: If these transactions are consummated, a large number of additional media mergers are expected. There is even the possibility of a nightmare scenario-a wave of media mergers so large that within a decade most of our information will be supplied by perhaps six of these huge conglomerates and a fringe of much smaller firms.

It's time to ask two critical questions. Is this kind of media oligopoly what we, as a society, want? And if not, can the antitrust laws effectively prevent the threatened merger wave? The answer to the first question is clear. We do not want a media oligopoly. The answer to the second question, however, is far less certain. We should distrust a media oligopoly because it would give undue control to a small number of individuals. This need not manifest itself in a price rise for the daily newspaper or AOL's monthly fee. Rather, it could consist of a change in editorial viewpoints, a shift in the relative prominence of links to certain websites or a decision not to cover certain topics, because they are not "newsworthy". These problems could exist without any improper intent on the part of the media barons. Even if they try to be fair and objective, they will necessarily bring their own worldview to the job. And in time some of these conglomerates may be controlled by people who are not fair or objective. At first it might appear that the antitrust laws can be of little help in grappling with the issues presented by large media mergers. The anti-merger laws are commonly understood as protecting price competition, and a relatively small number of firms-to greatly oversimplify, let's say at most half a dozen-are normally thought to be enough to keep a market price-competitive. In industry after industry firms merge until there is only a handful left, and the antitrust enforcers are normally unable to do anything to prevent this. (In former years mergers were governed by an "incipiency" standard that prevented mergers and merger waves well before they would have led to very large or likely anti-competitive problems.) Even if a handful of firms are enough to insure effective competition in most industries, would six conglomerate media firms be sufficient for the diversity of viewpoints necessary to democracy? Would we be reassured if they could somehow guarantee that they would sell their magazines and Internet advertisements at competitive prices?

I am hopeful that the antitrust laws, if correctly and vigorously interpreted, are adaptable enough to meet this challenge. This is because antitrust is not exclusively about price. It is essentially about choice-about giving consumers a competitive range of options in the marketplace so that they can make their own, effective selection from the market's offerings. Consumers should be able to make their choices along any dimension important to them-including price, variety and editorial viewpoint. Communications media compete in part by offering independent editorial viewpoints and an independent gatekeeper function. Six media firms cannot effectively respond to the demand for choice or diversity competition by extending their product lines, because new media products will inevitably bear, to some degree, the perspective of their corporate parent. For these reasons competition in terms of editorial viewpoint or gate-keeping can be guaranteed only by insuring that a media market contains a significantly larger number of firms than is required for price competition in other, more conventional markets.

It is unclear, however, whether this interpretation of the anti-trust laws will be applied by the enforcement agencies and the courts. What is needed, therefore, is a much more careful look at the challenges that will be raised by future media mergers.

This could best be accomplished if Congress created a Temporary Committee to Study Media Mergers and Media Convergence. This committee could include members of Congress; the heads of the Federal Trade Commission, the Federal Communications Commission and the Justice Department's antitrust division; CEOs of media companies; and representatives of consumer groups. The committee would identify problems that may be caused by large media mergers and by media convergence. If the committee concludes that existing antitrust laws are inadequate, it should recommend to Congress that new anti-merger legislation be enacted. This may be the only way to prevent the nightmare scenario of a media oligopoly.

No. of words : 740 Time taken to read : ____ minutes Reading speed : ____ w.p.m

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PRACTICE PASSAGE – 27

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 tom 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 fisticuffs 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.

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PRACTICE PASSAGE – 28

The coming year marks a great milestone in the human saga, a development similar in magnitude to the agricultural era and the Industrial Revolution. For the first time in history, a majority of human beings will be living in vast urban areas, many in megacities and suburban extensions with populations of 10 million or more, according to the United Nations. We have become "Homo Urbanus."

Two hundred years ago, the average person on Earth might meet 200 to 300 people in a lifetime. Today a resident of New York City can live and work among 220,000 people within a 10-minute radius of his home or office in midtown Manhattan. Only one city in all of history -- ancient Rome -- boasted a population of more than a million before the 19th century. London became the first modern city with a population over 1 million in 1820. Today 414 cities boast populations of a million or more, and there's no end in sight.

As long as the human race had to rely on solar flow, the winds and currents, and animal and human power to sustain life, the population remained relatively low to accommodate nature's carrying capacity: the biosphere's ability to recycle waste and replenish resources. The tipping point was the exhuming of large amounts of stored sun, first in the form of coal deposits, then oil and natural gas. Harnessed by the steam engine and later the internal combustion engine and

converted to electricity and distributed across power lines, fossil fuels allowed humanity to create new technologies that dramatically increased food production and manufactured goods and services. The unprecedented increase in productivity led to runaway population growth and the urbanization of the world. No one is really sure whether this turning point in human living arrangements ought to be celebrated, lamented or merely acknowledged. That's because our burgeoning population and urban way of life have been purchased at the expense of vast ecosystems and habitats.

Cultural historian Elias Canetti once remarked that each of us is a king in a field of corpses. If we were to stop for a moment and reflect on the number of creatures and the amount of Earth's resources and materials we have expropriated and consumed in our lifetime, we would be appalled at the carnage and depletion used to secure our existence. Large populations living in megacities consume massive amounts of the Earth's energy to maintain their infrastructures and daily flow of human activity. The Sears Tower in Chicago alone uses more electricity in a single day than the city of Rockford, Ill., with 152,000 people. Even more amazing, our species now consumes nearly 40 percent of the net primary production on Earth -- the amount of solar energy converted to plant organic matter through photosynthesis -- even though we make up only one-half of 1 percent of the animal biomass of the planet. This means less for other species to use. The flip side of urbanization is what we are leaving behind on our way to a world of hundred-story office buildings, high-rise residences and landscapes of glass, cement, artificial light and electronic interconnectivity. It's no accident that as we celebrate the urbanization of the world, we are quickly approaching another historic watershed: the disappearance of the wild. Rising population; growing consumption of food, water and building materials; expanding road and rail transport; and urban sprawl continue to encroach on the remaining wild, pushing it to extinction.

Scientists tell us that within the lifetime of today's children, the wild will disappear from the face of the earth. The Trans-Amazon Highway, which cuts across the entire expanse of the Amazon rain forest, is hastening the obliteration of the last great wild habitat. Other remaining wild regions, from Borneo to the Congo Basin, are fast diminishing with each passing day, making way for growing human populations in search of living space and resources. It's no wonder that (according to Harvard biologist E.O. Wilson) we are experiencing the greatest wave of mass extinction of animal species in 65 million years. We are losing 50 to 150 species to extinction per day, or between 18,000 and 55,000 species a year. By 2100 two-thirds of the Earth's remaining species are likely to be extinct.

Where does this leave us? Try to imagine 1,000 cities of a million or more just 35 years from now. It boggles the mind and is unsustainable for Earth. I don't want to spoil the party, but perhaps the commemoration of the urbanization of the human race might be an opportunity to rethink the way we live.

Certainly there is much to applaud about urban life: its rich cultural diversity and social intercourse and its dense commercial activity. But the question is one of magnitude and scale. We need to ponder how best to lower our population and develop sustainable urban environments that use energy and resources more efficiently, are less polluting and better designed to foster living arrangements on a human scale.

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PRACTICE PASSAGE – 29

Governments could be making a big mistake by accruing more education, more scientists, assuming that automatically leads to more innovation and prosperity.

Innovation is an essential strategy for sustaining prosperity and coping with globalization, maintains Amar Bhidé, business professor at Columbia University, in the preface of his book, "The Venturesome Economy: How Innovation Sustains Prosperity in a More Connected World." Innovators set the pace in global markets, as followers copy and adapt to compete.

Yet Bhidé contends that the definition of innovation has become too narrow among many policymakers, admitting "The difficulty of defining technological innovation reveals the great diversity of its forms." For him, innovation goes far beyond piling up high-level products, patents or advanced degrees - but also covers ground-level techniques by ordinary workers, small discoveries often taken for granted by customers and business owners alike.

Innovation is an elusive and ambitious goal for book topic, let alone for policymakers to pursue, yet Bhidé tackles the challenge, expanding the definition along with the type of strategies that lead to an innovative business culture. He concludes that perhaps attitudes - especially passion - are more vital than tax breaks or training: Curiosity, altruism, quests for efficiency and a sense of adventure are better motivators than prosperity, personal or collective.

Bhidé busts some common misconceptions of innovation: Fewer PhDs do not necessarily mean less innovation. Subsequent applications, rather than an initial invention, spur prosperity and radical social change. Increased proportions of college graduates in a society may not necessarily herald economic benefits. And enthusiastic immigrants - not just high-level researchers - can increase employment opportunities and wages for domestic science and engineering workers. Countries are not locked into a "winner-take-all" contest for technological leadership, Bhidé argues, and advances in any one nation spread to others.

Attempts at exclusivity by techno-nationalists, including the tightening of immigration, trade in services or intellectual-property rights, neglects what Bhidé regards as a major driver for innovation, and that's a willingness among users to demand and try technology. The resourcefulness of common work people who reshape tools or processes by using them, everyday folk who struggle through pages of technical directions or trial or error to make a make a product work for their needs, is priceless for any society. "One of the notable features of the modern innovation system lies in the great many individuals and organizations who are willing to be so persuaded," Bhidé notes.

There's more to innovation than cutting-edge research. Pursuing and funding a single challenge, like a moon-landing program, can reduce opportunities in other areas. Innovators at mid or lower levels discern user desires everyday and make adjustments, adding features or streamlining procedures.

Conversely, though new technologies and better management reduce the proportion of scientists needed in a nation. "Public policies should stop trying to rob mid- and ground-level Peters to pay high-level Pauls," Bhidé writes. "A proper appreciation of the complexity and elusiveness of the modern innovation systems does not lead to new interventions, but rather suggests the removal of a long-standing bias in favor of high-level research and the use of lower-level innovations."

Bhidé compares Norway and Japan as evidence that "in an advanced economy, the effective use of IT in the service sector as important as - if not more important than - the capacity to develop new products": Norway, not a leader in technology development, has the highest labor productivity in the world, whereas Japan has low productivity growth despite strong IT investment and many patents. "To achieve commercial success, innovations have to be effectively and widely deployed," Bhidé concludes.

He warns that prescriptions to "improve" on innovation can do more to hurt than help - and that there are no tried-and-true patterns that produce an innovative employee base: Google started with venture capital while Microsoft did not; some new products or initiatives, like the US lunar program, emerge amid competition and conflict; others like the internet do not.

Attempts to target investment funds or policy on new technology - predicting the next big thing - is tricky, perhaps even foolhardy, because much is unknown about future needs or circumstances. Bhidé reminds that economist William Nordhaus pointed out that only 30 percent of goods and services used in 1991 bear resemblance to those of the 19th century. Innovation often centers on substitution, sometimes displacing products but also creating new wants: The invention of the automobile ended carriages, but the computer did not end the need for pencils, pens or telephones.

The message threaded throughout this book - anyone can innovate - is inspiring and needed during a time of economic downturn. This book could be a bestseller had Bhidé been more concise and playful, selecting the most intriguing anecdotes from history and his research on high-growth startups, addressing distinctions of firms backed by venture capital - perhaps pairing cases of innovation with missed opportunities, focusing on the odd contradictions among the tales of innovation. Some jargon-laden academic style may deter a few readers, but those who seek to understand the multiple layers of the mysterious process called innovation won't mind sorting through study findings, background research and footnotes.

No. of words : 851 Time taken to read : ____ minutes Reading speed : ____ w.p.m

Summary of the passage:

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Express the main idea of the passage in one sentence: _____

_____

PRACTICE PASSAGE – 30

From Bruce Lee in the early 70s starting us all off on the Martial Arts craze, to the spectacular Kung Fu fight scenes of The Matrix films, to the beautiful dialogue, photography and mysticism of Crouching Tiger, Hidden Dragon, and now to the Manga bloodfest of Taratino's 'Kill Bill Vol. I', the Martial Arts have been around in the West for a long time. I have been practising and training in Martial Arts for over 30 years and in that time I have learned much, not simply about Martial Arts as self-defence techniques, but about the 'ground of its being' and the ethics and aesthetics that underlie it.

It is usual to make the assumption that since the Martial Arts emerged in the east, they must carry with them some of the mysticism that goes with all things oriental (at least to a Western mind), and that they are deeply rooted in Zen Buddhist philosophy — at least if the breathtaking spectacularity of the Shaolin Monks is anything to go by. It is true that there is a different conception in the west of what underlies the Martial Arts in what we may broadly call a 'philosophical' way. But does the Martial Arts have a 'philosophy' in its own right? If we take philosophy in its literal translation from Greek 'love of wisdom' then the answer is a resounding yes, if we take the term philosophy as it is understood in the perennial philosophy of the West, then the answer is no.

Philosophy exists for many things: to understand the world, to comprehend things as they are in themselves, to detect errors in thought, to offer a solution to fundamental questions that beset humanity and so on. However, if we take the original translation 'love of wisdom' and apply it to the Martial Arts, and place the emphasis on the word wisdom, then Martial Arts has a rich, deep, and profound philosophy inherent in it.

The Martial Arts at the surface level are about learning those physical techniques that ensure our personal safety through acquiring the ability to defend ourselves against attackers and also to achieve some very remarkable feats of physical prowess (many people generally associate this with breaking things — 'tameshiriwara' is the proper term for it. But in modern study of Martial Arts that is 'old hat', (as Mr. Miayagi says in 'The Karate Kid' movie, 'Bricks don't hit back'.) Unfortunately, in the 30 odd years I have been studying the Martial Arts, I have never been be able to pause in mid-air, or stand on the branch of a tree — but isn't it wonderful cinema!!!. But what I have discovered in Martial Arts training and teaching, is that there is an understanding of the fundamentals of the human condition. This is why most practitioners of Martial Arts will say that they study a 'do' (doh), a 'Way', that it is not simply the physical techniques that they study and train hard in, but the Way of the Martial Arts.

No. of words : 501 Time taken to read : ____ minutes Reading speed: ____ w.p.m

Summary of the passage:

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_____

Express the main idea of the passage in one sentence: _____

EXERCISE – 1

(Recommended Time : 50 Minutes)

Directions for questions 1 to 30: Read the given passages carefully and choose the best answer for the questions that follow each passage.

PASSAGE – I

When science-fiction worlds introduce robots that look and behave like people, sooner or later those worlds' inhabitants confront the question of robot self-awareness. If a machine is built to truly mimic a human, its 'brain' must be complex enough not only to process information as ours do, but also to achieve certain types of abstract thinking that make us human. This includes recognition of our 'selves' and our place to the world, a state known as consciousness.

But what exactly might 'consciousness' mean for Artificial Intelligence (AI) in the real world, and how close is AI to reaching that goal? Philosophers have described consciousness as having a unique sense of self coupled with an awareness of what's going on around you neuro-scientists have offered their own perspective on how consciousness might be quantified, through analysis of a person's brain activity as it integrates and interprets sensory data.

However, applying those rules to AI is tricky. In some ways, the process abilities of AI are not unlike those that take place in human brains. Sophisticated AI systems use a process called deep learning to solve computational tasks quickly, using networks of layered algorithms that communicate with each other to solve more and more complex problems. It's a strategy very similar to that of our own brains, where information speeds across connections between neurons. In a neural network, deep learning enables AI to teach itself how to identify a disease, or win a strategy game against the best human player in the world.

But to accomplish these feats, any neural network still relies on a human programmer setting the tasks and selecting the data for it to learn from. Consciousness for AI would mean that neural networks could make those initial choices themselves, 'deviating from the programmers' intentions and doing their own thing'.

One of the pitfalls for machines becoming self-aware is that consciousness in humans is not well-defined enough, which would make it difficult, if not impossible, for programmers to replicate such a state in algorithms for AI. Scientists defined three levels of human consciousness, based on the computation that happens in the brain. The first, which they labeled 'C0,' represents calculations that happen without our knowledge, such as during facial recognition, and most AI functions at this level. The second level, 'C1,' involves a so-called 'global' awareness of information – in other words, actively sifting and evaluating quantities of data to make an informed, deliberate choice in response to specific circumstances. Self-awareness emerges in the third level 'C2,' in which individuals recognize and correct mistakes and investigate the unknown.

Once scientists can spell out in computational terms what the differences may be in humans between consciousness and unconsciousness, coding that into computers may not be that hard. To a certain extent, some types of AI can evaluate their actions and correct them responsively – a component of the C2 level of human consciousness. But we cannot expect to meet self-aware AI anytime soon.

1. The main conclusion of the passage is that AI
- (A) has a long way to go before it can parallel human intelligence.
- (B) has a potential to beat human intelligence within foreseeable future.
- (C) has acquired the consciousness with a better judgment than humans have.
- (D) has acquired the ability to select data it can learn from.

2. The author mentions neuro-scientists in the second paragraph to indicate that
- (A) consciousness is hard to achieve in relation to AI because of technical limitations.
- (B) the definition of conscious is inadequate, given the need for accuracy to incorporate it in AI.
- (C) the human brain has substantial difficulty in integrating and interpreting sensory data.
- (D) the attempt for the quantification of consciousness may present a new outlook in relation to AI.

3. According to the passage, making machines self-aware is difficult because
- (A) for the three levels of human consciousness, scientists developed algorithms only for the first two levels.
- (B) for want of clear-cut definition, development of algorithms to serve the purpose is difficult.
- (C) for neuro-scientists, the distinction between consciousness and unconsciousness is not clear.
- (D) for computers, self-evaluation has become possible to some extent.

4. Which of the following can be inferred basing on the information given above?
- (A) Computer scientists have focused too much on the definition of consciousness, at the expense of other important aspects to be considered.
- (B) AI cannot become self-aware because development of algorithms related to all components of C2 level of consciousness is not a realistic possibility in the near future.
- (C) Exploration of the unknown is beyond the reach of the human consciousness.
- (D) Deep learning in humans and that in AI are radically different.

5. According to the passage, all of the following are attributes of the state of consciousness EXCEPT
(A) some cognitive actions happen without any conscious effort and knowledge.
(B) in higher levels of consciousness, self-evaluation and self-correction are possible.
(C) its processing abilities are radically different from the ways AI is likely to process.
(D) perception and decision making are interrelated in the state of consciousness.

6. Which of the following best describes the function of the second paragraph in the context of the whole passage?
(A) It raises the questions that point out the obstacles needed to overcome in order to achieve fully functional AI.
(B) B. It raises some questions that are pertinent to bring out the difference between the philosophical and scientific perspectives of consciousness.
(C) It points out shortcomings that are prevalent in the academic disciplines discussed in the passage.
(D) It raises questions that point out a demerit of considering sensory data, which is essential for AI.

PASSAGE – II

Centuries ago, "the commons" referred to the land where animals belonging to people in the community would graze. As the name implies, the commons did not belong to any one farmer. All were better off for having access to it. Industries too have commons. A foundation for innovation and competitiveness, a commons can include R&D know-how, advanced process development and engineering skills, and manufacturing competencies related to a specific technology.

Such resources may be embedded in a large number of companies and universities. Software knowledge and skills, for instance, are vital to an extremely wide range of industries. The knowledge, skills, and equipment related to the development and production of advanced materials are a commons for such diverse industries as aerospace, automobiles, medical devices, and consumer products.

More often than not, a particular industrial commons will be geographically rooted. For instance, northern Italy is home to a design commons that feeds, and is fed by, several design-intensive businesses, including furniture, apparel and household products. The geographic character of industrial commons helps explain why some companies in certain industries tend to cluster in particular regions.

What about the popular notion that distance and location no longer matter, or, as Thomas Friedman put it, "the world is flat"? While we agree with the general idea that geographic boundaries to trade are falling and that the global economy is more intertwined than ever, the evidence suggests that when it comes to knowledge, distance does matter. Detailed empirical work on knowledge flows among inventors shows that proximity is crucial. Other studies show that the main way knowledge spreads from company to company is when people switch jobs. Even in America's relatively mobile society, it turns out that the vast majority of job hopping is local.

This explains why commons persist in specific locations in an era when huge amounts of scientific data can be accessed easily from anywhere. For example, even though virtually all the raw data from the Human Genome Project is available electronically all over the world, the drug research it has generated is heavily concentrated in Boston, San Diego, and San Francisco areas.

Once an industrial commons has taken root in a region, a powerful virtuous cycle feeds its growth.

Experts flock there because that's where the jobs and knowledge networks are. Firms do the same to tap the talent pool, stay abreast of advances, and be near suppliers and potential partners. Novartis, a Swiss pharmaceutical giant, for example chose to move its research headquarters from Basel, Switzerland, to Massachusetts, to be close to universities and research institutes that are global leaders in bio-sciences. These dynamics make it difficult for other regions that do not yet have a vibrant biotechnology commons to attract bio-tech companies, even with generous incentives.

7. The central idea of the passage is that
(A) The concept of commons is applicable more to tangible resources than to intangible resources.
(B) Despite globalization, proximity is still a crucial factor, resulting in concentration of workforce and companies.
(C) The localization of industries and companies result in economic disparities, which cannot be corrected even with generous incentives.
(D) Industrial commons and commons in traditional sense are fundamentally similar because they allow free access to resources.

8. Which of the following sentences, if added to the third paragraph, would most logically continue the idea of the paragraph without intruding the flow of the idea in the passage?
(A) The commons nonetheless present some or other kind of benefit to the company.
(B) Being close to the commons is a source of competitive advantage.
(C) We, however, seldom ignore some irregularities in the process.
(D) Distance does play a role as per the following reasons.

9. Which of the following, if true, best explains the finding of the empirical work on knowledge flows given in the fourth paragraph?
(A) The explosion of internet and IT is so extensive that even tens of thousands of pages of scientific information can be transferred in seconds.
(B) The expansion of science and technology is quite rapid and the growth has been exponential during the last few decades.
(C) Much technical knowledge, even in hard sciences, is highly tacit and therefore far more effectively transmitted face-to-face.
(D) Companies in a certain industry do not need to be in a single location to share knowledge and information.

10. It can be inferred that the word 'this' in the first sentence of the fifth paragraph can refer to which of the following?
(A) Ease of sharing knowledge.
(B) Existence of commons
(C) Mobility in workforce
(D) Huge amounts of scientific data.

11. The Novartis example given in the last paragraph will become irrelevant to the context if which of the following assumptions is correct?
(A) Novartis had to spend millions of dollars for the relocation to Massachusetts, an amount far more than the money it would spend on research.
(B) Novartis is probably the only company that has shifted its total research operations to a totally new territory.
(C) Detroit became the hub of automobile industry because the raw material and skilled workforce needed are available in the surrounding areas.
(D) Factors other than research play a crucial roles in the profitability of Novartis, forcing the Company take major decisions.

12. The author mentions software and development and production of advanced materials to indicate that
(A) the existence of commons benefits a wide range of industries.
(B) this existence of commons is confined to a large number of companies and universities.
(C) the existence of commons can be justified only in case of certain type of industries.
(D) the existence of commons is not justified because of the geographic concentration it leads to.

PASSAGE – III

The origin of Earth's water is an unsolved mystery, solving which may be a key to assessing the evolutionary history and modern structure of the Earth and has implications for how much water Mars and other planets accreted. As water is one of the prerequisites to life's birth, the grand topic also bears fundamental importance to astro-biology.

A successful theory of how the Earth acquired its water must explain both the amount and isotopic composition of hydrogen on the Earth's surface and its mantle. Because hydrogen is easily oxidized to form water, the origin of the Earth's water is equivalent to the sources of its hydrogen. In addition to one *ocean* of water on the Earth's surface, another several oceans' worth of hydrogen as OH and H2O are believed to reside in the Earth's mantle.

The current consensus is that the Earth acquired most of its water by accretion of carbonaceous chondrite material from beyond the snow line in the solar nebula. Many scholars find it likely in their simulations of planetary accretion that the Earth could have accreted a single planetary embryo which would have provided the Earth with many tens of oceans of water. This consensus is bolstered by the observation that structurally bound water in carbonaceous chondrites, on average, has isotopic composition of hydrogen similar to that of the terrestrial water.

This consensus view implicitly makes two assumptions, which may or may not be justified. First, most models discount the contributions to the Earth's hydrogen from in gassing of nebular H2 and H2O. But in fact it has long been recognized from noble gas isotopic ratios that the Earth's interior contains some He and Ne contributed from the solar nebula. Second, in noting the isotopic match between chondrites and the Earth, the consensus view presumes that the hydrogen in the Earth's mantle and surface reflects the entirety of its hydrogen. In fact, the Earth's core must contain a significant fraction of light elements such as silicon, oxygen and sulfur. This inventory may include hydrogen, although first-principles molecular dynamics calculations yield opposing and controversial conclusions about the amount of hydrogen that can match seismic data.

13. The passage is primarily concerned with
(A) solving a mystery about the origin of water.
(B) calling into question a contemporary hypothesis.
(C) qualifying a current hypothesis.
(D) explaining assumptions behind a current hypothesis.

14. The author's tone towards current consensus is
(A) enthusiastic
(B) critical
(C) ambivalent
(D) sarcastic

15. According to the passage, solving the mystery mentioned in the first paragraph will help in understanding all of the following EXCEPT
(A) sources of Earth's hydrogen.
(B) isotopic composition of hydrogen.
(C) some aspects of astro-biology.
(D) geological evolution.

16. The author mentions noble gas isotopic ratios of Earth's interior to suggest the view that
(A) the contributions of Earth's hydrogen from ingassing of nebular hydrogen and water have

been underestimated by models supporting the consensus view.
(B) nebular ingassing of hydrogen and water contributed little to the hydrogen present in the Earth's atmosphere and the Earth's mantle.
(C) structurally bound water in carbonaceous chondrites has isotopic composition of hydrogen isotopes on the Earth.
(D) the assumption on which the consensus view is based is correct only in some cases.

17. Which of the following, if true, would most weaken the author's questioning of the second assumption?
(A) The first-principles molecular dynamics calculations yield conclusions that are definitive and that are beyond controversy.
(B) Earth's surface and mantle contains significantly high amount of hydrogen when compared with the amount of hydrogen in the Earth's core.
(C) The isotopic configuration between chondrites and the Earth indicates that hydrogen in the Earth's mantle and surface does not reflect the total amount of hydrogen present on Earth.
(D) The consensus view is mostly criticized for its inaccuracy in predicting the distribution of hydrogen on the Earth's surface.

18. The author mentions first-principles molecular dynamics calculations yielding opposing and controversial conclusions in order to
(A) add further evidence in support of his criticism.
(B) state a point that may work against his criticism.
(C) bring out the difference between the two assumptions he attacks.
(D) sum up the argument presented all through the passage.

PASSAGE – IV

In a comprehensive study, researchers have found that tropical forests across South America's Andes Mountains are responding to warming temperatures by migrating to higher, cooler elevations, but probably not quickly enough to avoid the loss of biodiversity, functional collapse, or even extinction.

Like all other species around the world, these trees have been moving upward. But unlike species from the world's temperate forests, which are far more accustomed to dramatic season shifts in temperate regions, tropic trees are running into environmental roadblocks at higher, cooler elevations that are thwarting their migration and threatening their survival. The ecosystem of Andes can change very fast, and very dramatically and these changes, called ecotones, appear to be blocking species migrations, making it hard for plants to relocate their population and creating an additional roadblock for scientific understanding.

Aiming to fill this void, the researchers have created a new database that tracks the livelihoods of thousands of highland trees in 186 plots of land situated throughout what is known as the Tropical Andes Biodiversity Hot-spot. Starting from the elevations from 300 to over 3000 meters above the sea level, most of the plots are about the size of an American football field, surely microcosms of nature.

Using the latest modeling techniques that combined the data from all the plots into a single comprehensive analysis, the researchers confirmed that, as temperatures in the high Andes rise due to global warming, heat-loving tropical trees are seeking more optimal conditions by migrating to higher and cooler altitudes. Consequently, the abundance of these heat-loving species in the study plots is increasing over time while, in contrast, the abundance of the cold-loving species is declining.

The researchers were also surprised to learn that, while this phenomenon of 'temperature-related' migration is widespread, the rates of the change in forest composition are not uniform across elevations. They suggest ecotonal roadblocks may be, in part, responsible. In other words, as Andean species get pushed up-slope by rising temperatures, they may quickly find themselves out of their comfort zones as other aspects of their habitat, such as rainfall and cloud cover, become intolerable.

19. Which of the following best describes the function of the first paragraph in the context of the whole passage?
(A) It presents an environmental concern, whose implications are discussed in the rest of the passage.
(B) It presents an observation in relation to environment, and certain objections to that observation are presented.
(C) It presents the main idea of the passage, which is explained in the rest of the passage.
(D) It introduces a topic, different opinions about which are presented in the later part of the passage.

20. Which of the following can be most logically referred to by 'this void' mentioned in the third paragraph?
(A) absence of database in relation to evolution of forests.
(B) absence of information about the reasons behind the sudden changes happening in the Andes ecosystem.
(C) lack of comprehensive information about the way ecotones prevent species migration.
(D) lack of information about the variety in the environmental roadblocks discussed in the earlier paragraph.

21. All of the following can be inferred from the passage EXCEPT
(A) Conditions favorable to one kind of species might be unfavorable to some other kind of species.
(B) Plants need various conditions to be favorable to thrive, not just one.
(C) The higher cooler altitudes of Andes have become a hostile zone for tropical forest trees facing global warming.
(D) Global warming has a potential to cause the extinction of some species.

PASSAGE – V

The first time I took a calligraphy course was about a year ago, and the decision was quite hard. I was sure that it would be painstaking and that I would need excellent handwriting to learn the art. How mistaken I was!

But, I have better understood what calligraphy *is* by understanding what it *is not*. It is not *just* about decorated text, nor is it only about the use of letters as ornaments. True, calligraphic letters and pages are very often dressed up with some form of decoration; gold color, pattern, pictures, flourishes etc. but this ornamental layer only decorates the underlying FORM. There is a big difference between a beautiful *form* and a beautiful *ornament* on the top of the form. Calligraphy is about symbols themselves being beautifully formed and arranged. Naked, undecorated calligraphy should look good just as it is, in the same way that athletes, models, and healthy people would look good without their clothes on.

Is calligraphy beautiful handwriting? Not exactly and not entirely. It is more than just that. It is true that the derivation of the word translates simply as 'beautiful writing'. But the word has taken on a larger meaning. Bear in mind that the first goals of handwriting are to be quickly and easily written and accurately read. Beauty, personality and artistic impact are not as important in handwriting as are clarity and speed. So, although calligraphy is a kind of handwriting, and some handwriting is calligraphic in appearance, they are not the same. It is the difference between 'writing as an art form' and 'artistic-looking handwriting'. Calligraphy aims to produce an 'art' reaction, in which a deeper meaning is communicated from artist to viewer, and the viewer feels invited to think a new thought in response. Handwriting, by contrast, aims to be read.

22. The central idea of passage is that
- (A) writing as an art form attains the level of calligraphy only with proper decoration.
- (B) the art of calligraphy lies in clarity, even without much or any decoration.
- (C) calligraphy has not remained a popular art form because of its intricacies of decoration and clarity.
- (D) calligraphy is a tangential art form because its decoration has to gain precedence over clarity.

23. The author mentions 'athletes, models, and healthy people' to indicate that
- (A) calligraphy uses symbols that are not generally used even in beautiful handwriting.
- (B) nakedness without any ornamentation is a form of calligraphy.
- (C) the art of calligraphy is not so much an ornamentation of letter as it is beautiful rendering of letters.
- (D) use of ornamentation spoils the clarity, the very aim of handwriting.

24. The author's conclusions about calligraphy are based on the assumption that
- (A) the more ornamental one's writing is, the more calligraphic his writing proves to be.
- (B) good form in writing facilitates clarity of handwriting, making reading a pleasant experience.
- (C) calligraphy is an art form that should be encouraged despite the painstaking nature of the art.
- (D) calligraphy is just one facet of handwriting that has clarity and ornamentation.

PASSAGE – VI

There are those who believe that philosophy of religion was made pointless by Hume and Kant. These two thinkers are widely thought to have driven the final nail into the coffin of rational theology and to have shown not only that all previous attempts to prove the existence of God had failed, but that all future attempts were bound to suffer the same fate.

Not all contemporary philosophers, of course, accept that Kant and Hume succeeded in refuting such arguments. Some thinkers have no particular regard for the eighteenth century Enlightenment, in any case: Thomism is still alive, respected in certain quarters, and quietly confident of the ultimate intellectual bankruptcy of secular, atheistic philosophies. Furthermore, Kant was, in fact, a pious Christian. and it is not certain that even Hume was an atheist, though it is quite likely. Nevertheless, since the eighteenth century, rational theology has lost much of its confidence.

But nowadays, even among many who wish that philosophy could do more for religion, there is an air of quite resignation and a reliance upon confused and feeble platitudes. This atmosphere contains the oxygen for anti-religious triumphalism, as manifested in particular by the likes of Dr. Richard Dawkins, the Oxford zoologist and freelance evangelizing atheist. Those like Dawkins – who often resort to arguments which are superficial and philosophically naive – are made to seem victorious by the lack of confidence and intellectual confusion of some of those who speak for orthodox religion.

25. The author of the passage can overall be considered a supporter of
- (A) eighteenth century Enlightenment.
- (B) rational theology.
- (C) orthodox religion.
- (D) anti-religious triumphalism.

26. The author mentions Dawkins in the last paragraph to support the view that
- (A) The resignation of supporters of religion has made them depend on feeble platitudes.
- (B) The atmosphere of strong rational theology has made it possible for the likes Dawkins.

(C) The weakness in philosophical justifications of religion has made anti-religious propaganda successful.
(D) The anti-religious arguments are superficial and philosophically naive.

27. The author's criticism of Kant on the ground that he is himself a pious christian is logically questionable because
(A) the author is attacking a personal trait of Kant, instead of attacking his argument against rational philosophy.
(B) the author assumes that one who posits a view cannot hold a view that is quite contrary to that view.
(C) the author attacks Kant because the author himself believes in rational theology.
(D) the author's opinion and criticism are outdated because they do not comply with the current standards of critique.

PASSAGE – VII

The world has recently been shaken by an upheaval in the financial sector comparable to that of 1929. These events in the world financial markets have, to say the least, given economists pause for reflection. It is worth giving a schematic account of the unfolding of this crisis to see how it can be reconciled with standard economic theory or whether a serious rethinking of our theory is called for. Various explanations have been given for the origins of the collapse. One argument is that the Fed simply kept interest rates too low and this made it too easy for indebtedness to rise to unprecedented levels. Some argue that the deregulation of financial institutions permitted excesses, while some argue that government policy which encouraged even the poor to aspire to own their own homes was a major factor in the housing bubble.

Whatever may be the origins of the problem, one can give a simple and persuasive account of the evolution of the crisis. Individual banks extended credit to those wishing to buy homes with less and less regard for the capacity of the borrowers to repay. If the unhappy borrower did not fulfill his obligations, the bank recovered the home, the price of which was rising. Despite the cost of foreclosure, the underlying asset guaranteed that the loss for the bank was not significant. This led to a rapid expansion in housing loans. However, with a weakening of the US economy, the number of defaulters grew and, worse, prices in the housing market no longer rose. Many major banks found that their positions were more than delicate and began to seek ways of redressing them. However, the crucial problem was that banks did not know which of their counterparts were in trouble and thus stopped lending to other banks. The freezing of the inter-bank market brought the whole system since banks are constantly in need of being able to finance various transactions and habitually borrow from each other to do so.

28. Which of the following best describes what the passage is trying to do?
(A) Classical economic theory cannot give an adequate explanation for the housing bubble that resulted.
(B) Despite various explanations for the origin, banks' hasty decisions that did not predict economic downturn precipitated the financial crisis.
(C) The freezing of inter-bank market is the primary reason for the banks' inability to finance various transactions.
(D) The unfolding of the banking crisis is primarily from government policies promoting home ownership.

29. All of the following have accelerated the financial crisis EXCEPT
(A) improper selection of borrowers.
(B) stagnation of housing prices.
(C) high interest rates for housing loans.
(D) absence of flow of cash between banks.

30. Which of the following can be inferred from the passage?
(A) The standard economic theory cannot adequately explain the origin of the financial crisis.
(B) The financial crisis worsened because banks did not attempt to address the problem.
(C) Banks were able to meet their financial obligations in cases not related to housing loans.
(D) The financial crisis originated from a single factor that had been neglected by the government.

	Passage 1	Passage 2	Passage 3	Passage 4	Passage 5	Passage 6	Passage 7
No. of words	491	458	357	350	303	242	332
No. of Qs.	6	6	6	3	3	3	3

EXERCISE – 2
(Recommended Time : 40 Minutes)

Directions for questions 1 to 24: Read the given passages carefully and choose the best answer for the questions that follow each passage.

PASSAGE – I

Why do lions live in groups? Lions are spectacularly sociable: they hunt together, raise their cubs in nursery groups and defend joint territories. The traditional explanation for lion sociality has been cooperative hunting, but recent research shows that they do not hunt as cooperatively as believed. In fact, lions only hunt cooperatively when they need to. If their best chance for meal is a large dangerous prey like a Cape buffalo, lions certainly do pull together. But if the prey is relatively easy for a singleton to capture, the rest of the pride is more likely to cheer on their hunting companion rather than join the hunt. Hence we often see a lone female pursuing a warthogs while the rest of the pride merely watches.

Consequently, individual lions don't always feed better in larger groups. Food availability being highly seasonal, during the 'lean season', solitary females (who can catch warthogs by themselves) feed just as well as individuals in groups of five females (which are large enough to subdue buffalo); but groups of two to four females suffer lower food intakes. The evolution of sociality would have required a strong advantage for ancestral lions to start living in pairs of or trios, so group hunting is not the answer.

Nursery groups form whenever pride-mates give birth within a few months of each other. After hiding their cubs for the first few weeks of life, mothers bring them to the rest of the pride and nursing mothers become almost inseparable for the next two years. But the members of nursery groups suffer lower feeding success, so the behavior does not derive from any advantage of group foraging. Instead, the nursery group is a defensive formation.

Resident males are the fathers of all the cubs sired during their tenure. Outside males are always looking for mating opportunities. If they encounter a mother with small cubs, they will kill the cubs to induce her to return to mating condition. Resident males patrol the edges of the pride territory, and outside males sometimes encounter the nursery group unaccompanied. Cubs in a nursery group are far more likely to survive these encounters than cubs raised by singleton mothers. Groups of mothers can successfully counter-attack the invading males, whereas a female has no chance one-on-one against a fully grown male. Thus, nursery group formation clearly increases female reproductive success. However, most other felids, such as leopards, tigers, etc, also show similar infanticide by incoming males. So defense against infanticide doesn't explain why lions are the only social cats.

1. The primary purpose of the passage is to
- (A) explain the reasons for evolution of lion cooperative hunting.
- (B) illustrate the feeding advantage for cubs in lion societies.
- (C) question the traditional explanation for lion sociality.
- (D) compare sociality in lions and other cat families.

2. Which of the following, if true, would most undermine the author's rejection of group foraging as an advantage of sociality found in lions?
- (A) The cubs raised individually are far less successful in feeding than those raised in nursery groups.
- (B) When female lions do not group their cubs in nursery groups, they give birth to more number of cubs than when nursery groups are formed.
- (C) Cubs raised in nursery groups have a stronger inclination to form a pride than those raised individually.
- (D) More female lions are found when they tend to encourage nursery groups than when they do not encourage nursery groups.

3. The author mentions felids such as leopards, tigers etc, to indicate that
- (A) nursery group formation gives adaptive advantage in the reproduction of lions.
- (B) these felids have the ability to attack successfully one-on-one against fully grown males, defending their cubs.
- (C) sociality in lions cannot be fully explained by reproductive success in lions.
- (D) their reproductive success is less that that of female lions forming a pride.

4. Which of the following can be expected of sociality to have a strong advantage for the ancestral lions in hunting?
- (A) Food availability was not as seasonal as it is today and food availability was almost evenly spread across the year.
- (B) A group of five lions were less successful in hunting than a group of three or four, but a group of two was more successful than a single lion.
- (C) Food intake was higher in a pair than it was in a single animal and food intake was higher in a trio than in a pair.
- (D) A single lion was as successful in hunting as is a group of lions, and some times, the former is more successful than the latter.

5. The passage suggests all of the following EXCEPT
- (A) In lions, females are more active in hunting than males.
- (B) The size of the prey decides whether lions undertake cooperative hunting or solitary hunting.
- (C) Lion cubs in nursery groups have less survival chance than those being brought up individually.
- (D) Infanticide in lions can be prevented more effectively by a group of mothers than by a single mother.

PASSAGE – II

How did the Harappans take the great leap from self-contained stone-age agricultural societies to a trade-oriented, luxury-conscious, sophisticated, urban civilization that gave the world the concept of town planning? Analyzing the evidence from various sites, Possehl found that between 2600 BC and 2500 BC, the Harappans experienced a century of cathartic changes. Before this, he finds, no breadboard model of the expansion to come, be it the invention of writing, or the awesome town-planning techniques. A tremendous jump in human ability is evident. But what or who caused it?

In the past, the reputed British archaeologist Sir Mortimer Wheeler argued that ideas have wings and that the Harappans were influenced by their trade contracts with the Sumerians. But the diffusion theory of civilization, as it is called, is slowly being given the heave-ho.

Cambridge historian Raymond Allchin, an authority on the subject, says: "We are now beginning to see the foundation being laid in the preceding 100 to 200 years in smaller sites. There appears to be a completely organic process of growth that threw up the Harappan culture as we know it."

The evidence of that process continues to be scanty. Yet, in Kurnal in Haryana, archaeologists recently found what are known as proto-Indus seals. On pottery of many of the smaller sites in both India and Pakistan, graffiti similar to some figures on the script begin to appear.

And at Dholavira and at Banawali in Haryana, the distinction between the citadel and the lower city is beginning to evolve. There is, however, a huge jump in scale in such activity in those critical 100 years.

For, in Harappa as in most Indus sites, the distinct grid iron pattern for streets, a scientific system of drainage that linked up to even the smallest house in the lower city is established, precise weights and measures begin to circulate, and the writing system evolved. So, were the Harappans copycats?

Archaeologists say that the Indus people couldn't have copied their town-planning from Egypt and Mesopotamia because in those civilizations, the roads meandered like village streets. Nor was the writing similar to Sumer's cuneiform or the Egyptian hieroglyphics. The Harappans had their own distinct style.

Lal explains the dramatic change as a result of centuries of growth reaching a critical mass that caused an unparalleled urban explosion. Trade, he believes, was the driving force of the revolution. Even a skeptic like Possehl maintains that 'these are indeed an expression of the Indian genius'.

6. The author mentions 'meandering of streets of Egypt and Mesopotamia' to indicate that
- (A) Harappan civilization was more complex than other civilizations.
- (B) Harappan civilization served even the smallest houses.
- (C) the technology of Harappa in building streets was superior.
- (D) the urban planning at Harappa was a typical one.

7. The author mentions 'proto-Indus' seals in paragraph 4 to substantiate
- (A) the diffusion theory of civilization proposed by Wheeler.
- (B) organic process of growth of Harappan culture.
- (C) the existence of pottery on many of the smaller sites.
- (D) the extent of region across which Indus Civilization was prevalent.

8. In the context of the whole passage, which of the following best describes the function served by the last paragraph?
- (A) It answers the question raised in the first paragraph.
- (B) It gives an exception to the general explanation in the earlier paragraph.
- (C) It undermines the importance of evidence given in the earlier paragraphs.
- (D) It brings out the impossibility of answering the question raised in the first paragraph.

9. According to the passage, the current scholarly consensus seems to undermine the credibility of
- (A) the indications of the state of development of the Civilization between 2800 BC and 2600 BC.
- (B) the diffusion theory of civilization.
- (C) the organic process of development of civilization.
- (D) the significance of the proto-Indus seals.

10. Which of the following best explains 'breadboard model' mentioned in the first paragraph?
- (A) A model at higher levels of sophistication to simplify the details.
- (B) A model that mixes different aspects to arrive at a unified aspect.
- (C) An experimental attempt at primitive levels to reach higher levels of sophistication.
- (D) An external influence that caused the transition.

PASSAGE – III

The universe is not perfect, and that's why you exist. There were tiny wrinkles at the beginning of space and time, and these led to imperfections in the smooth face of the early Universe. In some regions, there was a bit more matter, in others a bit less. This slight difference multiplied as the gravity of the rich regions pulled in the matter from poorer regions. As in real life, the rich got richer. But this is why the cosmos is dotted with stars and galaxies. Every single speck of light you've ever seen in the night time sky is evidence of the Universe's flaws.

In one small gravity well, dust and gas collapsed and piled on top of itself to create a ball, and then a larger ball, and eventually a star. This is our star, and there is nothing special about it. But its ordinariness is the fuel for all the life we've ever known. In the sun's hot center, protons are flung around so violently by the heat that they overcome their natural repulsion. When they come together, they make something less than the sum of their parts. The difference is translated into energy, some of which comes to you. You are fortunate to benefit from an enormous nuclear reactor in the sky. If the sun were made of coal, it would have burned out sixty-five thousand years after it formed. Everything you've ever eaten or drunk, every move you've ever made, every beautiful thing you've ever seen is because of a mediocre star in an unexceptional galaxy.

You live on a small rock not too close and not too far from the Sun. you go around it once per year in an almost perfect circle, the year marked in seasons caused by axial tilt. Your planet can and does wobble in its orbit over tens of hundreds of thousands of years, with the circle becoming an ellipse, the tilt becoming larger or smaller, and the North Star altering between Polaris and Vega. Any small shift in the orbital parameters can lead to massive climatic shifts, blanketing the planet in glaciers. You are lucky to live in an inter-glacial period, a respite from the Ice Age that has lasted longer than human civilization, and may outlast us too.

11. The main idea of the passage is that
- (A) slight imperfections in the cosmos have created life and indicate the imminent danger for mankind.
- (B) slight imperfections in cosmos, besides resulting in Earth and life, have profound effects on both.
- (C) gravity plays an important role in sustenance of life on Earth and may be disrupted by imperfections in the Universe.
- (D) the existence of human kind is under threat due to the imperfections, which are worsened by human activities.

12. The author gives the hypothetical situation of the sun being made of coal primarily in order to
- (A) imply how the natural repulsion between protons is overcome.
- (B) emphasize the near-perpetual nature of solar energy.
- (C) indicate that only a fraction of energy produced by the Sun reaches the Earth.
- (D) explain the diverse uses that the Solar energy is put to.

13. The expression 'the rich got richer' is a metaphor to
- (A) regions with more matter engulfing regions of less matter.
- (B) regions with more gravity engulfing regions of less gravity.
- (C) regions with more matter acquiring more of it.
- (D) regions with more matter becoming cognate with regions with less matter.

14. The passage suggests all of the following EXCEPT
- (A) nuclear reactions in the Sun involve fusion of atomic particles.
- (B) energy emitted by the sun is useful in limited ways.
- (C) in the initial stages, the universe was homogeneous in its composition.
- (D) creation of climatic conditions favorable for life was a coincidence.

PASSAGE – IV

Woody Allen once said that 80% of success in life can be attributed to simply showing up. But a growing body of research indicates that – in workplace, at least – this wry estimate may be somewhat optimistic. Researchers say that *presenteeism* – the problem of workers' being on the job but, because of some medical conditions, not fully functioning – can cut individual productivity by one-third or more. In fact, presenteeism appears to be a costlier problem than its productivity-reducing counterpart, absenteeism. And, unlike absenteeism, presenteeism isn't always apparent: you cannot tell when – or how much – a medical condition is hindering someone's performance.

However, a handful of companies are recognizing the problem and trying to do something about it. That entails determining the prevalence of health conditions that undermine job performance, calculating the related productivity loss, and combating that loss in cost-effective ways. This a new area of study, and questions remain around a host of issues, including the central one: the exact degree to which various illnesses reduce productivity.

Presenteeism, as defined by researchers, isn't about malingering (pretending to be ill to avoid work duties) or goofing off on the job (surfing the Internet, say, when you should be preparing a report). The term – which has gained currency despite some academics' uneasiness with its somewhat catchy feel – refers to productivity loss resulting from real health problems. Underlying the research on presenteeism is the assumption that employees do not take their jobs lightly, that most of them need and want to continue working if they can.

Researchers have also tried to quantify the impact of disease in general on workplace productivity. Using the same methodology employed to gauge the cost of depression and pain, a research team calculated the total cost of presenteeism in the United States to be more than $150 billion per year. Furthermore, most studies confirm that presenteeism is far more costly than illness-related absenteeism or disability. That is, less time was actually lost from people staying home than from them showing up but not performing at the top of their game.

What may be more significant – but is also controversial – is that presenteeism appears to cost companies substantially more than they spend directly on medical treatment and drugs. (It's important to note that many presenteeism studies, though conducted by academics or health management consultants, are proposed and funded by pharmaceutical companies hoping to show that certain medications are worth paying for because they will increase worker productivity

by ameliorating symptoms of illness.) Typically, studies show that presenteeism costs employees two to three times more than direct medical care, which is paid for by companies in the form of insurance premiums or employee claims.

But such findings, while striking, are academic until a company takes a close look at the effects of illness on productivity of its own workforce. Bank One, for instance, has calculated its direct and indirect health costs and found that the direct spending represents only a fraction of the company's total costs.

15. Which of the following best states the author's main point?
(A) Present studies conclusively prove that presenteeism is a far higher cost than is absenteeism.
(B) The assertion of current wisdom is that presenteeism, despite its intangible nature, can be accurately measured.
(C) Though tentative, studies show that presenteeism is more a significant cost to companies than expected.
(D) As per the recent studies, presenteeism is likely to affect the profitability of companies if adequate health measures are not taken up.

16. According to the passage, the estimation of cost resulting from presenteeism is likely to be controversial because
(A) the definition of presenteeism is fluid and open to both question and correction because of the intangible nature of the concept.
(B) the studies on presenteeism arrived at different values for the cost incurred by presenteeism, making consensus impossible.
(C) only a handful of companies now recognize the problem and try to arrive at a solution for the problems of presenteeism.
(D) the organizations funding the studies on presenteeism are business entities with questionable commitment to academic advancement.

17. The author uses the word 'academic' in the last paragraph to imply that
(A) the studies concluding about the presenteeism costs exaggerate the actual costs incurred during its existence.
(B) the presenteeism costs being only a fraction of a company's total cost, they cannot significantly influence the profits of that company.
(C) in the current stage, the cost estimates for presenteeism are more of theoretical interest than of empirical interest.
(D) the direct costs of a company in providing health care are likely to be less than those of presenteeism.

18. As per the information given in the passage, we can expect that the significance of presenteeism prevention measures can become economically questionable for the company, if
(A) employees who are benefited from the presenteeism prevention measures are likely to be loyal to the company.
(B) companies have to spend a substantial portion of their total cost on direct health care for their employees.
(C) small amounts to be spent on more number of employees to prevent presenteeism can accrue to amounts far more than the amount to be spent on direct medical care for fewer number of employees.
(D) the definition of presenteeism and its quantification are questionable under the present state of the development of the concept.

19. According to the passage, a company trying to minimize presenteeism costs should do all of the following EXCEPT
(A) identifying medical problems that reduce worker productivity.
(B) clearly quantifying the amount lost due to presenteeism.
(C) allotting funds for the prevention of presenteeism in a judicial way.
(D) offering more direct health care for its employees.

PASSAGE – V

The global warming effect of refrigeration is caused not just by energy required to operate it, but also by the refrigerants used. The latter, for commercial systems, account for about 15% of greenhouse gases emitted globally. Hydrofluorocarbons (HFCs), which are currently the standard refrigerant fluid, can have very high global warming potential; a switch to refrigerants such as hydrocarbons, which have a zero global warming potential can thus lead to overall greenhouse gas reductions, provided the refrigeration system has been designed properly and with their use in mind. Further efforts are needed to improve the design of HFC-free systems. Regulations tightening the use of F-gases (other forms of fluorocarbon refrigerant, also with high global warming potential) will also come into force over the next few years. While F-gas regulation does not prohibit their use, they place tight control on leakage and require business to use only qualified people to carry out associated work.

One of the obstacles to improving energy efficiency is that current business thinking favors short-term gains over longer-term savings both in energy and money. It can be the case that even when the long-term advantages are quantified and set out, the desire to cut costs in the short term, or to buy a familiar product is overwhelming. Traditional industry purchasing relationships also have a part to play – a product is bought from the same supplier time and again because it offers familiarity and predictability. Those responsible for maintaining and servicing the equipment may also have a stake in the continuation of less efficient equipment since this is where their expertise lies. Hence, the same less efficient products continue to be manufactured and used even where better alternatives are readily available.

Collaborative action by the various players in the cold chain – including the manufacturers of the relevant technology, those responsible for servicing it and of course the end users themselves need to work together to break out of this systemic inertia. Another approach that offers potential is for end users to contract out the business of 'coldness' to Energy Service Companies (ESCOs). A retailer using an ESCO, for example, would not so much buy refrigeration equipment, as a cooling service. It could specify certain parameters and then leave the ESCO to specify, provide, maintain, monitor, and improve on the refrigeration equipment. Since the ESCO, under the terms of its contract, would be picking up the energy bills, it would in their interests to ensure that both the equipment and the management of that equipment are as efficient as possible.

20. The passage is primarily concerned with
(A) discussing the effect of refrigeration on global warming.
(B) suggesting ways to address an environmental concern.
(C) comparing different technologies aimed at minimizing global warming.
(D) criticizing global policies that exacerbate the problem of global warming.

21. According to the passage, all of the following are impediments to enhancement of energy efficiency EXCEPT
(A) focus on short-term advantage of cost minimization.
(B) businesses' disregard of lasting effects of inefficient technologies.
(C) paucity of better alternatives
(D) disinclination of businesses to form new purchasing relationships.

22. The passage suggests that service engineers do not encourage alternatives to existing refrigeration technologies because
(A) they have better profits in servicing the existing machinery.
(B) companies prefer short-term term benefits, rather than long-term benefits.
(C) their skills may become obsolete after the introduction of new technologies.
(D) alternatives that are superior to existing equipment are not available.

23. According to the passage, which of the following is a prerequisite for hydrocarbons to be used for refrigeration?
(A) Standardized design for all refrigeration needs.
(B) Discarding current standard refrigeration fluids.
(C) Strict government policies facilitating the use of hydrocarbons as refrigerant fluids.
(D) Proper design of the refrigeration system.

24. It can be inferred that a company using an ESCO is likely to serve environmental concerns better because of all of the reasons EXCEPT
(A) the ESCO has an incentive to minimize its own costs.
(B) the company does not need to invest much in refrigeration equipment.
(C) the service provider is likely to manage the refrigeration equipment more effectively.
(D) energy utilization for refrigeration process is likely to be reduced.

	Passage 1	Passage 2	Passage 3	Passage 4	Passage 5
No. of words	422	410	381	496	421
No. of Qs.	5	5	4	5	5

EXERCISE – 3
(Recommended Time : 60 Minutes)

Directions for questions 1 to 35: Read the given passages carefully and choose the best answer for the questions that follow each passage.

PASSAGE – I

Death comes as the end. Anyone born in this world must perforce die, given the level of medical knowledge and skill at present. And when that medical knowledge is quite certain that a person's sickness is not going to be cured, that he or she is not going to recover, in other words, he or she is terminally ill, would it not be merciful to allow the person to die? Would not euthanasia - or mercy killing as it has come to be termed - be acceptable to the suffering patient as well as to those who are close to him or her?

Painless death, which is what euthanasia basically means, is something that each one of us desires even if one is not afraid of that final annihilation. Visions of being bed-ridden, suffering and incurable pain, causing trouble and grief to those whom one holds dear, above all, being dependent on others with no hope of recovery - such visions do disturb the imagination of even the most robust in health and the most optimistic among us, at least fleetingly. At such moments, the idea of any easy death is certainly attractive. To be able to end it all appears the better alternative to prolonging the misery.

The issue of euthanasia involves two aspects: passive and active. Passive euthanasia would be the right to refuse medical treatment which merely prolongs life technically but holds no possibility of a cure or a resumption of normal activity. It is something that many people have done. There can be little controversy about such a decision. Indeed, it is not callousness but a clear perception of reality to consider as a meaningless medication that which is not going to do any good whatsoever. It would be far more dignified to die peacefully and naturally, free of the myriad tubes and pipes sticking out of one's body in an attempt to keep one artificially alive.

Refusing medical succour beyond a certain point is not a problem if a person's mental faculties are functioning normally. The decision is made by the individual. However, patients in a coma or in an otherwise unfit condition may not be in a position to make known their wish to forego further treatment. Their families might hesitate to discontinue such treatment for fear of being accused of negligence. To meet such circumstances, there should be some legal provision. If, for example, there is a written declaration by the patient, made when fully conscious and mentally alert, that in case of terminal illness or irreversible coma, artificial means to sustain life merely to prolong the process of death should not be used, the person's expressed wishes should be respected. Many of us, indeed, would favour making such a 'living will' to spare our families the awful dilemma of deciding when the time comes, whether or not to continue with expensive but useless medical support systems.

It is when we come to the 'active' aspect of euthanasia that ethical dilemmas come to the fore. For it involves not merely a refusal to be medicated but a conscious and deliberate decision to end one's life in case of terminal illness, and beyond that the right of doctors to be protected from prosecution if they accede to a patient's request for mercy killing. Whether one takes the decision oneself or others have to take the decision, the issue is fraught with moral considerations.

'Active' euthanasia, in its essence, comes down to legalised suicide or legalised murder or abetment to suicide. There is a deep rooted belief in most people that life is a god given gift and it is presumptuous on the part of a human being to throw it away. As for taking it away from another human being, howsoever merciful the motive, many would frown upon it as coming dangerously close to playing God. And if the patient is in coma without having expressed any idea on the subject, who is to decide on actively terminating the person's life? The possibility of greedy and unscrupulous relatives colluding with an equally unscrupulous doctor to kill a patient, from whose death they stand to gain, is a real danger. Even if a doctor is sincere and honest, the dilemma will remain whether the decision to terminate life was right or wrong at a deep moral level. A doctor's duty is surely to prolong life and not assist in shortening it.

There is a wide difference between stopping irksome medical treatment to allow a dying person to attain a peaceful and natural end and, on the other hand, administering something in order to consciously induce death. What if after deciding to allow euthanasia and being administered the lethal drug, hovering between life and death, a patient wants to reverse his or her decision and does not want to die as yet? It would be a horrendous situation for patient as well as doctor. Even those making a 'living will' to die may yet feel like changing their mind towards the end, but drift into a coma before expressing their changed viewpoint. What then? Who can decide correctly for such a patient? The act of removing life supports and permitting death can be traumatic enough for some doctors and nurses, may be even abhorrent to their conscience. How then can they reconcile themselves to actively administering some lethal drug to shorten a patient's life?

There are times, of course, when the agony of a patient dear to us is difficult to see and bear, especially when everyone concerned knows that death is inevitable. And it is easy to understand and sympathise with the death wish of the patient suffering excruciating pain or the humiliating situation of losing control over vital bodily functions. It is not given to all of us to have the strength and courage to endure physical pain and mental anguish stoically - though many of us would, no doubt, yearn for such strength. At such times and for such persons, surely the choice of euthanasia should be made available.

In certain developed countries such as the Netherlands, law allows the life of a person to be taken "upon his/her explicit request". In the United Kingdom, it has been considered legal to withdraw medical treatment and life support for a patient in persistent vegetative state and allow him or her to die. In India, there are voluntary societies that are campaigning for the right of an individual to choose to live or die within the limits of law.

Any law on euthanasia should, of course, have clear safeguards to preclude any possibility of unscrupulous elements exploiting the situation. The prime decision should come from the patient concerned, and that too after long and deep thought. There can be no hasty decision in this matter. No one should try to influence a person to think in terms of terminating his or her life or in seeking active intervention from doctors in doing so. No effort should be made to terminate a patient's life unless he or she repeatedly requests such action, and there is no reason to doubt this desire to die. It is also important that euthanasia is considered only in case of severe mental and physical suffering with no prospect of relief and all other options for the patient have been exhausted.

People who staunchly oppose euthanasia are blind to the tragedy and sense of human waste when a person suffering from irretrievable brain damage is kept artificially alive, suspended between life and death. There are several persons in the world at present who lie in a 'persistent vegetative state'. Previously, death came when a person stopped breathing; now cardiopulmonary resuscitation and mechanical ventilators and respirators prolong life or existence as some would have it - beyond what could have been imagined even some years earlier. In the circumstances, one has to consider the meaning of life itself, and not reject euthanasia out of hand as 'immoral'.

Euthanasia is a controversial subject and there can be no unanimity about it. Myriad shades of opinion exist upon the rights and wrongs of it. Ultimately, it ought to be every individual's right to decide whether to endure the suffering or to end it all, whether to continue with a treatment that merely prolongs a meaningless existence or to seek in death itself the final therapy.

1. Refusing medical succour becomes a problem
   a. for a mentally sound person.
   b. for a person in coma.
   c. for relatives of patients.
   d. when medical treatment is free.
   e. when a return to normalcy is ruled out.

   (A) a and b only
   (B) b and c only
   (C) d and e only
   (D) None of the above

2. What is the meaning of the phrase 'persistent vegetative state' as used in the passage?
   (A) Living on vegetarian diet forever.
   (B) To be in a state where no recovery is possible forever.
   (C) To persist in dormant condition.
   (D) A kind of long lasting illness.

3. Which of these countries have legalised euthanasia of any type?
   I. India
   II. The Netherlands
   III. The United Kingdom
   IV. Iran

   (A) I and IV
   (B) II and III
   (C) I, II, III
   (D) II alone

4. 'Playing God' as used in the passage, would include
   a. active euthanasia.
   b. inducing death in a terminally ill patient.
   c. reversing the decision to die after the administration of a lethal drug.

   (A) Only a
   (B) Only b and c
   (C) Only a and c
   (D) Only a and b

5. Which of the following is NOT an issue involved in active euthanasia?
   (A) The right of doctors to be protected from prosecution.
   (B) A refusal on the part of a patient to be medicated.
   (C) Conscious and deliberate decision to end one's life.
   (D) None of the above

6. The passage defines death as
   (A) stoppage of breath.
   (B) being in a persistent vegetative state.
   (C) being in tune with existence.
   (D) None of the above

7. Which of the following is NOT TRUE as per the passage?
   (A) The author strongly supports staunch opponents of euthanasia.
   (B) Greedy relatives could conspire with doctors to use euthanasia for their own benefit.
   (C) Active euthanasia may be called legalised murder.
   (D) Euthanasia creates moral and ethical problems.

8. The moral dilemma in euthanasia is compounded by
   (A) the technology that helps in prolonging life.
   (B) the opponents of euthanasia.
   (C) the sense of human waste.
   (D) the probable brain damage of the sufferers.

9. The author suggests that euthanasia is morally justified in a patient when
   (A) he loses his will to live.
   (B) removing life support system would not be an ethic related issue.
   (C) he becomes dependent physically.
   (D) there is no likelihood, of his improvement from his comatose and unresponsive state.

PASSAGE – II

Science, from the word 'Scientia' which means 'knowledge', is supposed to concentrate on verifiable facts, reasoned arguments and firm conclusions. Art, on the other hand, is considered to be too closely linked with imagination, feelings and emotions to stand the test of reality. Facts certainly form the basis of any work of art. Poetry is a writer's response to reality, outer or inner; novels weave social details and human character into a story; paintings depict a scene or a human being. But the reality underlying art cannot be called the reality of fact. It is reality transformed by the colours of the imagination, the permutations and combinations in the artist's mind, and given shape by the magic of words, paint or sound. Reason is not excluded by the artist, but it is a regulatory factor, not the chief motivation as in a scientific inquiry.

In yet another aspect, science and art seem to diverge: the matter of accuracy. Science pursues accuracy with a single-minded zeal. It aims at making its knowledge more and more approximate to truth, and in this effort constantly revises its repertoire of principles, formulae and theories. Art does not aim at that kind of accuracy. A work of art does not reveal all that can be expressed about a subject. Essence is more important to art, enabling the reader, hearer or viewer to gather much more than what the mere words paint or depict on the surface. Aesthetic joy is not confined to superficial accuracy.

A scientist's method is different from that of an artist's. Analysis - the breaking down of a phenomenon into its components - is basic to the scientist's way of trying to understand reality. Looking at a star, he cannot rest content wondering about what it is. He has to analyse its ingredients, and come to the triumphant conclusion-

By the spectroscopic ken
I know that you are hydrogen

The artist's method is different. He looks upon and collects bits and pieces of the outside world and experiences - a colour from here, a smile from there, a song from elsewhere - and integrates it all into a whole which cannot be dismembered into its constituents. Of course, poems are 'analysed' and paintings and musical compositions 'dissected' in order to be 'critically appreciated', but the enjoyment of a work of art lies in taking it as a whole. Are science and art then truly antithetical to one another? The gulf in attitude and approach may suggest that it is so. And yet, there are so many ways in which the two interact, so many points at which they meet. Many a great discovery of science has its roots in the same intuition and imagination that find expression in works of art. Reality is ultimately the subject of both science and art, only perspectives may differ. Truth itself is no hard and fast, single, dull entity. It is multi-faceted and is approached by divergent paths. If Keats found beauty and truth in a Grecian urn, Blake found eternity in a grain of sand and Einstein found it all a matter of relativity.

It is a matter of interest that scientific interests and discoveries have spurred art to look for new perspectives in beauty. Newton's Optics seems to have sparked off innumerable colour images in English poetry. Before the invention of photography, the landscape painter depicted with meticulous care what he saw in nature as it was; after photography took over this kind of depiction, art developed impressionism. The landscape was seen in terms of light and vivid tones of colour. Psychological advances too have had an impact on art. If James Joyce used the 'stream of consciousness' technique, the surrealism of Salvador Dali opened up entirely new possibilities in painting. Picasso's portraits are, indeed, considered as an attempt at space time co-ordination in painting. Shades of Einstein! Today, computer graphics shows how the artist's imagination can be combined with scientific and technological skill and precision to produce something totally new.

Technology has helped art in its various forms to reach the masses. The printing press - and now the desk-top printer have multiplied the accessibility of common man to the written word. Radio has brought into homes the music of many lands. Television and cinema have created vivid forms of entertainment; indeed, the audio-visual media are justly art-forms in themselves. Science has created tools which the artist in the human mind learns to use with effect. The revolution in information technology has revolutionised the reach of art forms as well. And since information is a two-way process, the access to what is happening in remote places also has a suitable influence on artists' work.

Science with its cold clinical approach has killed the joy and wonder of life, say some. Not quite. True, with the spread of knowledge, one knows that the rainbow is merely light broken up into its spectrum, and that the moon is made of rocks, but that does not quite deaden our appreciation of the rainbow or the rain clouds or kill our ability to enjoy Wordsworth and Shelley. A poet could now rhapsodise over what a drop of blood looks like under a microscope or the distant star through a telescope and make a reader marvel afresh at the universe.

In any case, those who reduce science to bare reason are doing it an injustice. The human mind which is responsible for creating a work of art is equally responsible for discovering laws of nature and universe. Neither can be done without the spirit of imagination. Science fiction exemplifies how the imagination creates worlds and events that science of the future renders into reality. Leonardo da Vinci not only painted the famous Mona Lisa but also drew models of flying machines. H.G.Wells looked forward to man's landing on the moon. Asimov's robots are threatening to come alive. And the very recent successes at experiments in cloning found an artistic outlet in the creation of dinosaur clones on the screen, though most people would rather not have a Jurassic Park for real. The effects for that movie, incidentally, were created by the most sophisticated computers in conjunction with the human brain. Who can, in the circumstances, draw fine lines to demarcate the end of art and the beginning of science?

Life is a many-splendoured entity, and reality has more than one plane. Art and science, far from being antithetical to one another, are part of the same reality. It needs a comprehensive vision to see them as parts of a whole, and to compartmentalise them within narrow boundaries would be detrimental to human welfare. The head and the heart are equally important for a meaningful life.

10. The common factors between science and arts are
a. human mind.
b. imagination.
c. reality.
d. laws of nature.
e. accuracy.

(A) a, b and c (B) b, c and d
(C) c, d and e (D) All the above

11. Which of these are antitheses between science and art?
a. Science aims at accuracy, art does not.
b. Science analyses, art integrates.
c. Intuition and imagination come into play only in arts.
d. Only an artist responds to reality.

(A) a and d (B) a and b
(C) a, b, and c (D) All the above

12. Science and arts may be called complementary because
a. scientific facts do not come in the way of our appreciation of beauty.
b. science and arts are two aspects of the same reality.
c. reason and emotion concerned with science and arts respectively are deemed to be essential for a meaningful life.
d. discoveries of science have, in certain ways, helped to promote arts.

(A) Only a (B) a and b
(C) a, b and c (D) All the above

13. Based on the passage, who among the following could be the brain behind the basic idea of a helicopter?
(A) H.G.Wells (B) Leonardo da vinci
(C) Picasso (D) Asimov

14. The author of the passage
(A) is biased towards science.
(B) is biased towards arts.
(C) is unable to say whether science is better than arts.
(D) feels that both science and arts are needed to make life complete.

15. One of the following is not true as per the passage :
(A) The 'stream of consciousness' technique used by James Joyce had an impact on art.
(B) Newton's Optics enriched the imagery of English poetry.
(C) Scientific discoveries are purely a product of rational thought and irrational aspects like inspiration have no place in them.
(D) Truth is multifaceted, hence cannot be reduced to single entity.

16. Which of the following statements is true as per the passage?
(A) Poetry is a writer's response to others' emotions.
(B) The chief motivation of scientific enquiry is a detailed analysis.
(C) Analysis is absent in arts.
(D) "Accuracy" occupies a critical place in science.

17. Which of the following options summarizes para 8 of the passage most appropriately?
(A) Despite its cold and analytic approach science has not precluded us from appreciating the joys and wonders of life.
(B) Contrary to what most people believe science has not prevented us from experiencing the joys and wonders of life.
(C) The analytical approach of science towards life does not deaden our appreciation of the beauty and joys of nature or kill our ability to enjoy a poet's exaltation of nature, hence to say that science has killed the joy and wonder of life is not quite true.
(D) Although there is some truth in the belief that science has a cold and clinical approach towards life, science does not deaden our appreciation of the beauty and joys of life.

PASSAGE – III

The Food and Drug Administration approved deep brain stimulation as a treatment for severe essential tremor recently. Studies find the surgery effective in controlling tremor in severe cases not responding to medication. Major problems are rare and minor problems are almost always reversible by turning off the implanted stimulator.

Tremor is a rhythmic, shaking movement produced by involuntary muscle contraction and relaxation, often occuring in the arms, legs, head or voice. Tremor in the limbs usually affects both sides of the body. The causes of tremor range from drugs to diseases to movement disorders. Some drugs causing temporary tremor include anti-depressants, beta-adrenergic agonists, mood stabilisers, thyroid drugs, caffeine or monosodium glutamate. Other causes include alcohol withdrawal, stroke, fever, thyrotoxicosis and hypoglycaemia. Two movement disorders causing permanent tremor are Parkinson's disease, a progressive degenerative neurological disease affecting 500,000 Americans, and essential tremor, a non-degenerative disease, affecting four million to six million Americans. Although not fatal, essential tremor can become increasingly disabling in performing daily living skills such as writing, eating and drinking.

Treatments for essential tremor have come a full circle. Thirty years ago, a surgical procedure called thalamotomy was introduced to control tremor. Thalamotomy destroys the region of the brain responsible for tremor, the thalamus VIM target, a region roughly the size and shape of a half a grain of rice. Because of somewhat crude techniques utilised to locate the VIM target, results were mixed. In ensuing years, drugs, particularly the beta blocker propranolon and anti-convulsant primidone, were (and still are) used to control tremor although they prove effective in less than half of patients. With recent advances in neurological imaging, stereotactic brain surgery and electronic reading of brain signals, surgical treatments for tremor have returned.

Both thalamotomy and deep brain stimulation begin by boring a hole in the skull and guiding a wire to the VIM target. From here, the two procedures differ. Thalamotomy permanently destroys the VIM target; all surgical devices are removed from the body. Deep brain stimulation leaves the electrode-tipped wire permanently in the VIM target. After implantation, the patient uses a magnet to turn the system on and off. When on, the pulse generator sends a signal to the electrode that stimulates the VIM target. Even though the exact reasons for its success are unknown, tremor decreases or ceases with the destruction or stimulation of the VIM target.

Long term complications from thalamotomy performed on one side of the brain include opposite-side weakness and slurred speech in about a quarter of patients. Temporary memory and cognitive problems, gait problems, headaches and pain may occur. About 20 percent of the time, tremor recurs. Thalamotomies performed on both sides of the brain result in more serious side-effects. Deep brain stimulation causes long term numbness of the limb in 20 percent of patients. Less than five percent encounter long term gait disorder, slurred speech, pain, headache and balance problems, but complications often reduce or disappear when stimulation decreases or stops.

Death from either surgery occurs in about one in 300 patients. Improvements following deep brain stimulation can be dramatic and immediate. The most recent study by Dr.William Koller, chairman of the department of neurology at the University of Kansas Medical Centre examined 29 essential tremor patients' functional abilities before and after stimulation surgery. Nine patients had total tremor resolution in the arm being treated. Overall, a 50 percent improvement in daily living skills such as pouring drinks and writing occurred after three months. On a standardised zero to four tremor scale, all patients improved from three to one. A score of three describes spilling upto 50 percent of poured fluid and barely legible handwriting. A score of one describes pouring without spilling and writing legibly, although both efforts require concentration.

Payment for stimulation surgery is unresolved. A thalamotomy costs about $20,000 and deep brain stimulation roughly $38,000. Insurance companies/payers support treating severe tremor - hoping to return individuals to independent living. But the amount they are willing to cover is not clear. Additional visits and subsequent necessary surgeries add further costs. Initially, the electric current delivered to the electrode requires adjustment. Occasionally a broken wire or lead may require surgery. Experts predict batteries implanted in the chest wall near the clavical need replacing every five years when the system runs at typical settings. Experts explain that a stimulation surgery requires a lifelong relationship with a neurologist or neurosurgeon.

"If you look at benefits versus costs of deep brain stimulation surgery for essential tremor, it is not a simple, straightforward issue", said Dr. Ron Alterman, neurosurgeon at the University of Pennsylvania Health Systems, in an interview. Ignoring cost issues, "We (also) favour thalamic stimulation as the surgical procedure of choice for severe, disabling essential tremor that cannot be controlled with drugs", writes Koller. According to experts, experience with deep brain stimulation is essential to obtain repeated good results. Although many leading neurosurgeons are learning this procedure, currently only a handful have significant experience.

18. Which of the following may not be responsible for causing tremors?
(A) Anti depressants (B) Caffeine
(C) Alcohol consumption (D) Hypoglycaemia

19. Find the odd man out.
(A) Parkinson's disease
(B) Propanolon
(C) Deep brain stimulation
(D) Primidone

20. Which of the following is not a complication arising out of thalamotomy?
(A) Slurring of speech
(B) Gait problems
(C) Numbness of limbs
(D) Opposite side weakness

21. In the initial years, thalamotomy was not always successful because
(A) surgery was in its initial stage.
(B) techniques for VIM location were rudimentary.
(C) appropriate drugs had not been invented.
(D) the technique of neurological imaging was not refined.

22. VIM target, according to the passage,
(A) controls involuntary muscles.
(B) is the most important part of the brain.
(C) is no bigger than half a grain of rice.
(D) is a vestigial organ.

23. Some of the problems of deep brain stimulation are
a. cost of the surgery.
b. broken wires or lead.
c. replacement of batteries.
d. a permanent requirement of neurologist services.

(A) Only a
(B) a and b
(C) a and c
(D) a, b, c and d

24. The phrase, 'come a full circle' as used in the passage, means
(A) return to the earlier mode of treatment.
(B) change in treatment.
(C) discarding old methods.
(D) going round in circles, unable to find a solution

25. Which of the following statements is not true according to the passage?
(A) Unlike Parkinson's disease, essential tremor is a non-degenerative disease.
(B) Not many neurosurgeons are familiar with deep brain stimulation.
(C) Beta blockers and anti-convulsant drugs are more effective than surgery in controlling tremors.
(D) Deep brain stimulation surgery is more expensive when compared to thalamatomy.

PASSAGE – IV

Watching is meditation. What you watch is irrelevant. You can watch the trees, you can watch the river, you can watch the clouds, you can watch children playing around. Watching is meditation. What you watch is not the point; the object is not the point. The quality of observation, the quality of being aware and alert - that's what meditation is. Remember one thing: meditation means awareness. Whatsoever you do with awareness is meditation. Action is not the question, but the quality that you bring to your action. Walking can be a meditation if you walk alert. Sitting can be a meditation if you sit alert. Listening to the birds can be a meditation if you listen with awareness. Just listening to the inner voice of your mind can be meditation if you remain alert and watchful. The whole point is, one should not move in sleep. Then whatsoever you do is meditation.

The first step in awareness is to be very watchful of your body. Slowly, one becomes alert about each gesture, each movement. And as you become aware, a miracle starts happening; many things that you used to do before simply disappear; your body becomes more relaxed, your body becomes more attuned. A deep peace starts prevailing even in your body, a subtle music pulsates in your body. Then start becoming aware of your thoughts; the same has to be done with thoughts. They are more subtle than the body and of course, more dangerous too. And when you become aware of your thoughts, you will be surprised what goes on inside you. If you write down whatsoever is going on at any moment, you are in for a great surprise. You will not believe that this is what is going on inside you. And after ten minutes read it - you will see a mad mind inside! Because we are not aware, this whole madness goes on running like an undercurrent. It affects whatsoever you are doing, it affects everything. And the sum total of it is going to be your life! So this madman has to be changed. And the miracle of awareness is that you need not do anything except just become aware. The very phenomenon of watching it changes it. Slowly the madman disappears, slowly the thoughts start falling into a certain pattern; their chaos is no more, they become more of a cosmos. And then again, a deeper peace prevails. And when your body and your mind are at peace you will see that they are attuned to each other too, there is a bridge. Now they are not running in different directions, they are not riding different horses. For the first time, there is accord, and that accord helps immensely to work on the third step - that is becoming aware of your feelings, emotions, moods. That is the subtlest layer and the most difficult, but if you can be aware of the thoughts, then it is just one step more. A little more intense awareness is needed and you start reflecting your moods, your emotions, your feelings. Once you are aware of all these three, they all become joined into one phenomenon. And when all these three are one, functioning together perfectly, humming together, you can feel the music of all the three; they have become an orchestra - then the fourth happens, which you cannot do. It happens on its own accord. It is a gift from the whole, it is a reward for those who have done these three. And the fourth is the ultimate awareness that makes one awakened. One becomes aware of one's awareness - that is the fourth. That makes a Buddha, the awakened. And only in that awakening does one come to know what bliss is. The body knows pleasure, the mind knows happiness, the heart knows joy, the fourth knows bliss. Bliss is the goal of sannyas, of being a seeker, and awareness is the path towards it.

The important thing is that you are watchful, that you have not forgotten to watch, that you are watching.... watching.....watching. And slowly, as the watcher becomes more and more solid, stable, unwavering, a transformation happens. The things that you were watching disappear.

For the first time, the watcher itself becomes the watched, the observer itself becomes the observed.
You have come home.

26. From the passage, you can infer that
(A) ultimate awareness can be achieved by practice.
(B) ultimate awareness is a doing not a happening.
(C) all those who can watch their moods can attain ultimate awareness.
(D) "Buddha" hood can be achieved through diligence.

27. A mad mind may be discovered
(A) in normal people.
(B) in enlightened people.
(C) only in people who are meditating.
(D) in people who are trying to be aware of themselves.

28. The phrase 'move in sleep' means
(A) walk while asleep
(B) being unaware.
(C) being alert.
(D) listening to your mind.

29. Arrange in the right order.
a. awareness of moods
b. awareness of thoughts.
c. awareness of one's awareness
d. awareness of the body.

(A) a, b, c, d
(B) d, c, b, a
(C) d, b, a, c
(D) a, c, d, b

30. Pick the choice that is correctly matched.

1. body	a. joy
2. mind	b. bliss
3. heart	c. pleasure
4. awakened	d. happiness

(A)		(B)		(C)		(D)	
1.	c	1.	a	1.	d	1.	b
2.	d	2.	b	2.	c	2.	d
3.	a	3.	c	3.	b	3.	c
4.	b	4.	d	4.	a	4.	a

31. As per the passage, which of the following things must you do if your body is very tense?
I. Run a mile.
II. get involved in a vigorous exercise.
III. Just watch your body as a first step.
IV. Just watch your mind.

(A) Only I (B) I and II
(C) Only III (D) III and IV

32. Which of the following is an assumption of the author?
(A) Minds of all men are mad.
(B) A mad mind can be cured.
(C) Not all minds are mad.
(D) It is possible to lead a normal life without being meditative.

PASSAGE – V

Neanderthal man was a strong, large-brained, skilful big-game hunter who had survived for more than 200,000 years in the harsh European climates of the last Ice Age. But within a few thousand years of the arrival of modern humans in the continent, he was extinct. Why that happened is a matter of abiding interest to anthropologically inclined descendants of those interloping moderns. The extinction of Neanderthal man has been attributed variously to his having lower intelligence than modern humans, to worse language skills, to cruder tools, or even to the lack of a propensity for long-distance trade. The latest proposal, though, is that it is not so much Neanderthal man that was to blame, as modern woman.

In existing pre-agricultural societies there is, famously, a division of food-acquiring labour between men, who hunt, and women, who gather. And in a paper just published in *Current Anthropology*, Steven Kuhn and Mary Stiner of the University of Arizona propose that this division of labour happened early in the species history, and that it is what enabled modern humans to expand their population at the expense of Neanderthals.

As Adam Smith noted, division of labour leads to greater productivity because it allows people to specialise and become very good at what they do. In the vast majority of cases among historically known and present-day foragers, men specialise in hunting big game, while women hunt smaller animals and collect plant food. In colder climes, where long winters make plant-gathering difficult or impossible for much of the year, women often specialise in making clothing and shelters.

The archaeological record, however, shows few signs of any specialisation among the Neanderthals from their appearance about 250,000 years ago to their disappearance 30,000 years ago. Instead, they did one thing almost to the exclusion of all else: they hunted big game.

Signs of division of labour come only with the arrival of modern humans into Europe around 40,000 years ago. That is when evidence appears of small animals being eaten routinely and plant foods being gathered.

Dr. Kuhn and Dr. Stiner suggest that division of labour actually originated in a warmer part of the world – Africa seems most likely – where plant foods could be gathered profitably all year round. But as humans brought the idea of division of labour north, the female side of the bargain gave the species a significant advantage by providing fallback foods when big game was scarce and allowing more people to inhabit a given piece of land in times of plenty. Modern human populations grew, Neanderthal populations shrank, and the rest is prehistory.

33. The author uses the term 'interloping moderns' to refer to the modern humans probably because
(A) they were more skilful in game hunting than the Neanderthals.
(B) they were more evolved than their predecessors.
(C) they practised long distance trade.
(D) they were considered responsible for the extinction of the Neanderthals.

34. The author's main purpose in the passage is to
(A) depict modern humanity's battle with the Neanderthals.
(B) discuss the pivotal role played by women in the extinction of the Neanderthals.
(C) discuss the circumstances which led to the extinction of the Neanderthals.
(D) bring out the difference in the life styles of the Neanderthal man and the modern man.

35. The author uses the term 'big game hunter' to refer to the Neanderthal man because the Neanderthal man
(A) was adept at hunting large animals exclusively for sport.
(B) survived only on meat.
(C) hunted large animals for sport and small animals for food.
(D) more than one of the above

	Passage 1	Passage 2	Passage 3	Passage 4	Passage 5
No. of words	1390	1117	824	727	430
No. of Qs.	9	8	8	7	3

EXERCISE – 4
(Recommended Time : 60 Minutes)

Directions for questions 1 to 35: Read the given passages carefully and choose the best answer for the questions that follow each passage.

PASSAGE – I

We are living in an age where the utility of knowledge to society is constantly reviewed. And one has to find means to market his knowledge and benefit from it. For a student of history, the competitive examinations are one of the ways of making use of the knowledge of history. The rate of success is directly proportionate to the depth of knowledge one has in history.

For many, history is an innocuous subject which needs no extra pains to attain a degree either in undergraduation or in postgraduation. In fact, it might appear strange but true that a student in history might have secured less marks with his "books or class notes" in his undergraduation but to his own amazement he might score more marks in postgraduation using the same material. This is because, there is considerable overlapping in the content of the syllabus both in undergraduation and in postgraduation. Hence, the student feels that he need not spend extra energy to pass the P.G degree.

And it will remain an unresolved enigma how he manages to get more marks in a higher degree with the preparation for the lower degree. This is one side of the coin; the other side is still more strange. Having completed under-graduation as well as post-graduation in history, a student might appear for a competitive examination such as the UPSC. Here, the student is advised to follow the plus one and plus two history books to qualify for the Preliminary Examination in history. This may outwardly sound highly preposterous for the layman but for the pundits, it is the order of the day. Further, the P.G students feel the 'Plus one' or Plus two' history textbook is rather of a high standard, hence it is very difficult to follow. But many civil service aspirants restart their studies after postgraduation right from the 'Plus one' stage without going into the ethics of the whole problem. This is continuing year after year. The leading civil service training institutes (both private and public) as well as citadels of higher learning - the universities – with no serious qualms prescribe school text books for the civil service aspirants.

History is the choicest of all the subjects for the competitive examinations. In the UPSC preliminary examination, nearly one-third of the candidates opt for history. Similarly for the main examination, more than 3,000 candidates out of 10,000 opt for history. Hence the utility of the subject history cannot be denied. But of this 3,000, many would have opted for history for the first time even though history might not have been their main subject during their graduation (both UG and PG). Once again, the statistics reveal a startling point that the non-history graduates fare rather well in the competitive exams opting for history rather than the so called history graduates(UG and PG). For a history graduate, the very knowledge he acquires during the course of his studies in UG and PG becomes a barrier to success.

The crux of the problem lies somewhere in the evaluation system. No student of history walks out of any university examination without attempting all the required number of questions, even though he may not know the answer for all the questions. Many find it surprising that they pass the university examination, although they may have sincerely felt that dame luck was on their side. This loose evaluation system, in fact, lies at the very root of the problem. A student of history, after acquiring a first class in his graduation, finds it very tough to pass even the preliminary examination in UPSC and also restudies history anew. The question is, why?

A student of history might very well pass the university examination without even referring or knowing the standard reference books or even the textbooks. When the same student armed with a degree in history, enters the arena of competitive examination, he feels that it is a different ball game altogether. The students who have the potential and are hard working "redo" their studies and overcome their bad start but others are doomed with their degrees, ultimately, blaming history to be worthless.

No doubt, history has a bad start as an academic discipline among other branches of knowledge. Most of the students would have opted for history as a subject of study for their degree with some reluctance. As it has been the practice, those who did not find seats in other branches would finally be shunted to history.

Hence, the students lack an emotional bondage with the subject of their study. The situation is complicated further by the "opinion" of the laymen and "social value" attached to the subject history – That it has nothing to tell except gossip, dates, names and things dead and gone. Even the practitioners of history normally discharge their duties with an epistemological barrier constructed around them, that history deals only with the past and not with the present and contemporary.

1. A student of history preparing for the UPSC examination,
- (A) has to unlearn what he has learnt during his student days and discard it.
- (B) has to start his preparation from scratch.
- (C) should start reading the standard reference books.
- (D) finds it the only route to put his knowledge to use.

2. The author in the passage
- (A) blames the nonchalant attitude of the history students.
- (B) points out that the evaluation system of PG students is, at least partly, responsible for the lackadaisical attitude of the students.
- (C) advises revamping of the syllabus at both graduation and post graduation levels.
- (D) is sorry that a subject like history is being viewed by students as worthless.

3. The UPSC examination, for a student of history,
(A) should have been an effortless task.
(B) may be a cake walk.
(C) will become an insurmountable barrier.
(D) can no longer be a feasible option.

4. Through the passage, the author is trying to explain
I. why history is not being considered as the most happening subject in today's environment.
II. that history is being given a raw deal in the competitive examinations.
III. that history students in general are dullards.

(A) Only I and II
(B) Only II and III
(C) Only I and III
(D) None of the three

5. What can be said about the quality of students opting for history as their specialization?
a. They definitely do not constitute the cream of the student population.
b. Most of them may not be taking the subject out of their love for it.
c. They come with an eye on UPSC examinations.
d. They are the type that depends solely on their luck to clear the examinations.

(A) a and b (B) Only c
(C) Only b (D) a and d

6. Which of the following statement(s) is/are true according to the passage regarding the subject history?
I. It is a much sought after subject in competitive examinations.
II. It deals only with dates, names and things – dead and gone.
III. History graduates have a natural advantage in various competitive examinations like the UPSC.

(A) Only I (B) Only II
(C) Only II and III (D) Only I and II

7. Which of the following is the easiest for a student to do these days?
(A) Scoring marks in history in undergraduation.
(B) Succeeding in competitive exam with history as the subject.
(C) Scoring marks in post-graduation in history.
(D) Developing an emotional bond with the subject he is studying.

8. The context in which the author uses the phrase "a startling point" can be termed as
(A) ironical (B) paradoxical.
(C) controversial. (D) contentious.

9. Which among the following options is closest in meaning to the word preposterous as used in the 3rd para of the passage?
(A) extravagant (B) inconclusive
(C) irreverent (D) irrational

PASSAGE – II

We are constantly told that information technology will take us to a gleaming, gigabyte-infested other world called Cyberspace. Baloney! The industrial revolution didn't take us to motor space; it brought motors into our lives. The information revolution will do the same, introducing new tools which we will use to serve our ancient human needs. This new movement is not about multimedia, virtual reality or even the mighty world wide web. It is about an emerging information marketplace in which computers and their users everywhere will buy, sell and freely exchange information and "information work".

When people talk about information, they think of the traditional content of books, newspapers, television and radio which represent about 5% of the U.S. economy. None talks about information work – the activity people and machines perform when they transform information-which accounts for 60% of the U.S. economy. Information work will take many guises in the information marketplace. Imagine a doctor in Sri Lanka examining a homeless person in a San Francisco clinic who is connected by means of a few electrodes to a diagnostic kiosk with a nurse standing by. The doctor provides human information work - his medical diagnostic skill – for $2.00 a visit. The information marketplace will bring this and many other new tools into our lives through electronic bulldozers and electronic proximity.

In the industrial era, mechanical bulldozers allowed workers to throw away their shovels and offload their muscle work on machines. Today we squint our eyes and scorch our brains in front of inscrutable mail headers and pages of impenetrable text. We are still shovelling with our eyes and brains but dismiss the drudgery because our silicon-studded shovels make us feel modern. It's time we shed the shovels and exploited electronic bulldozers.

New tools like e-forms will make this easier than it sounds. To fill in a travel-form for example, all I have to type or say out loud is "Computer take us to Athens this weekend". My machine knows that us means two and that we prefer business class. It calls the airline computer and after a few exchanges, the machines complete the booking. It takes me three seconds to give my command and it takes the machines ten minutes to finish the job – a 20,000% productivity gain. Electronic bulldozer tools like this will get much of our information work done. We will increase our productivity further by making our machines truly easier to use. One good way is to speak to them. Speech understanding systems are finally becoming technologically mature and affordable.

The changes arising from the second major new force - electronic proximity – will be just as large. As the information marketplace develops, we'll be closer to a thousand times more people than we were with the automobile. Within a decade, half a billion people and machines will be squeezed into one gigantic electronic city block. The closeness will not only lead to powerful benefits through group work and telework but also to info predators and new kinds of crimes. I don't expect the ratio of good to bad will change; the angels and devils are within us, not in our machines.

Electronic proximity will strengthen tribalism. Ethnic groups scattered across the globe will have a way to unite perhaps even extending the meaning of a nation from a land mass to an ethnic network. At the same time, electronic proximity will strengthen diversity, because when people from different ethnic groups meet within a "tribe" of classical music buffs for example, they'll get to know one another within that subgroup. This won't lead to a universal global culture but a thin veneer of shared norms. It will also give rise to new projects that have worthy human purposes like a Virtual Compassion Corps which could match the providers of human help with those worldwide who need it. Electronic proximity will ultimately lead to increased democratisation not so much because information will traverse national borders but because even totalitarian nations will want to participate in the major new economic force of the 21st century. To do so, they will have to play by the rules of engagement made by the predominantly democratic nations that will establish information marketplace.

The information marketplace will create problems too. Unless we intervene, it will increase the gap between rich and poor nations because the rich will be able to afford the electronic bulldozers while the poor will not. Electronic proximity will inundate us with info junk, creating a need for human intermediaries who can help us find what we want. And electronic proximity will be perceived by some as a license to attack cultures that took thousands of years to build. National leaders will no doubt use politics and technology to protect their cultures against such info-assaults. They will also need to negotiate how to handle cross border information violations as they did earlier with international crime and trade. Because of the widespread changes it will foster, the information revolution will earn its place in history as the socioeconomic movement, following agrarian and industrial revolutions. May be then having understood the plough, the motor and the computer, we'll dare go beyond artifacts and embark upon the fourth revolution – striving to understand ourselves.

10. The author calls the information revolution as
(A) a new tool.
(B) cyberspace.
(C) gigabyte world.
(D) None of the above

11. Electronic proximity will not strengthen which of the following?
(A) Tribalism
(B) Democratisation
(C) Diversity
(D) Marketability

12. The passage suggests that information revolution
(A) can promote technology, which will effectively check terrorism.
(B) can rock the socio-cultural edifice on which nations rest.
(C) can effect a change in human value systems.
(D) can't be as significant as the industrial revolution.

13. Which of the following views does the author express with regard to socio-economic revolutions?
a. The present revolution is the one that would benefit humanity the most.
b. The industrial revolution helped man perform better and faster with the advent of machines.
c. The future movement would be one that may help man understand himself better.
d. The agrarian revolution is concerned with agricultural practices.

(A) b and c.
(B) b, c and d.
(C) a, c and d.
(D) All the four statements.

14. On the positive side, electronic proximity will most probably lead to the creation of
(A) global village.
(B) isolated tribes.
(C) predatory groups.
(D) information network.

15. Identify the statements which can be inferred from the passage.
a. A country may, in future, be identified by its ethnic network.
b. The rich may become richer because of the digital divide.
c. The activities people and machines perform when they transform information into revenue constitute information work.
d. The phrase, 'electronic bulldozing' implies increasing productivity manifold through the use of computers.

(A) Only c and d are true.
(B) a, b and c are true.
(C) b, c and d are true.
(D) All the four statements can be inferred.

PASSAGE – III

The next time you're watching a pot of water boil, perhaps for a cup of coffee or a bowl of soup, pause for a moment and consider: what would this look like in space? Would the turbulent bubbles rise or fall? And how big would they be? Would the liquid stay in the pan at all? Until a few years ago, nobody knew. Indeed, physicists have trouble understanding the complex behaviour of boiling fluids on Earth. Perhaps boiling in space would prove even more baffling.... It's an important question because boiling happens not only in coffee pots, but also in power plants and spacecraft cooling systems. Engineers need to know how boiling works.

In the early 1990s, a team of scientists and engineers from the University of Michigan and NASA decided to find out more on this subject. Using a freon coolant as their liquid, they conducted a series of boiling experiments on a space shuttle during five missions between 1992 and 1996. And indeed, they found some intriguing differences between what happens to boiling fluids on Earth and what happens to them in orbit. For example, a liquid boiling in weightlessness produces -- not thousands of effervescing bubbles -- but one giant undulating bubble that swallows up smaller ones!.

Now anyone can watch the fascinating behaviour of boiling in weightlessness, thanks to a video footage on the experiments recently made available by NASA. "Think of it: no one had really seen boiling in space before these experiments – in the whole world, ever!" says Dr. Francis Chiaramonte, who was the NASA project scientist for the pool boiling experiment. Already, he says, the series of experiments has come to be regarded as "classic" by today's researchers. This research is much more than a simple curiosity. Learning how liquids boil in space will lead to more efficient cooling systems for spacecraft, such as the ammonia based system on the International Space Station. Knowledge of boiling in space might also be used someday to design power plants for space stations that use sunlight to boil a liquid to create vapour, which would then turn a turbine to produce electricity. The research could also have applications here on Earth. The weightless environment gives scientists a new "window" into the phenomenon of boiling. Scientists can use this perspective to improve their understanding of the fundamentals of boiling, which might be used to improve the design of terrestrial power plants. "The phenomenon of boiling is so complex that most of our understanding is empirical, rather than based on the solutions to fundamental equations," Chiaramonte says.

In the free-fall of orbit, boiling is simpler than it is on Earth. Weightlessness effectively removes two of the variables in boiling – convection and buoyancy. This difference explains why boiling liquids behave so differently in space. It also provides a powerful tool for scientists who want to unravel the tangled physics of boiling." As an example, imagine you were trying to study the Earth, which has such complex ecosystems. You would also want to look at a simpler planet with fewer variables. One thing space does for us is simplify the problem that we're studying," Chiaramonte says.

When a pool of liquid is heated on Earth, gravity causes hotter regions in the liquid to rise, and cooler, more dense parts to sink – a process called "convection." This motion spreads the heat around inside the liquid. Once it begins to boil, buoyancy sends bubbles hurling upward, creating a "rolling boil." All of this motion within the liquid makes the physics of the situation much more complex. Without convection or buoyancy, the process unfolds differently. Heated fluid doesn't rise, and instead just sits next to the heater surface and continues to get warmer. Regions of liquid away from the heater remain relatively cool. Because a smaller volume of water is being heated, it comes to a boil much more quickly. As bubbles of vapour form, though, they don't shoot to the surface – they coalesce into a giant bubble that wobbles around within the liquid. Much of this could be predicted from existing theory, but to learn the finer details of the process and to look for unexpected behaviours, a real experiment was necessary.

"There were many fundamental issues that were still not understood well," says Dr. Herman Merte, the principal investigator for the experiments. Merte, who some see as a kind of "founding father" of microgravity pool boiling research, devised the experiments featured in the video tape. Merte and other scientists had performed earlier research on weightless boiling using "drop towers," which could simulate zero-G for a few seconds by simply dropping samples inside a tall tower. These early experiments provided some guidance for designing the shuttle-based experiment, but these brief glimpses don't really compare to the minutes-long observation provided by the shuttle. One important product of that early research, though, was a method for building a boiling chamber that let scientists look through the heater surface and watch the liquid right where it contacts the heater. "The action is right at the solid-liquid interface of the heater, and you can't look down from the top because you have the refraction of the fluid's upper surface that interferes," says Merte, who recently retired as Emeritus Professor of Mechanical Engineering at the University of Michigan.

Merte used quartz to make a smooth, hard, transparent bottom for the boiling chamber. Then he coated that quartz with an ultra-thin layer of gold. Less than 400 angstroms thick (an angstrom is one ten-billionth of a meter), this layer was so thin that it allowed visible light to pass through it, yet it conducted electricity like bulk gold. Using this apparatus, Merte and his colleagues made some interesting discoveries. For example, depending on the temperature conditions of the experiment, the giant bubble would sometimes float in the centre of the liquid and sometimes remain attached to the heater surface. When the bubble remained attached – which Merte calls a "dry out" – it effectively insulated the liquid from the heater, preventing further boiling and causing the heater temperature to soar. Knowing precisely the conditions when this occurs is vital for designing spacecraft systems that might rely on boiling. "If you understand a phenomenon better, then you can design for it closer to its limits for optimization," Merte says. "If you have an uncertainty, then you're going to design conservatively."

Today's researchers continue to expand the knowledge base laid by these experiments. With a better understanding of the physics of boiling fluids, engineers will be able to design improved cooling and power systems to serve people in the future -- both in space and here on Earth.

16. Regarding the knowledge of the process of boiling in space, its space programme-related application would be for

a. the development of more efficient cooling systems for space crafts.
b. the designing of solar power plants, used to generate power.
c. its applications on the phenomenon of boiling on earth.
d. the development of more efficient power plants on Earth.

(A) Only a (B) a and b
(C) Only c (D) c and d

17. Scientists are trying to study the phenomenon of boiling in space because
(A) the process is more applicable for space.
(B) fewer variables tend to influence the process there.
(C) it helps to improve the understanding of the basics of the phenomenon of boiling.
(D) of the possible applications of the process for their air travel.

18. When a liquid is boiled in space,
(A) the hotter layers in the liquid rise higher.
(B) the heat is spread within the liquid.
(C) a very large bubble is formed which pulsates within the liquid.
(D) the vapour bubbles move rapidly to the surface.

19. The earlier experiments conducted by Merte were useful in
(A) creating a situation of no gravity for a negligible period of time.
(B) providing some guidance for designing the shuttle based experiment.
(C) building a boiling chamber to be used for the subsequent boiling experiments.
(D) All the above situations.

20. Merte used quartz for the boiling chamber because it is
(A) a good conductor of electricity.
(B) transparent.
(C) translucent.
(D) Both (A) and (B)

21. The statement, "if you have an uncertainty then you are going to design conservatively", means
(A) a better understanding of a situation helps us to design useful equipment.
(B) inadequacies in understanding phenomena stall innovation.
(C) if a situation is not better understood, then the standard of the equipment designed is below optimal.
(D) if a phenomenon is not completely studied, then the equipment designed will not serve its objective.

22. Which of the following are the results of Merte's Pool boiling experiment?
(A) The position of the bubbles in the liquid is determined by the temperature conditions of the experiment.
(B) The heater temperature increases when the bubble is attached to its surface.
(C) Knowledge of the condition of "dry out" is essential for designing space craft systems that rely on boiling.
(D) All the above

PASSAGE – IV

Athletes have been forbidden from using artificial stimulants since the 1920s, and since the 1970s, they have had to give urine samples to show they are not pumping up their muscles by injecting anabolic steroids – a class of synthetic drugs that promote tissue growth. But it now appears that runners and jumpers in several countries have been using a hitherto unknown steroid, tetrahydrogestrinone (THG), which is believed to have been designed specifically to evade the sporting authorities' doping tests. In October, America's governing body for athletics, the USA Track and Field (USATF) confirmed reports that four American athletes, as yet unnamed, had tested positive for the drug. Britain's fastest sprinter, Dwain Chambers, also admitted having tested positive for the drug, though he denied having taken it knowingly.

A firm from the San Francisco area BALCO, which supplies nutritional supplements to sports men (including Mr. Chambers), has denied allegations that it concocted and distributed the new drug. A federal grand jury is investigating the firm and had subpoenaed a number of America's best-known athletes, including two base ball stars, Jason Giambi and Barry Bonds, though no allegations of drug abuse have been made against them. Terry Madden, the head of the US Anti-Doping Agency, said: "I know of no other drug bust that is larger than this, looking at the number of athletes involved".

THG was unknown until a sports coach anonymously sent a syringe full of the substance to a testing laboratory in the University of California, Los Angeles. A new test to detect the presence of the substance in body fluids was hurriedly developed. Then the World Anti-Doping Agency (WADA), a body set up after a drugs scandal at the 1998 Tour de France, said it had sent details of how to test for THG to all accredited dope-testing laboratories throughout the world.

Anti-doping laws and their enforcement vary widely in different countries and between different sports in the same countries. That is why, a conference of the United Nations body, UNESCO, voted to create an international convention against doping, whose aim is to harmonize anti-doping laws around the world. For as long as there have been competitive sports, athletes have taken performance-enhancing substances, going back to the stimulating potions taken by ancient Greek sportsmen. In the 19th century, cyclists and other endurance athletes kept themselves going with caffeine, alcohol and even strychnine and cocaine. In 1928, the precursor of the International Association of Athletics Federations (IAAF), became the first world sporting body to forbid stimulants. But the ban was ineffective because there was no way of testing for many of the stimulants. The invention of artificial hormones in the 1930s made the problem more severe.

In the 1960s, the world bodies for cycling and soccer became the first to introduce doping tests. However, there was no reliable test for steroids until the 1970s. Once it was introduced, there was a big rise in the number of athletes being disqualified, culminating in the scandal of Ben Jonson, who broke the world 100-meter sprint record at the 1988 Olympics, only to be stripped of his gold medal afterwards, when his urine sample showed the presence of steroids. Mr. Jonson insisted that he was far from alone in using banned substances and he seems to have been right: in the 1990s, as improved doping tests made it harder to get away with such cheating, the results achieved by top-level athletes in some sports showed a notable decline.

So far, it is unclear how long athletes have been taking THG, or how widespread is its abuse. The scandal regarding the four American athletes prompted USATF to announce a "zero-tolerance" policy on doping, including plans to impose lifetime bans on athletes caught using illegal substance, rather than the current two-year bans.

The side-effects of steroid abuse range from liver and kidney cancer to infertility, baldness and even transmission of HIV (if the syringes used to inject the drug are shared). But there seems no limit to the lengths that some athletes are driven to by their will to win. In the 1970s, some tried "blood boosting"-reinfusing themselves with their own blood to boost the

level of oxygen, a practice banned by the International Olympic Committee in 1986. Some then turned to erythropoietin, a blood-enhancing drug. Though this was banned in 1990, a reliable test was not available until the 2000 Olympics. Now, though a test for THG has been developed, there are worries that some athletes are taking human growth hormone. Teams of scientists in various countries are rushing to have reliable test for this substance. Even if they do, the pace of medical discovery means that more new substances capable of boosting athletic performance without detection are bound to follow. The race to keep up with the drug cheats looks like going on forever.

23. From the passage, we can conclude that
(a) the author is sure about the invention of a fool proof drug detection test in the near future.
(b) new performance enhancing substances will be invented by the next Olympics.
(c) in the race between athletes and authorities over drug abuse and its detection, the former seem to be in the lead.
(d) athletes take great risks in order to win.

(A) a and b are true
(B) b and c are untrue.
(C) c and d are true
(D) a and d are untrue

24. Which of the following statements is not true according to the passage?
(A) Anti-doping laws are not uniform through out the world.
(B) The will to win had driven even ancient Greek athletes to play foul.
(C) Ben Jonson was stripped of his gold medal after the 1988 Olympics.
(D) No test has been devised to check if athletes are using THG.

25. The ban on stimulants was ineffective in 1928 because
(A) it did not cover caffeine, alcohol and cocaine.
(B) it could not break the practice that dated back to ancient Greece
(C) the regulatory bodies did not have an international status.
(D) of the absence of tests for many drugs.

26. When the USATF talks of zero tolerance regarding doping, it translates into
(A) framing of strict laws and their enforcement regarding doping.
(B) imposition of life-time ban on athletes taking drugs.
(C) stripping of winners of their medals, if they test positive in the dope test.
(D) devising drug tests that have retrospective effect.

27. The reason for a large number of athletes getting disqualified after the 1970s could probably be attributed to
(A) an increasing drug dependency in athletes.
(B) Ben Jonson's revelation that many athletes took banned drugs.
(C) the introduction of doping tests.
(D) the emergence of reliable tests for steroids.

28. According to the passage we can infer that the International Olympic Committee
(A) banned the practice of blood boosting adopted by some athletes.
(B) was responsible for creating WADA.
(C) mooted the zero-tolerance policy on doping.
(D) maintains double standards in implementing anti-doping laws.

29. There was a notable decline in the achievements of top level athletes after the 90s because
(A) drug dependence had weakened them.
(B) the scandal of Ben Jonson demoralised athletes.
(C) the presence of sophisticated doping tests deterred athletes from substance abuse.
(D) athletes became aware of the side-effects of taking drugs.

30. The new drug THG has come under world spotlight because
(A) it involves a number of athletes.
(B) it is a designer drug that had hitherto escaped the testing regime.
(C) four American athletes tested positive for the drug.
(D) Dwain Chambers admitted to having tested positive for the drug.

31. Identify the statements that are true, according to the passage.
(a) Anabolic steroid is a plant extract that promotes vigour.
(b) Dwaine Chambers is of British nationality.
(c) BALCO is a firm supplying nutritional supplements laced with THG.
(d) THG came out probably due to a tip-off from a sports coach.
(e) The establishment of WADA is in response to the drugs scandal of 1998.
(A) a, b and c (B) c, d and e
(C) b, d and e (D) All the above

32. Which of the following options summarizes the last para of the passage most appropriately?
(A) Undeterred by the alarming side effects of steroid abuse, athletes continue to abuse drugs to boost their performance and though tests for banned drugs continue to be developed, more performance enhancing drugs continue to be developed and the race to keep up with the drug cheaters seems to go on endlessly.
(B) Despite the alarming side effects of steroid abuse, athletes are so driven by their desire to win that they continue to take banned drugs because there are no reliable tests for testing drugs and the process of drug abuse seems to go on forever.
(C) In spite of the serious side effects, such as liver and kidney cancer, infertility, baldness, of drug abuse athletes continue to use banned drugs indiscriminately in order to boost their performance and although tests for banned drugs continue to be developed, more drugs which enhance athletic performance continue to be developed and the race to keep up with the drug cheaters goes on forever.
(D) Although drugs which enhance athletic performance have serious side effects, athletes continue to use banned drugs and in spite of tests for banned drugs being available, more new substances, capable of boosting athletic performance continue to be developed thanks to the rapid pace of medical discovery.

PASSAGE – V

Ever since Edgar Allan Poe laid the foundations of horror and detective fiction in the 1830s – and was soundly reviled for this impertinence in his native land – genre and literary authors have been wary of one another. The history of high literature is also the history of genius; of the Shakespeares and Byrons whose unique talents have bewildered the world. Throughout genre fiction's briefer lifetime, however – from Poe to le Carrè via Verne – the contract between audience and the author has always been the most important matter. This is what genre signifies: you aim to please them at least as much as yourself, and you aim to sell. In a history thick with pulps and penny dreadfuls, no area of fiction has been more thoroughly commercial in its instincts than genre fiction, and when audience is the bottom line, this means sales. The number one slot on the New York Time's bestseller list is to a genre writer what the National Book awards is to a literary novelist: a badge of ultimate respectability. Literary books sometimes sell well, of course (though not as well as genre works), and praise is sporadically wafted from the ivory towers towards deserving outsiders (though never as fulsomely as upon literary insiders). **But little love is lost on either side.** Highbrows envy lowbrows sales, lowbrows envy the accolades of the establishment, and its guardianship of posterity.

At a time of increasing fluidity in all areas of the arts, it is astonishing how clear this basic divide remains. Authors with incomes and sales beyond the wildest dreams of Nobel laureates continue to pine for a mention in the *Times Literary Supplement.* Professors of poetry with shelves of awards lie awake at night hoping that attendance at their next reading will hit double figures. As Jilly Cooper pithily put it, Jeffrey Archer and I cry and cry for a kind word in the *Guardian*, and writers that get a kind word in the Guardian…. cry and cry for our sales". This is the result in part of a fracture in the way we are taught to read, and in part of the startling moral weight that continues to be attached to the choices we make as readers.

The satisfactions of genre fiction are both mundane and atavistic. It combines the comfortable pleasure of conventions with the tides of conspiracy, horror, sex, violence and wonder that genre's restraints allow authors to channel. Unlike "proper" literature, with its emphasis on originality and authenticity, the best genre fiction is both vicarious and predictable: it offers a subtle refinement of known thrills. As far as many of our educators are concerned, this makes genre writing not just bad literature but "bad" literature – something that drags us away from clear thought into a wickedly fantastical realm. It was in something like this spirit that FR Leavis preached his "great tradition" to the 20th century. The act of reading was to be a substitute for religion, making the best minds of a generation better and the worse somewhat less bad – and the discipline of literature was to be rescued from the accusations of unseriousness that had dogged it since it began to be taught at universities at the start of the 20th century. Words, for Leavis, were a battleground upon which the souls of readers were won and lost. Something like this attitude persists even in the realm of 21st century letters.

33. Which of the following ideas has been suggested in the passage?
(A) Genre fiction has taken the place of literary fiction in the 20th century.
(B) The line of distinction between pulp fiction and literary fiction is getting blurred.
(C) There is no bridging the gap between genre fiction and literary fiction.
(D) The divide between genre fiction writers and literary fiction writers is a recent phenomena.

34. The sentence 'But little love is lost on either side' in the first para refers to the conflict between
(A) readers and writers.
(B) writers and critics.
(C) writers of fiction and writers of non-fiction.
(D) classical writers and pulp fiction writers.

35. It can be inferred from the passage that educators do not approve of genre fiction primarily because
(A) it does not nurture creativity and innovation.
(B) of the overdose of sex and horror themes.
(C) of its poor content and style.
(D) if gives a go by to reality and dwells on fantasy

	Passage 1	Passage 2	Passage 3	Passage 4	Passage 5
No. of words	822	868	1106	802	569
No. of Qs.	9	6	7	10	3

EXERCISE – 5
(Recommended Time : 60 Minutes)

Directions for questions 1 to 35: Read the given passages carefully and choose the best answer for the questions that follow each passage.

PASSAGE – I

My father died twice. The first time was in an ambulance when he was rushed to the hospital after suffering a heart attack. His heart had stopped beating for several minutes before the paramedics were able to revive him. Afterwards, he described a vision he had as he lay without a pulse in the speeding ambulance. He saw his brother Joe, who had passed away some years earlier, dressed in flowing white robes sitting on a kind of throne at the top of a hill. As my father approached, Joe was laughing uproariously and waving his hand, urging him to turn around and go back. The second time my father died was about three years later. Again it was his heart that failed him. This time though, his brother Joe wasn't there to wave him back to this world.

What my father encountered in the back of that ambulance was a classic example of a near death experience (NDE). According to statistics compiled by the International Association for Near-Death studies, some 35-40% of people who have had a close brush with death, later report an NDE. They commonly tell of a feeling that the self has left the body, a sensation of moving through a dark space or tunnel, a vision of golden or white light and the receipt in some form of the message "your time has not yet come."

Are NDEs evidence for life after death or are they just the last, desperate projections of the dying brain? While modern science can explain why we age, it tells us very little about why we die, much less about what happens if anything – after death. "In death, science is pitted against an impenetrable information barrier", says David Darling, an astronomer and physicist who has written several books on death and dying. "When we die, each of us makes a solo flight across that barrier and give up all possibility of sending back news of what we find."

Many people don't require hard evidence about what's on the other side. They are satisfied with the explanations provided for millennia by the world's religions. But for those not blessed with religious faith, science may never be able to prove whether the NDE is a news flash from the hereafter or just one of the mind's grandest illusions. Darling suggests there are two events that approximate death: the near death experience itself and the memory loss suffered by victims of Alzheimer's disease and traumatic brain injury. "Losing your memory is perhaps as close as we can come to death without actually dying", he says. "The person is dead because the memories are gone. And memories are the only things that give meaning and identity to our lives."

If the difference between life and death is a question of memory, could death's sting be parried by replacing the fragile human memory with an infallible computerized one? In his book, 'Design For Dying' completed earlier this year before he died from prostate cancer, psychologist, Timothy Leary explored various strategies for achieving immortality. One of the most promising tactics, he suggested is to transfer an individual's consciousness into a supercomputer before death. This could be done by using multimedia technologies (video, audio CDs) to record all your thoughts, feelings and experience onto a computer equipped with artificial intelligence. The result; a real life ghost in the machine. Endowed with all your memories, the new computerized you would be able to chat and interact with people just as you would – except it would be doing so long after you had died.

The idea is not as far out as it seems. According to Chris Winter, Peter Cochrane and Ian Pearson, futurologists at British Telecom's Advanced Research Department, computers (or soulcatchers) with storage and processing capacities equivalent to the human brain will be developed within the next 20 years. "We will be able to transfer human minds into some machine form", says Pearson. Perhaps our only chance of making full use of such technology is to become part of the technology itself.

But are these intimations of immortality real? The silicon soul described by Leary is actually not a captured consciousness at all, but an elaborate interactive home video of history. As useful and entertaining as that might be, it's a far cry from life after death. And how big an improvement is it over say the good old fashioned book? We can already make contact with some of the world's great losses simply by dipping into the novels of James Joyce or the poems of John Donne.

In his book 'Dancing on the Grave', British anthropologist Nigel Barely describes a trip to Africa during which a group of tribal elders explain their idea of reincarnation by visiting a local brewery. "You could see returned bottles through a plate glass window", Barely writes, "entering via one door, whirling from machine to machine being endlessly refilled with squirting beer relabeled and pushed out through another door....Life, death, spirit and body. Now you have seen," the elders said. Though it comes from Africa, this little episode is a fitting metaphor for Western attitudes towards death: the body is a machine and death is a spanner in the works. But you don't have to postulate the existence of an eternal soul to acknowledge that there may be some things in the universe, like death, that we just can't fix. Let's not be too proud that our technological prowess may one day bring immortality. Never seek to know for whom the computer crashes, it crashes for thee.

1. As per David Darling, "an impenetrable information barrier" could be
(A) modern science. (B) an NDE.
(C) a dying brain. (D) death itself.

2. The tone of the passage is
(A) exploratory. (B) analytical.
(C) informative. (D) investigative.

3. Identify the true statements:
   a. According to the International Association for Near-Death studies, a quarter of people who die, experience an NDE.
   b. Memory loss in Alzheimer's patients is like a NDE according to Darling.
   c. Timothy Leary is the author of the book, 'Design For Dying'.
   d. Nigel Barely is the author of the book "Dancing on the Grave".

   (A) a and b (B) a, b and d
   (C) b, c and d (D) a, b, c and d

4. According to the passage, computer and its memory come into play,
   (A) when man wants to achieve immortality.
   (B) if a person wishes to create his ghost in his machine.
   (C) when a person becomes a patient of Alzheimer's disease.
   (D) if memory is used as a single factor to differentiate between life and death.

5. For an experience to be considered an NDE, a person
   (A) should cheat death without suffering any physical harm.
   (B) must live at least for a brief period of time without facing an imminent death.
   (C) should be able to verbally elucidate what he had gone through.
   (D) should escape death by a hair's breadth.

6. When speaking about immortality, the author says that
   (A) one can live forever through one's literary work.
   (B) computer programs can never be fool proof.
   (C) silicon soul is beyond destruction.
   (D) as long as one's memories are alive, one can never die.

7. What can be understood regarding modern science from the passage in relation to NDE?
   a. It offers no solid theory or explanation about what happens after death.
   b. It does not specify the conditions that make us age.
   c. It offers a sort of explanation on NDE to those who do not harbour any religious beliefs.
   d. It cannot distinguish clearly between the experiences one undergoes when one is affected by Alzheimer's or amnesia.

   (A) a and d (B) a and c
   (C) b, c and d (D) a, b and c

8. We just cannot fix
   (A) immortality. (B) computers.
   (C) death. (D) None of these

PASSAGE – II

Few marketers, if any, are likely to acknowledge the humble ball point pen as the harbinger of a socio-cultural revolution that has transformed the way they do business in India. The ball point pen is, after all, just a use-and-throw product like any other, they'll contend. That's precisely the point. It is an easily replaceable product. When it stops functioning, you no longer run out to buy a refill – you simply throw it away and replace it with another. If you misplace one, it's hardly worth your while rummaging through your desk looking for it. A much simpler solution is to borrow one from your colleague – who never expects to get it back.

What makes the ballpoint pen special in the Indian context is the fact that until its advent in the form of the cheap plastic models that flooded the market in the early 90s 'Disposability' as a concept was both alien and an anathema to the Indian consumer. Most marketers grappled with the fact that the Indian consumer continued to use products long after they were out of vogue. Forget that – most Indian households had made a fine art out of recycling Amulspray, Farex and Dalda tins, using them for storage. Says A.P. Arora, professor of marketing at MDI, Gurgaon, who has been talking of the ballpoint pen's impact on marketing in India ever since the mid-1990s when he was a professor at IIM – Calcutta. "No one ever said that the ballpoint pen should be thrown away. But thanks to its low price and easy availability, it just became one of the first disposable products'.

Today, disposability is here to stay. Be it mobile phones, cars, TV sets or apparel, the upwardly mobile Indian is constantly disposing of the old and trading up for newer products. For instance, up to three years ago, the replacement cycle for TVs and washing machines was eight to 10 years – today, that figure is down to four to five years. And in the case of DVD players, it's even as low as two years, reveals Vivek Sharma, VP – Marketing & Sales, MIRC Electronics. 'Because DVDs are so cheap, it's easier to replace them. The incremental saving through servicing is not worth it for many." Longevity isn't necessarily a desirable virtue for Indians, and increasingly, as products and brands become a mirror of self-image, consumers are replacing and upgrading faster than ever before. As Aniruddha Deshmukh, President – Retail, Raymond, points out, in apparel, party wear and casual wear sees a high velocity of change. "Youth fashion, uniqueness and contemporariness are expressions of the self and drive disposability. Formal wear, by its 'official' construct, has greater longevity."

So what has led to this change? Santosh Desai, CEO, Future Brands, theorises that the 'mindset of scarcity' that once existed – thanks largely to the socialistic leaning that India as a nation had – is now giving way to consumerism. Post-liberalisation, there has been a slow but steady redefinition of the term 'value', which in turn has led to Indians warming up to the concept of disposability. He says, "Earlier, anything that was material had value, hence it was never disposed of, be it containers or durables. Today, materiality is no longer as imposing, and in a sense the immortal object has become mortal". One of the reasons for the onset of this mortality was the choice paradigm that was ushered in thanks to liberalization. Partha Sinha, Chief Strategy Officer, Publicis India, terms the pre-liberalisation era as one where the entire nation was bound by a "frugality code". He points out that in those days consumers had little or no choice when it came to products, which were anyway never easily available. "That code is dying today. While we still are not a use-and-throw country, certain sections have definitely become a use-and-replace nation. So, disposability is more and more prevalent."

No category represents the sway of disposability better than mobile phones. Hardly anyone could have imagined that Indian consumers would be willing to replace a perfectly functioning gadget within a year of purchase simply because a newer flashier model with more features was available. But that's reality as mobile phone companies are busy cranking out newer models. Devinder Kishore, Director – Marketing, Nokia India, points out that three years ago, the mobile handset industry as a whole launched less than 20 models in India in a year. "Now you have anywhere between 35 – 40 models being introduced in one half, "he says. Pranesh Misra, COO, Lowe, agrees that a lot of this has to do with supply – a constant flow of newer and edgier products – propelling consumers into trading up constantly.

However, the consensus is that disposability in the Indian context cannot be construed as use-and-throw in the traditional sense. Few Indians just throw away their old TV sets. Most, for example, will exchange theirs for better TVs or try and get a rebate on the next TV they buy.

9. The mind set of the Indian consumer differs from that of his western contemporaries in
(A) expecting value for money.
(B) re-using products till they are fully worn out.
(C) extracting their money's worth from products.
(D) expecting some value even from items he is ready to dispose.

10. All the following are reasons why people dispose the old and buy new EXCEPT
(A) It is easier and more convenient to buy new than to repair the old
(B) Many people have greater disposable income than before.
(C) They enjoy buying new things.
(D) People wish to keep up with the fashion of the day.

11. The mobile phone marks a turning point in the attractions of disposability because it is a category where
(A) a functioning product is replaced by newer ones with more features.
(B) the greatest number of models are available.
(C) obsolescence is the most prevalent.
(D) the relationship that people have with products is transient.

12. How has the 'immortal' become 'mortal'?
(A) Products are no longer made to last a life time.
(B) Products that were once used endlessly are now disposed.
(C) No one thinks of buying products that have long shelf life.
(D) Products – national and international-are easily available.

13. The ball point pen became a symbol of a socio- cultural revolution in India because
(A) it was so cheap that replacing the refill was a waste of time.
(B) plastics flooded the market making the pens cheap.
(C) it was a fashion statement more than an article of use.
(D) it marked the beginning of a throw-away culture.

14. Which of the following statements is not TRUE according to the passage?
(A) Indians were averse to the concept of disposability in the pre-liberalization era.
(B) There is now an unprecedented rise in replacing and upgrading products.
(C) After economic liberalization India has become a use-and-throw nation.
(D) The influence of disposability is best represented by mobile phones.

PASSAGE – III

Christianity attempted to suggest that the Universe is a theatre of change and imperfection; and at the same time to teach that God is perfect and unchanging. Those men who sought to reconcile Christianity with Greek philosophy were known as Apologists. They taught that the universe contains traces of something different from pure matter and thus points to a God who is eternal, unchanging and good. This God is the first cause of everything in the Universe, the creator of the Universe. For them, the ideas of Plato and the forms of Aristotle become God. God is the eternal and abiding principle in all change, the eternal pattern which never changes. He is the unity of all forms, all ideas. Through divine emanations, He has created the world and everything in the world, in so far it is a part of God, strives to be more like God and try to return to Him. The creator fashioned the world from matter which He created out of nothing. The pattern of the world is in His mind.

One of the greatest thinkers among these early Christian philosophers, one who worked out the theory of the Apologists most completely was Augustine, who became Saint Augustine. God, he taught, created matter out of nothing and then created everything in the Universe. The forms which He impressed upon matter were in God's mind from the beginning of time and even before God existed, before there was any time. Indeed God created time and space also. Thus everything that is or ever shall be is a creation of God and must follow His laws and will. Here again, we see the influence of the Greeks in the belief that the Universe is the result of the coming together of matter and form.

But the Christian thinkers went further than the Greeks in that they attempted to account for the existence of matter.

You will remember that the Greeks simply accepted matter as well as the ideas or forms as existing from the beginning. The Christians put the ideas or forms in God's mind and went on to say that God created matter out of nothing. After He had created matter, He had something upon which to impress ideas or forms.

Further, these Christian philosophers taught that the ideas or forms, being in the mind of God, were divine. Therefore in so far as things are ideas or forms impressed on matter, they seek God and try to return to Him. But matter holds them back. Matter which God has created is the principle which makes it necessary for things to struggle in their attempt to become divine.

Augustine lived during the fourth century of the Christian era. He saw the great Roman Empire which had been established by Caesar falling to pieces and watched the barbarians from the north gradually moving down into the empire and even toward Rome. He lived near the beginning of that period in history known as the Dark Ages, a period when these ignorant, crude barbarians swarmed over the Roman Empire and destroyed the civilisation which had been building since the early days of the Greeks.

15. Which of the following can be a part of what St. Augustine would have taught?
a. All creations of God will follow His laws and will.
b. God created matter out of nothing.
c. God impressed forms upon matter to create everything in the universe.
d. There is nothing that can be constant in this universe – even time, space and matter.

(A) a and b only (B) b and d only
(C) b, c and d (D) a, b and c

16. Regarding Greek philosophy, choose an alternative that is true as per the passage.
(A) Greek philosophers might not have attempted to account for matter while explaining the creation of universe.
(B) It says that the universe is the manifestation of interplay between change and imperfection.
(C) It strongly believes that God is the eternal unchanging good.
(D) All the above.

17. Identify the statements which are applicable to St. Augustine and choose your answer.
a. He is the greatest Roman philosopher.
b. He is believed to have given an exhaustive doctrine of the Apologists.
c. He witnessed the great Roman Empire crumble and disintegrate.
d. He lived during the fourth century of the Christian Era.

(A) a, c and d (B) b, c and d
(C) a, b and d (D) a, b, c and d

18. According to the passage which of the following defines God?
(A) God is eternal, changing and good.
(B) God created matter and philosophers.
(C) God is the unity of all forms and ideas.
(D) The pattern of the world is Himself.

19. According to certain Christian philosophers, though all forms are created by God,
(A) they still have to struggle to prove their divinity.
(B) matter present in them impedes their attempts to return to their creator.
(C) all may not qualify to be called divine.
(D) it is surprising to find forms like barbarians that harm other forms.

20. Which of the following can best describe the relationship between the theories of Greek philosophy and the Apologists?
(A) Compatibility
(B) Abstrusion
(C) Estrangement
(D) Tolerance

21. The passage has most probably been taken from a
(A) book on history of philosophy.
(B) book on God's creations.
(C) book on Greek history.
(D) None of the above

22. Which of the following options summarizes the 1st para of the passage most appropriately?
(A) Unlike the believers in Christianity, the Apologists who sought to reconcile Christianity with Greek philosophy, believed that God who is eternal and unchanging constructed the world from matter which he created out of nothing.
(B) While Christianity believed that the universe is imperfect and is constantly changing and that God is perfect and unchanging, the Apologists who tried to reconcile Christianity with Greek philosophy believed that God, who is eternal, created the world form matter which he created out of nothing.
(C) Christianity attempted to suggest that the universe is imperfect and changing, while God is perfect and unchanging and the Apologists, who sought to reconcile Christianity with Greek philosophy believed that God, the eternal, created the world from matter which he created out of nothing.
(D) Both, the believers in Christianity and the Apologists who sought to reconcile Christianity with Greek philosophy believed that God who is eternal, created the world from matter which he created out of nothing.

PASSAGE – IV

The word "Chan" is an abbreviation of "channa", a Chinese translation of the Indian Sanskrit term "dhyana" or "meditation". In Japanese, the Chinese character for "chan", is read "zen", the term by which this form of Buddhism is most commonly known in Europe and America today. One of the characteristics of Chinese civilization was its tendency to bureaucratize almost every aspect of social and religious life. Chinese Buddhist monasteries were no exception; monks were organized into groups with clearly defined duties and privileges. Certain groups of monks were designated preachers, others reciters, others disciplinarians and still others mediators. Chan monks appear to have had some connection with the group whose primary occupation within the monastic institution was to meditate. Most of what we know about the Chan monks is contained in a distinctive genre of Buddhist literature known variously as "lamp records" or "discourse records". These texts were first compiled and published in China around the tenth century and their production has continued up to the modern period throughout China, Korea and Japan.

Chan came to public attention in China as a distinct form of Buddhism sometime around the end of the seventh century. There appeared a group of monks at that time acting and talking in ways that challenged the kinds of knowledge and technologies that Chinese Buddhists and the society at large had held in highest esteem for generations. Their religious practices and modes of discourse bore little resemblance to those of either their predecessors or fellow Buddhists. Not only did they not do what was expected, they often engaged in actions that would have been regarded by Buddhist and non-Buddhist alike as quite shocking. Almost nowhere in this literature do we read that they studied, recited or expounded the Buddhist scriptures known as sutras. Yet those very scriptures were regarded by almost all Buddhists as nothing less than the words and fundamental insights of the Buddha himself. Study of these texts was fundamental to monastic training. Worse, these audacious monks often seemed to treat the scriptures with downright disrespect. In addition, they are almost never represented as engaging in meditation, in spite of the central role that practice has played in most Buddhist traditions. And contrary to most Chinese pedagogic practice, those regarded as masters or teachers generally responded to queries from apparently earnest seekers in what seems a most illogical, dismissive, or even abusive manner.

To appreciate who they were and what the significance of their behaviour and thought was, it is useful to understand something of the medieval world of which they were a part – the political, social and religious institutions that called forth their unconventional behaviour.

Chan rose in China during a period in which Buddhism was enjoying immense popular support ranging all the way from lowly peasants to the nobility and often reaching even to the emperor himself. Though it had its critics, Buddhism was championed by some of the most educated and elite members of Tang (618-907) Chinese society. In Changan, the Tang capital, the number and size of Buddhist temples and monasteries generally far surpassed those of the Taoist temples. These massive complexes were constructed by China's most skilled craftsmen from the finest woods and filled with beautifully carved or cast images of the buddhas and bodhisattvas. One catches glimpses of some of these images, discreetly placed in the background of a number of Tsai Chih Chung's drawings. Elaborate and detailed paintings of Buddhist paradises covered the walls. Hand copied Buddhist scriptures and commentaries, numbering in the hundreds and in some temples, thousands of volumes, filled their libraries. The sounds of tolling the great temple bells and drums were omnipresent around these establishments. The smell of incense imported from Central Asia filled the air. These medieval Buddhist monastic complexes were truly centres of wealth, knowledge and power, resembling, if not matching, that of the imperial palace itself. This is not surprising since much of the wealth that went into the monasteries had come from the imperial coffers and donations from the nobility of Changan. Chan monks appear to have been peripheral to much of this power and wealth in the beginning.

It might be assumed that religious knowledge, such as that set forth by Buddhists, though perhaps philosophically demanding at times, was otherwise a relatively simple matter particularly when compared to the complexity of modern knowledge. But in the eyes of the medieval Chinese who for hundreds of years were the recipients of what must have seemed an endless stream of Buddhist texts and teachings flowing out of India, it no doubt appeared utterly overwhelming. This knowledge dealt with a wide range of topics from a variety of standpoints that were often in conflict with each other. The problem was threefold. First, the texts had to be translated from Serindic Languages, radically different in structure and style from Chinese. Second, once translated the great number and variety of Buddhist scriptures made available in Chinese could be read only by the literate few, an exceedingly small minority. Third, study of the scriptures revealed unexpected contradictions and ambiguities in the teachings. China's Confucian traditions had long elevated the role of the scholar as interpreter of difficult and arcane knowledge. Thus, the obvious solution to this threefold problem was to create and fund research complexes with certain of the elite monasteries in which highly trained scholar monks could translate, study and interpret these scriptures. Many of the monks who devoted much of their lives to work within these institutes rose to the highest status within the Chinese Buddhist establishment. Their output was prodigious and highly regarded in elite society.

These research complexes, rather than attempting to account for the entire corpus of Buddhist teachings, tended to specialize in on or a group of related scriptures with a particular orientation distinct from those of other scriptures., Thus monks became specialists in interpreting certain types of Buddhist teachings. It was also their responsibility to provide oral commentary on their scriptural specialities for the benefit of the general public, and particularly the illiterate. Implicit in their approach was the well respected notion that a long and arduous course of scripture study would eventuate in an authoritative knowledge, if not the supreme goal of Awakening. These monks were one of the dominant factions in the monasteries of Changan.

23. Chan Buddhists shocked their contemporaries because
   a. they did not study the Sutras.
   b. they showed no reverence for the scriptures.
   c. the masters dismissed the questions of the disciples.
   d. they engaged in meditation.
   e. their religious practices were obscure.

   (A) a, b and c (B) c, d and e
   (C) d, e and a (D) b, c and d

24. The bureaucratizing of Chinese Buddhist monastries led to the
   (A) indifference of Buddhist monks to religious practices.
   (B) dissipation of interest in Buddhism.
   (C) breaking up of functions, that is, specialization in specific areas.
   (D) compilation of Buddhist literature.

25. In Chinese society, Buddhism enjoyed the support of
   (A) lowly peasants. (B) nobility.
   (C) emperor. (D) all the people.

26. We can guess that Buddhism was popular in ancient China by
   a. the sounds of tolling of great temple bells.
   b. beautifully carved images of Buddha and Bodhisattvas.
   c. thousands of volumes of hand copied Buddhist scriptures.

d. Buddhist monastries being centres of wealth, knowledge and power.
e. the incense imported from Central Asia.

(A) a, b and c (B) b, c and d
(C) c, d and e (D) d, e and a

27. Tsai Chi Chung's drawings has this in the background :
(A) Buddhist temples and monastries.
(B) Taoist temples.
(C) Beautifully carved images of Buddha and Bodhisathvas.
(D) Paintings of Buddhist paradise.

28. We can infer that prior to Buddhism, the religion in China was probably
(A) Taoism
(B) Confucianism.
(C) Both (A) and (B)
(D) Neither (A) nor (B)

29. Medieval Chinese people were over- whelmed by Buddhist religious knowledge because
a. they were steeped in the Confucian tradition.
b. translation from a structurally different language created problems.
c. it could be read by only a few literate people.
d. there were some obscurities and contradictions in the teachings.

(A) b, c, d (B) a and b
(C) a and d (D) All the above

30. The Chinese Buddhist monks
(A) were highly regarded in society.
(B) devoted their time to translate and interpret scriptures.
(C) contributed impressively to Buddhist literature.
(D) All the above

31. "Lamp records" were not published in one of these countries.
(A) China (B) Korea
(C) Thailand (D) Japan

32. A suitable title for the passage
(A) China in the medieval ages.
(B) Chinese Buddhism - A history.
(C) Origin of Chan Buddhism.
(D) Tang's history.

PASSAGE – V

Two representations have dominated public perceptions of the largest living marsupial carnivore, the Tasmanian devil. One is the voracious, hurricane-like, innocent savage, Taz, of Looney Tunes cartoon fame. The other, familiar in nineteenth-and twentieth-century rural Tasmania, is the ferocious predator and scavenger that wantonly kills livestock, and perhaps even people, should they become immobilized in the wilderness at night. Devils can take prey nearly three times their size and eat more than a third of their body weight in a sitting. Even so, it is hard to imagine how this species, being only slightly larger than a fox terrier, could be so maligned in name and image.

In *Tasmanian Devil: A Unique and Threatened Animal*, David Owen and David Pemberton delve into devil biology to convey the true nature of the beast once known to science as Sarcophilus satanicus (now S. Harrisii). Fact and fiction are teased apart with sound science and tempered speculation. The devil's behaviour and physical appearance are explained in terms of its unique ecological position as a solitary, nocturnal predator that relies heavily on communal scavenging. Its larger cousin, the thylacine (Thylacinus cynocephalus), is now extinct, so the devil's present ecological interactions and selection pressures may differ somewhat from those under which it evolved. This makes the author's comparisons with placental analogues- the ratel (honey badger), wolverine and hyena – particularly instructive. Although a useful starting point for those with an academic interest in the Tasmanian devil, this book, with its well chosen photographs and historical illustrations, has far wider appeal.

The humour and tragedy associated with early European settlers' misunderstanding of the devil are neatly woven together, and the author's arguments that the devil is not a rural menace are appealing. But I wonder whether the use of anecdotal evidence to lay the blame for poultry and trap raiding on the even rarer Spotted-tailed Quoll (Dasyurus maculates) only extends the tyranny of prejudice.

Peripheral connections to the devil story provide light relief. Particularly well fleshed out is the link between Theodore Flynn, who studied devil reproductive anatomy, his actor son Errol, who dubbed himself 'the Tasmanian devil', and Errol's employer, Warner Brothers, who have profited immensely from Taz cartoons and merchandising.

The inclusion of a wide array of reports and newspaper articles provides the reader with access to a mostly bygone mood of malevolence towards the devil, as well as to the voices that began to change this attitude. It is particularly sad that having survived being shot, poisoned, and trapped for bounties, and finally winning considerable public affection, devils are now succumbing to devil facial tumour disease. The authors relate the few clear facts about this hideous affliction, which seems to spread through biting and is devastating devil populations across much of Tasmania. It is unknown whether the disease is an old foe or whether its origins lie elsewhere, for example, in the accumulation of anthropogenic carcinogens. At this and other points of uncertainty I was left wondering what the Tasmanian aboriginals could have told us about the devil, had misunderstanding, persecution and disease not led to their own demise.

The authors have succeeded in demystifying the Tasmanian devil and have revealed a fascinating creature; we would be much poorer without it. Nevertheless, if you were to follow some raucous screams through the dark Tasmanian night and come upon half a dozen of these stout, black marsupials gorging on the carcass of a cow with their bone-crunching teeth, you might still think they were devils indeed.

33. Which of the following statements about the Tasmanian Devil is true according to the passage?
(A) The Tasmanian Devil is a voracious, hurricane – like, innocent savage.
(B) The Tasmanian Devil is both a nocturnal as well as a scavenging animal.
(C) It is difficult to imagine how much the name and the image of Tasmanian Devil has got maligned.
(D) Tasmanian Devils are the size of fox terriers.

34. Through the passage, the author mainly tries to
(A) reveal the fascinating aspects of a book on the Tasmanian Devils.
(B) discuss the reasons behind the extinction of a species of animal.
(C) disclose the tyranny of prejudice against Tasmanian Devils.
(D) give a sympathetic report that demystifies the Tasmanian Devil.

35. Which one of the following is an inference from the passage?
(A) Tasmanian Devils are found only in Tasmania.
(B) The reports on other related animals in the book by Owen and Pemberton are credible.
(C) The spreading of facial tumour disease can be curbed since Tasmanian devils are solitary nocturnal predators.
(D) Errol, son of Theodore Flynn, dubbed for the character Taz, of the Looney Tunes Cartoon.

	Passage 1	Passage 2	Passage 3	Passage 4	Passage 5
No. of words	926	834	526	1050	581
No. of Qs.	8	6	8	10	3

EXERCISE – 6
(Recommended Time : 60 Minutes)

Directions for questions 1 to 35: Read the given passages carefully and choose the best answer for the questions that follow each passage.

PASSAGE – I

The electric light turns night into day around the globe. In the first world atlas of artificial night-sky brightness, released in 2001 by the Italian astronomer Pierantonio Cinzano and based on high-resolution satellite data, the heavily developed urban corridors of Japan, Western Europe, and the United States blaze like amusement parks. We flood the heavens with so much artificial light that nearly two-thirds of the world's people can no longer see the Milky Way. Moreover, as the stars fade from view, a growing body of research suggests that excessive exposure to artificial night light can alter basic biological rhythms in animals, change predator prey relationships, and even trigger deadly hormonal imbalances in humans. Many creatures are genetically programmed to navigate by the dim glow of the stars and the moon, and artificial light is a source of confusion for them. Entomologist Rod Crawford, of the Burke Museum at the University of Washington, believes that light pollution may be the leading cause, after habitat loss, of the decline of the spectacular giant silk moths that were once a source of summer visual delight.

Kenneth Frank, a Philadelphia physician and lepidopterist, says that light-lured moths often miss their brief opportunities to mate, or succumb to light-stalking predators. Bright lights also disrupt migration routes, confining some moth populations to isolated islands of darkness. But Frank concedes that the plight of moths is unlikely to rouse public outcry. Marianne Moore, a limnologist at Wellesley College studies the life cycles of zooplankton – minute crustaceans and rotifers that rise toward the surface of nearby lakes at night to feed on algae and then descend by day to escape predators. Her research suggests that the sky glow reflected from streetlights prompts the tiny organisms to remain well below the surface. This deprives the zooplankton of nutrients and allows runaway algae to grow, which in turn suffocates other aquatic plant life. At the same time, artificial light appears to wreak havoc on the mating habits of the little lake creatures. "Lunar cues are very important for reproduction," Moore says, and sky glow simulates those cues. Many people might consider such subtle changes in the environment a small price to pay for brightly lit communities. But new medical data suggest humans are not immune to light pollution. In 2001, the Journal of the National Cancer Institute published two studies that the editors argued revealed "an association between exposure to light at night and breast cancer risk", with "alarming" implications.

Other studies have shown that light striking the retina, even during sleep, can reduce production of melatonin, a hormone that helps regulate circadian rhythms. Melatonin also has antioxidant properties, and for some mammals it has been shown to suppress the estrogen estradiol, which is associated with breast cancer. "Light is a drug", says Russel J.Reiter, a neuroendocrinologist at the University of Texas Health Science Centre who has researched the disease-preventing properties of melatonin. "By abusing it, we compromise our health." Not all lights have equal optical and biological effects, even if they shine with equal brightness. Fluorescent bulbs, as well as the metal-halide and high-pressure mercury bulbs often used in stadium lighting, emit a lot of imperceptible ultraviolet light, which is useless for illumination but plays havoc with the detectors used by astronomical observatories. Traditional incandescent bulbs emit a lot of infrared light, which makes them hot and grossly inefficient. All these, as well as the increasingly popular high-pressure sodium bulbs used in street lamps, radiate across a fairly wide spectrum. This makes their light seem more natural and also makes it visible and attractive to moths, birds, and other animals. By contrast, the efficient low-pressure sodium bulbs now used in some street lamps emit only a narrow range of yellow light. This minimizes ecological disruptions, since creatures don't perceive low-pressure sodium as natural light. Moths, for example, don't seem to notice it at all.

One problem with illuminating streets with soft yellow light is that it butts up against a cherished assumption that intense, bright light naturally means more visibility and more safety. Elizabeth Alvarez, the International Dark-Sky Association's associate director, counters with photos of bright streetlights casting deep shadows where bad guys could lurk. "Glare does not help visibility!" she says. "Too much light is blinding." Alvarez and other dark-sky advocates contend that communities could take a number of other practical steps to reduce the amount of light pollution. They suggest pointing light where it's needed, rather than in the eyes of passersby and at neighbours' windows, by shielding fixtures and replacing rounded lenses that scatter beams to the side with flat-bottomed lights that don't. They also suggest lowering most bulb wattages and eliminating unnecessary lights placed by engineers who never plant one light post when two will do.

1. The effect(s) of artificial light on human beings is/are that it can
(A) spark off hormonal imbalances.
(B) cause breast cancer.
(C) disturb human body's biological clock.
(D) All the above

2. According to a study, the decline in the number of giant silk moths is mainly due to
(A) the displacement of the moth's habitat because of ecological reasons.
(B) the artificial light pollution.
(C) their genetic predisposition to travel in sky glow.
(D) Both (A) and (B).

3. Select the statement which is untrue, regarding the types of bulbs:
(A) Fluorescent bulbs emit a lot of invisible ultraviolet light.
(B) The typical incandescent bulbs are also found to produce a wide spectrum of light.
(C) Animals perceive light emitted from low pressure sodium lamps to be natural light.
(D) Light emitted from low pressure sodium lamps causes comparatively lower ecological disturbances.

4. According to Elizabeth Alvarez, bright light
(A) means more visibility.
(B) may not help in controlling illegal activities.
(C) makes things noticeable.
(D) leads to loss of eye-sight.

5. Choose the option which is correctly matched.

a.	Rod Crawford	1. Neuro endocrinologist.
b.	Marianne Moore	2. Entomologist
c.	Russel J.Reiter	3. Physician and Lepidopterist
d.	Kenneth Frank	4. Limnologist

(A)

a.	2
b.	4
c.	1
d.	3

(B)

a.	3
b.	2
c.	4
d.	1

(C)

a.	1
b.	2
c.	3
d.	4

(D)

a.	4
b.	3
c.	2
d.	1

6. According to Marianne Moore's research concerning aquatic animals, which of the statement (s) is/are true?
(a) Sky glow influences them to remain deep below the water surface.
(b) The proliferation of algae may smother other water plants.
(c) Zooplankton may be deprived of its nourishment because of the effect of artificial light.
(A) Only a (B) a and b
(C) b and c (D) a, b and c

7. The measure(s) suggested, in the passage, to reduce the amount of light pollution is/are
(A) to use appendages that reduce scattering of light.
(B) to use flat-bottomed lights.
(C) to reduce the wattage of the bulbs.
(D) All the above

8. According to Kenneth Frank, in moths, bright light affects
(A) reproduction. (B) longevity.
(C) migration. (D) All the above.

PASSAGE – II

A two-metre cannabis leaf painted on the front door proudly advertises the wares of the San Francisco Cannabis Cultivators Club. Inside the five storey glass and concrete emporium on busy Market street, origami cranes and legalised pot posters provide the decor, while live flamenco dancers on a third floor stage supply the entertainment. At either of the two bars, customers - all of whom are at least nominally required to show they have come on doctor's orders - can choose from among 10 grades of marijuana leaf along with capsules, tinctures and half of a dozen varieties of pot laced baked goods. A lavender haze of smoke fills the air.

"Want to get high?", a smiling volunteer staff member asked a recent visitor. This turned-on scene may not be what Californians envisioned when they voted to enact Proposition 215 legalizing the using of marijuana for medical purposes. The beneficiaries were supposed to be AIDS sufferers, people in chronic pain, cancer patients going through chemotherapy and others in medical need. But the law does not specify the medical conditions for which pot is permissible and it requires only a doctor's oral or written permission, not a formal prescription to get the drug.

Many of the 20 or so pot clubs that have sprung up around the state in response to the law – places where people in need can get a steady supply of the drug - are strictly monitoring their customers. The Santa Clara County Medical Cannabis Centre dispenses a half-kilo of marijuana a week from its discreet white walled suite in a business complex. When one would-be customer proffered a doctor's recommendation that he had allegedly forged, cofounder Peter Baez called the police and later went to court to help press charges.

But other clubs seem closer to head shops than hospitals. Dennis Peron, a pro-pot proselytizer who helped draft Prop 215 and runs the San Francisco Cannabis Cultivators Club, admits he sells pot for everything from premenstrual syndrome to the blues. "All use of marijuana is medical" says Peron. "It makes you smarter. It touches the right brain and allows you to slow down. We're living in a very stressful world. It can and should be used for anxiety and depression."

Law enforcement agencies are in a quandary over what to do about clubs like Peron's. A few cities, such as Concord and Palo Alto, have instituted moratoriums on pot clubs. California attorney general Dan Lungren, a law and order Republican is pursuing civil and criminal litigations against Peron's club; he says undercover cops have bought marijuana there without a doctor's recommendation and that videotapes have shown minors on the premises.

Federal officials are in an especially delicate position. Marijuana use, even for medical purposes, is outlawed by the U.S. government and Attorney General Janet Reno has vowed to continue enforcing that law. But federal officials have been reluctant to crack down on the pot clubs that were created in response to the will of California voters. Agents of the U.S.Drug Enforcement Administration raided a Bay Area cannabis club called Flower Therapy and seized 331 marijuana plants and growing equipment charging that the club was distributing pot in quantities larger than what was needed by its ill customers. But the raid was denounced by San Francisco Mayor Willie Brown and other city officials, and the U.S.Attorney Mike Yamaguchi declined to file criminal charges. "It's maddening", seethes a federal agent who works just four blocks away from Peron's Cannabis Cultivators Club. "You can see hundreds of people an hour coming out of that place. We think some of these clubs are distributing marijuana to basically anybody who walks through the door".

9. 'All use of marijuana is medical' in the passage probably means
(A) it is always beneficial. (B) everyone needs it.
(C) it helps people, the way any medication does. (D) anyone can trump up an excuse for using it.

10. Pick the odd man out.
(A) Peter Baez (B) Janet Reno
(C) Dan Lungren (D) Dennis Peron

11. Dan Lungren is proceeding with a litigation against Peron because
a. of business rivalry.
b. Peron drafted proposition 215.
c. Peron's club sells marijuana freely.
d. even minors are found in Peron's club.

(A) c and d are true.
(B) a and b are true.
(C) b and c are true.
(D) a and d are true.

12. A shortcoming of Proposition 215 was
(A) it legalised the use of pot.
(B) it did not specify the medical conditions for the use of marijuana.
(C) it legitimized the use of marijuana for medical purposes.
(D) it advocated decontrolling all drugs.

13. Which of the following is a Cannabis club.
(A) Reno's (B) Peron's
(C) Palo Alto (D) Bay Area

14. The dilemma of the Federal officials arises from the fact(s) that
a. marijuana use is banned by the U.S. government.
b. people of California ratified the establishment of pot clubs.
c. they cannot raid the clubs.
d. a lot of people use marijuana.

(A) Only a (B) a and b
(C) a, b and c (D) All the above

15. The Santa Clara County Medical Cannabis Centre differs from San Francisco Cannabis Cultivator's Club in that it
(A) sells marijuana.
(B) does not sell marijuana.
(C) sells marijuana only in case of genuine medical need.
(D) does not sell marijuana to minors directly.

PASSAGE – III

Most historians are in agreement that if a count were taken of the twelve greatest men who ever lived in any country in any age, Adi Sankaracharya would be one of them. I would call him the Universal Man. He deserves to be called the Universal Man in more senses than one.

What was his aim in having mutts in different corners of India? One of his main ideas was that this is one single country. We may have different faiths, different sects, different creeds. Different communities may flourish here, and they have flourished through the centuries, but we are all members of one single family. And his objective in going round the country was to ensure that the message that we have a common and indivisible destiny and a unified culture got across this great nation. Adi Sankara was universal in his outlook. Swami Vivekananda and Sri Aurobindo must have been thinking of him when both of them said that the destiny of India is to be the spiritual leader and moral teacher of the world. Adi Sankaracharya did all his phenomenal work in the short span of thirty-two years; bearing out, as Bacon said, that a man may be young in years but old in hours if he has lost no time; and Sankaracharya never lost any time. Every moment of his life was filled with thought and action. And the great mutts which he founded 1,200 years ago, are still continuing, still imparting the type of guidance which this country so badly needs today.

It is amazing how close Sankaracharya's teachings are to the latest conclusions reached by scientists. The human spirit can, merely by means of meditation and introspection, come to the right conclusion about the ultimate reality, which hundreds of years of scientific research might finally lead to. The main message of modern scientists like Sir James Jeans, Sir Arthur Eddington, Albert Einstein and Max Planck is that although the universe exists, the appearance is different from the reality. The reality, the only reality, is the spirit, the infinite spirit. Dr. C.P.Ramaswamy Aiyar believed that the essence of the theory of relativity propounded in the twentieth century was known to ancient India 3,000 years ago.

Adi Sankaracharya not only synthesized the different philosophies and ideals, but he purified them. As any creed or religion or language goes down the centuries, it gathers a crust of useless, immaterial accretions, and those trappings are mistaken for the essence of religion. He broke that crust and went to the essence of all those religions and showed how they could all be synthesized, how they could all be made to fall into one pattern. That gives his philosophy a certain completeness, a certain wholeness. You don't need to supplement Sankaracharya. As for his hymns, they are amazingly beautiful. He composed them in Sanskrit, one of the greatest languages that the human mind has ever evolved. They embody his profound vision.

It has been said in the Bhagvad Gita by the Lord, "When things get very bad, I reappear to re-establish dharma." It seems that we have sunk to such a depth now that day is at hand. To Sankaracharya, philosophy was not an intellectual exercise – it was the fruit of the dedication of a life. (Sankaracharya looked upon every human life as the embodiment of the Ultimate Reality). And he said that human life which is vouchsafed to us is available for transmuting ourselves into an instrument of the Divine Will.

The four essences of his philosophy, as summarized by both eastern and western thinkers, are the following : First, he says that you must discriminate between what is eternal and what is ephemeral. The One remains, the many change and pass; so do not get attached to what changes and passes, but get attached to the eternal, because that alone is the Ultimate Reality. He was not against family life. He was sensible enough to realize that if there was no family life, the human race would come to an end. But his message was, "Realize that everything around you, including your wealth and your family, are all ephemeral things." Too much attachment would result in diverting your mind from what is timeless to what is evanescent.

His second message was that each one of us has to learn to renounce the thought of reward for what we are doing. Your attitude must be that you are not interested in the reward for what you are doing. I doubt whether Sankaracharya in his own lifetime got full recognition for what he did. But he knew that ages and ages hence, people would realize the importance of his message. Men do not recompense their greatest benefactors. Christ was crucified by the majority vote of the people around him. Socrates was put to death by his own fellowmen. That again was by a majority vote. So much for democracy. Never mistake the majority vote for a vote in favour of reason or for a vote in favour of what is right. What is right is often quite different from what the majority believes in.

The third message of Sankaracharya was moral preparation. He believed that each life has to be so lived that you are prepared to meet the Maker at the time of "crossing the bar," and to present a clean record, when the final call comes, of what you have accomplished with whatever you have been endowed with. So, you hold your talent, as much as your wealth, in trust for your fellowmen. He believed that universal compassion and universal love are essential ingredients of the moral preparation. I would like to quote a few words which are from one of his hymns. "In you and in me and everywhere else, there is but one Vishnu." See yourself in all things, give up the false sense of difference from other human beings everywhere. This is his message of universality; the brotherhood of the entire human race. And his last message was the longing for liberation, what St. Luke in his Epistle calls the "longing for the Eternal Life". Adi Sankaracharya said that this world is just a preparatory ground, a school where we are trying to prepare ourselves, educate ourselves, for the life everlasting.

About his year of birth and death, there is no certainty. But whatever might have been the exact year of his birth or death, it is his message which counts, more than his own personal life. He established what I would call the Empire of the Spirit. Whole generations have come and gone, empires have flourished and vanished, but Sankaracharya's Empire of the Spirit survives. And so long as his great Spirit abides with our people, there is hope for the future greatness of our country.

16. The surprising thing(s) about Sankaracharya's teachings is/are
   a. its closeness to the conclusions reached by modern scientists.
   b. the removal of the external trappings surrounding the essence of any religion.
   c. that it was expounded in a short span of thirty two years.
   d. it being the fruit of the dedication of a life.

   (A) a and b (B) c and d
   (C) Only a (D) b and d

17. As per the passage, Sankaracharya's hymns
   (A) expound dharma.
   (B) embody his profound vision.
   (C) are an intellectual exercise.
   (D) have made Sanskrit the greatest language.

18. "The majority vote is often not right." As a proof of it, the author gives the example of
   (A) the deaths of Christ and Socrates.
   (B) St. Luke.
   (C) democracy, where peoples' verdict can go wrong too.
   (D) the world being just a preparatory ground.

19. Which of Sankaracharya's teachings may be interpreted as supporting the universal brotherhood of man?
   a. There is but one god in each of us.
   b. Every human life is an embodiment of the Ultimate Reality.
   c. The importance of family in every man's life.
   d. Moral preparation requires universal love.

   (A) a and b (B) b and c
   (C) c and d (D) a and d

20. The author feels that our country can continue to flourish spiritually as long as
   (A) the teachings of Sankaracharya are propagated.
   (B) the world abides by Sankaracharya's principles.
   (C) the Empire of the Spirit is nurtured.
   (D) our people undertake these activities that will help them "cross the bar" with conviction.

21. According to the author, Sankaracharya did not get adequate recognition during his lifetime. This exemplifies the essence of which of Sankaracharya's teachings of life:
   (A) Do not be excessively attached to material things.
   (B) Do not expect reward for your action.
   (C) Differentiate the evanescent and the timeless.
   (D) People do not compensate their benefactors.

22. The establishment of the mutts was to
   (A) bring uniformity among the people.
   (B) blend all religions into one.
   (C) focus on the unity of the people of our country.
   (D) mould the destiny of the country.

23. As per the passage, we hold our talent in trust because
   (A) talents are like wealth.
   (B) we will be called upon to account for what we have accomplished with them.
   (C) we must be prepared to meet the Maker.
   (D) universal compassion is essential.

24. Pick out the true statements:
   a. India is destined to be the spiritual leader of the world, according to Sankaracharya.
   b. The conclusions arrived at by scientific research can be made intuitively, only by a seer.
   c. Science has proved that the reality of the universe is different from its appearance.
   d. Human life is only an instrument of the Divine will.
   e. Too much attachment to material things diverts the mind from the Ultimate Reality.

   (A) a, b and c (B) Only c and d
   (C) a, c and e (D) Only d and e only

25. Which of the following options summarizes para 3 of the passage most appropriately?
   (A) It is a widely held belief that the theory of relativity propounded in the twentieth century was known to ancient India 3000 years ago and Shankaracharya's teachings about the ultimate reality is close to the conclusions which modern scientists arrived at after hundreds of years of research.

(B) Shankaracharya's teachings about the ultimate reality is close to the conclusions which the modern scientists arrived at after years of scientific research and it is believed that the theory of relativity propounded in the twentieth century was known to ancient India 3000 years ago.

(C) It is amazing how close Shankaracharya's teachings about the ultimate reality is, to the conclusion which modern scientists reached after years of scientific research. C. P. Ramaswamy Aiyar believed that the presence of the theory of relativity propounded in the twentieth century was known to ancient India 300 years ago.

(D) It is amazing how close Shakaracharya's teachings are to the latest conclusion about the ultimate reality, which modern scientists like Sir James Jeans, Sir Arthur Eddington, Albert Einstein and Max Plank reached after hundreds of years of scientific research. C.P.Ramaswamy Aiyar believed that the essence of the theory of relativity propounded in the 20th century was known to Indians 3000 years ago.

PASSAGE – IV

The huddled masses have a new destination. As a proportion of its population, and in absolute numbers, London now has a higher inflow of foreigners than do either New York or Los Angeles. More are coming, and staying, than ever before. According to many voices in the papers, politics and pressure groups, this must be a time-bomb. For 20 years, until the early 1990s, net immigration to Britain hovered around the zero mark, plus or minus 50,000. Then numbers started rising. The end of the cold war led to civil conflicts that drove people out of their homelands. Growing prosperity gave more and more people access to air travel. The trains through the Channel Tunnel, which started running in 1993, offered them another route in Britain.

And there were good reasons to come to Britain. Its economy has done better, over the past ten years, than those of the other big European countries. London was the magnet. Big Bang – the liberalisation of the financial services industry in the late 1980s – led to a decade-long boom in the city. That mean jobs not just for American and French bankers, but also for Colombian and Somali cleaners. London, where the police never check your identity papers, is a great place for a foreigner, legal or illegal. Anybody can find a comforting bunch of people of their own nationality somewhere in the city. Anybody can turn up one evening and find a job, of some sort, the next morning. Anybody can disappear too.

Getting in became easier, too. The government has encouraged immigration by issuing more work permits, especially in areas where skills are in short supply – nurses, doctors, IT professionals, for instance. In the mid-1990s, around 30,000 work permits a year were being issued. In 2002, 137,500 were. More people have been given asylum; and, as the system got bogged down, more people have waited longer while their applications were processed. So, by 2001, net migration to Britain as a whole had risen to 172,000 with 120,000 of them bound for London and the south-east. And they're only the legal ones.

What has this done for Britain? Changed London dramatically, for a start. When did you last have a British waiter? Whatever happened to the famous British nanny? When did you last go to a City reception and not hear a mix of accents? Can you imagine the blandness of the place without them? At a macro–economic level, the foreigners have inevitably boosted growth, in the not-very-interesting sense that more people means a bigger economy; but it has also, probably, made the economy work better. Giving foreigners access to the labour market has the same sort of effect as opening an economy to trade: more competition means greater efficiency. Even so, many argue that Britain is paying too high a price for a cosmopolitan buzz and a smother-working labour market. They fear two consequences in particular: population pressures in the south-east of England and ethnic tensions.

An extra 120,000 people a year in a region as densely-populated as the south-east is, the argument goes, too much. It means more congestion, more concrete and less beauty. Locals don't want more house building. The government can impose it on councils only by giving itself powers to override the objections of local councils and decreeing that hundreds of thousands of new homes should be built.

But there's no need for this. Over the past decade, London and the south-east have absorbed a net 680,000 foreigners, without losing much countryside. How has that happened? Partly through development of old industrial areas – such as Docklands – in a place which remains thinly populated compared with the world's other great cities. But it is also partly because, as immigration has fuelled demand and London house prices have risen faster than those in the rest of the country, Londoners have cashed in, sold their houses and moved to cheaper, emptier bits of Britain.

But what of ethnic tensions – an unvoiced fear behind much of the unfavourable comment? Is a bit of economic efficiency worth many summers of race riots? Probably not; but, in Britain at least, there's not much connection between race and civil disorder. Certainly, the spotlight fell on Oldham and Bradford, which have big Asian populations, when they went up in flames a few years ago. But Britons are quite capable of organising such entertainment without help from immigrants, as they showed in Blackbird Leys in Oxford in 1991 and Portsmouth in 2000. What's more, London, with its dense ethnic mix, has not seen a good riot for two decades; and the disturbances in Brixton in the early 1980s were a reaction to heavy-handed policing, not a race riot. But the best thing for Britons to do about immigration would be to embrace it. It is nice to be wanted. And, economics aside, foreigners make the place infinitely more fun.

26. The changes brought about in London by immigrants, according to the passage, are

a. a variety of accents.
b. ethnic tension.
c. greater efficiency.
d. a more interesting society.

(A) a and b (B) b and c (C) a, c and d (D) All the above

27. The external factor(s) that led to increased immigration to Britain after the 90s was/were
(A) civil conflicts in other countries.
(B) the trains through the channel Tunnel.
(C) increasing wealth that brought air travel within the reach of many people.
(D) All the above

28. London and the south-east have not lost their greenery despite an increase in population because of
(A) the development of thinly populated old industrial areas.
(B) some Londoners moving out.
(C) Both (A) and (B)
(D) Neither (A) nor (B)

29. The author appears to be
(A) in favour of immigration.
(B) against immigration.
(C) neutral.
(D) carefully weighing the pros and cons of immigration on the British economy.

30. Regarding ethnic riots, the author feels that
(A) economic efficiency is being achieved at the cost of racial riots.
(B) the immigrant community need not be considered as the reason behind them.
(C) it is the only reason for Britishers opposing immigration.
(D) all the above hold good.

31. We can infer from the passage that
a. prior to the 1990s, immigration to London was negligible.
b. more work permits were issued because of the shortage of skilled labour.
c. the south-east of England is densely populated.
d. London is hostile to immigrants.

(A) a, b and c (B) b, c and d
(C) c, d and a (D) d, a and b

32. Which among the following is not one of the factors which attracted foreigners to Britain?
(A) Better economic environment.
(B) The boom in the industrial sector of the country.
(C) The generally peaceful and strife-free atmosphere.
(D) Less stringent immigration laws.

PASSAGE – V

Although the light of almost four centuries has been focused on "*The Prince*," its problems are still debatable and interesting, because they are the eternal problems between the ruled and their rulers. Such as they are, its ethics are those of Machiavelli's contemporaries; yet they cannot be said to be out of date so long as the governments of Europe rely on material rather than on moral forces.

"*The Prince*" is bestrewn with truths that can be proved at every turn. Men are still the dupes of their simplicity and greed. The cloak of religion still conceals the vices which Machiavelli laid bare in the character of the rulers of his time. Men will not look at things as they really are, but as they wish them to be--and are ruined. In politics there are no perfectly safe courses; prudence consists in choosing the least dangerous ones. Then - to pass to a higher plane - Machiavelli reiterates that, although crimes may win an empire, they do not win glory. Necessary wars are just wars, and the arms of a nation are hallowed when it has no other recourse but to fight.

It is the cry of a far later day than Machiavelli's that government should be elevated into a living moral force, capable of inspiring the people with a just recognition of the fundamental principles of society; to this "high argument" "*The Prince*" contributes but little. Machiavelli always refused to write either of men or of governments otherwise than as he found them, and he writes with such skill and insight that his work is of abiding value. But what invests "*The Prince*" with more than a merely artistic or historical interest is the incontrovertible truth that it deals with the great principles which still guide nations and rulers in their relationship with each other and their neighbours.

33. According to the passage:
(A) '*The Prince*' has very few assertions that can be validated.
(B) *'The Prince*' strongly supports the belief that government should be carried out on moral principles.
(C) '*The Prince*' details the attributes of ideal rulers.
(D) '*The Prince*' was written about 400 years ago.

34. The problems spoken of in '*The Prince*'
(A) are those of temporary nature.
(B) are no longer relevant.
(C) are those that arise between a government and its citizens.
(D) are not those that can be discussed in the context of the present day.

35. According to the author, Machiavelli believes all of the following to be true, EXCEPT:
(A) crimes sometimes bring about honourable results.
(B) crimes may help establish dominion.
(C) war is justified when circumstances require it.
(D) war is justified when a nation has no other way of securing its interests.

	Passage 1	Passage 2	Passage 3	Passage 4	Passage 5
No. of words	791	611	1132	813	310
No. of Qs.	8	7	10	7	3

EXERCISE – 7

(Recommended Time : 60 Minutes)

Directions for questions 1 to 35: Read the given passages carefully and answer the questions that follow each passage.

PASSAGE – I

There is a basic discipline that makes teams work. Teams and good performance are inseparable; you cannot have one without the other. But people use the word team so loosely that it gets in the way of learning and applying the discipline that leads to good performance. For managers to make better decisions about whether, when, or how to encourage and use teams, it is important to be more precise about what a team is and what it isn't.

Teamwork represents a set of values that encourage listening and responding constructively to views expressed by others, giving others the benefit of the doubt, providing support, and recognizing the interests and achievements of others. Such values help teams perform, and they also promote individual performance as well as the performance of an entire organization. But teamwork values by themselves are not exclusive to teams, nor are they enough to ensure team performance.

Nor is a team just any group working together. Committees, councils, and task forces are not necessarily teams. Groups do not become teams simply because that is what someone calls them. The entire work force of any large and complex organization is never a team, but think about how often that platitude is offered up.

To understand how teams deliver extra performance, we must distinguish between teams and other forms of working groups. That distinction turns on performance results. A working group's performance is a function of what its members do as individuals. A team's performance includes both individual results and what we call "collective work-products". A collective work-product is what two or more members must work on together, such as interviews, surveys, or experiments. Whatever it is, a collective work-product reflects the joint, real contribution of team members.

Working groups are both prevalent and effective in large organizations where individual accountability is most important. The best working groups come together to share information, perspectives, and insights, to make decisions that help each person do his or her job better; and to reinforce individual performance standards. But the focus is always on individual goals and accountabilities. Working-group members don't take responsibility for results other than their own. Nor do they try to develop incremental performance contributions requiring the combined work of two or more members.

Teams differ fundamentally from working groups because they require both individual and mutual accountability. Teams rely on more than group's discussion, debate, and decision; on more than sharing information and best practice performance standards. Teams produce discrete work-products through the joint contributions of their members. This is what makes possible performance levels greater than the sum of all the individual bests of team members. Simply stated, a team is more than the sum of its parts. The first step in developing a disciplined approach to team management is to think about teams as discrete units of performance and not just as positive sets of values.

The essence of a team is common commitment. Without it, groups perform as individuals; with it, they become a powerful unit of collective performance. This kind of commitment requires a purpose in which team members can believe. Whether the purpose is to "transform the contributions of suppliers into the satisfaction of customers", to "make our company one we can be proud of again", or to "prove that all children can learn", credible team purposes have an element related to winning, being first, revolutionizing, or being on the cutting edge.

Teams develop directions, momentum, and commitment by working to shape a meaningful purpose. Building ownership and commitment to team purpose, however, is not incompatible with taking initial direction from outside the team. The often asserted assumption that a team cannot "own" its purpose unless management leaves it alone actually confuses more potential teams than it helps. In fact, it is the exceptional case – for example, entrepreneurial situation – when a team creates a purpose entirely on its own.

Most successful teams shape their purposes in response to demand or opportunity put in their path, usually by higher management. This helps teams get started by broadly framing the company's performance expectation. Management is responsible for clarifying the charter, rationale, and performance challenge for the team, but management must also leave enough flexibility for the team to develop commitment around its own spin on that purpose, set of specific goals, timing, and approach.

The best teams invest a tremendous amount of time and effort exploring, shaping and agreeing on a purpose that belongs to them both collectively and individually. This "purposing" activity continues throughout the life of the team. In contrast, failed teams rarely develop a common purpose. For whatever reason – an insufficient focus on performance, lack of effort, poor leadership – they do not coalesce around a challenging aspiration.

1. According to the author,
- (A) team and good performance are two different things.
- (B) discipline makes the difference between a team that performs and one that does not.
- (C) team values always help raise the level of performance of a group.
- (D) None of the above

2. The author is of the opinion that no group becomes a team unless there is
- (A) mutual accountability.
- (B) mutual commitment.
- (C) mutual goals.
- (D) All of the above.

3. Team values include all the following factors except
(A) supporting.
(B) encouraging.
(C) delegating.
(D) recognizing each person's contribution.

4. The above passage is most likely taken from
(A) a book on team building.
(B) a newspaper article on group dynamics.
(C) an article from a management journal.
(D) None of the above.

5. We can infer from the passage that synergy is a characteristic of
(A) work groups.
(B) high performing teams.
(C) committees.
(D) All the above.

6. A working group's performance, is a function of
(A) individual goals and accountability.
(B) mutual goals.
(C) mutual accountability.
(D) All the above.

7. According to the passage, a team differs from a working group in terms of
(A) leadership. (B) accountability.
(C) work products. (D) All the above

8. It can be inferred that in the paragraph immediately preceding this passage, the author must have discussed
(A) a survey on team effectiveness and performances.
(B) a working definition of teamwork.
(C) factors that distinguish teams from work group.
(D) All the above

9. Which of the following is false according to the passage?
I. Teams encourage open-ended discussion and active problem solving meetings.
II. Teams discuss, decide and delegate.
III. Teams have shared leadership roles.

(A) Only I
(B) Only II
(C) Only I and II
(D) All the statements

10. The author's tone in the passage can be best described as
(A) analytical.
(B) opinionated.
(C) dogmatic.
(D) None of these

11. The word 'platitude' (in para 3) is used in the passage to mean
(A) an expressionless statement.
(B) a meaningless statement.
(C) a valueless statement.
(D) a contradictory statement.

12. The author is of the view that
(A) the values that help a team perform are unique to that team.
(B) both, teams and working groups, work towards combined goals.
(C) when a team is given total freedom it is most effective in identifying its goals and charting its course.
(D) in the case of teams, the lack of success is often related to the absence of clear and consensual objective.

PASSAGE – II

The invention of the means of being comfortable and the pursuit of comfort as a desirable end – one of the most desirable ends that human beings can propose to themselves – are modern phenomena, unparalleled in history since the time of the Romans. The padded-chain, the well spring bed, the sofa, central heating, and the regular hot bath – these and a host of other comforts enter into the daily lives of even the most moderately prosperous of the Anglo-Saxon bourgeoisie. Three hundred years ago, these were unknown to the greatest king.

The first thing that strikes one about the discomfort in which our ancestors lived is that it was mainly voluntary. Some of the apparatus of modern comfort is of purely modern invention; people could not put rubber tyres on their carriage before the discovery of rubber plant. But for the most part, there is nothing new about the material basis of our comfort. Men could have installed bathrooms and central heating and sanitary plumbing any time during the last three or four thousand years. And as a matter of fact, at certain periods, they did indulge themselves in the comforts. Two thousand years before Christ, the inhabitants of Cnossos were familiar with sanitary plumbing. The Romans had invented an elaborate system of hot air heating, and the bathing facilities in a smart Roman villa were luxurious and completely beyond the dreams of modern man. As for the public baths, they were almost inconceivably luxurious. A single room of the baths of the Emperor Diocletian has been transformed into a large church.

It would be possible to adduce many other examples showing what could be done with the limited means at our ancestor's disposal in the way of making life comfortable. They show sufficiently early that, if the men of Middle Ages and early modern epoch lived in dirt and discomfort, it was not for any lack or ability to change their mode of life, it was because they chose to live in this way, because filth and discomfort fitted in with their principles and prejudices - political, moral, religious. What have comfort and cleanliness to do with politics, morals and religions? Let us begin with the consideration of armchair and heating.

Armchairs and central heating became possible only with the breakdown of the power of kings, and great lords and the decay of social classes and the old family system. Sofas and modern armchairs exist for relaxation; indeed you can only loll or sit at ease in them. Now this is not dignified or respectful. When we wish to appear impressive or rebuke an inferior we do not lie in a deep chair; we sit up and try to look majestical. Similarly, when we rush to be polite to a lady or show respect to the eminent, we cease to loll; we stand or sit up straight. In the past, human society was a hierarchy of ranks in which every man was always engaged in being impressive towards his inferiors or respectful to those above him. Relaxing in armchair in such societies was utterly impossible. Old furniture reflects the physical habits of the class or society for which it was made.

Another essential component of modern comfort – the proper heating of houses – was made impossible for the great ones of the earth by the political structure of ancient societies. The great had to live in great palaces, with large and lofty halls in which they dined in state or received their guests. Splendid, but cold and drafty. Today, the self-made great men have not to keep up their positions in the splendid style of those who were born great, sacrificing grandeur to comfort, they live in rooms small enough to be heated. The third great comfort of modern age, the bath, is due, partly to the weakening of the tradition of religious asceticism which did not set much store by cleanliness. But it is principally to the doctors that bath-lovers owe their greatest debt. The discovery of infection through germs has put a premium on cleanliness. We wash now with religious favour, like the Hindus. Our baths have become something like magic rites to protect us from the powers of evil, embodied in the dirt-loving germ. Since the discovery of the beneficial effects of sunlight, too much clothing has become, medically speaking, a sin. And now comfort has not only become a physical habit but a fashion. But one can never have something for nothing, and the achievement of comfort has been accompanied by a loss of other equally perhaps more valuable things. A man of means who builds a house today is in general concerned primarily with the comfort of his future residence. His counterpart in an earlier age would have been primilarly concerned with the impressiveness and magnificence of his dwelling – with beauty, in the word, rather than comfort. Is our present passion for comfort a little exaggerated? Should not comfort be rightly regarded as a means to an end, as intended to create conditions which are favourable to the life of the mankind?

13. What, according to the passage, was the condition of human society in the past?
(A) Only the aristocrats and bureaucrats had access to methods of making life comfortable.
(B) Using armchairs, central heating systems, sanitary plumbing etc., was not considered respectable.
(C) There was a hierarchy in human society where people tried to impress both their inferiors and superiors.
(D) Using old furniture was one of the signs of aristocracy.

14. What does the author comment regarding our passion for comfort today?
(A) We seem to be enamoured with the idea of making our life more and more comfortable.
(B) It is rather concerned with the beauty of things.
(C) Man is motivated by this passion to acquire many valuable things for comfort.
(D) Our passion for comfort fits perfectly with the principles and ethos of the present society.

15. What, according to the passage, is the reason why people in the Middle Ages lived in discomfort?
(A) They did not have the means to make their life comfortable.
(B) They were unable to change their mode of life.
(C) They lacked the knowledge to devise new methods to bring comfort into life.
(D) They chose such a way of life as it seemed to fit in with their principles.

16. Identify the statements that are true as per the passage:
(a) Man seems to be trading off certain aspects of life in order to make his life more comfortable.
(b) Most of the modern day inventions of comfort would have been possible if only our ancestors wished to lead an abstemious life.
(c) Widespread prevalence of sofas and armchairs indicate an atrophy of stratification of society.
(d) Certain actions like exposing our skin to sunlight, taking bath etc, seem to have sanction from the medical field.

(A) a and b
(B) b, c and d
(C) a, c and d
(D) a, b, c and d

17. Which of the following is true as inferred from the passage?
(A) The sofa, the central heating system etc., were never used by the Romans.
(B) Only kings were used to the comforts of life.
(C) Comforts like sofa, central heating have become popular only in the last 300 years.
(D) The inventions of the means of being comfortable were not desirable to the Romans.

18. Which of the following is true about our ancestors?
(A) The reason for most of their discomfort was that adequate resources may not have been available to them.
(B) Though they were familiar with the various ways of being comfortable, they chose not to make living conditions better.
(C) Central heating system and sanitary plumbing were considered uncomfortable by a particular section of people.
(D) None of them had the enthusiasm to discover resources to deal with their discomfort.

PASSAGE – III

Today we hear those words so often that we cannot believe there was a time when they were the battle-cry of a new challenging idea which shook civilization to its foundations, which ended one period and initiated another. Nor do we pay our debt of gratitude to Jean Jacques Rousseau, who far more than any other man was the founder of the idea. There were others who were beginning to think as he did; indeed, the suggestion was "in the air" during the second half of the eighteenth century, and especially in the air of France. But Rousseau gave it shape and power.

He made it the keynote of his life and of his books. Out of one of these books, 'Social Contract', the French Revolution was born. Out of another, 'Emile' came the new idea of education which advocates free expression and free discipline. Out of a third came the romantic novel with its passion for Nature. Out of the posthumous confessions came a new kind of autobiography, one which tells the whole truth about oneself, however shameful and unflattering. This Rousseau was a true modern. Like us, he believed in equality, liberty and democracy: but he happened to have believed them when nobody else did. And he acted on his beliefs. People were beginning to feel that way, however, and when he put their vague feelings into words, they heard them as a trumpet call, thrilled and rallied to this brave new standard of revolt.

Rousseau was the son of a watchmaker in Geneva. The only education he had was at the village school. He lived a vagabond life that was sometimes rather ugly and shameful. In 1760, he wrote a novel called 'The New Heloise', which became an immediate success because it was full of his of love of nature and his love of truth. In 1762, he wrote his most famous book, 'The Social Contract'. In it, he analysed the whole question of government, who should control the government, who should benefit by it. His answer was the common man. He said, "it is the common people who make up the human race, what is not the common people is hardly worth considering". That saying was a reversal of all human ideas since the beginning of history. He believed that every man, if he were left unspoiled by wrong education and training, was good. That was a new idea. Always, before, it had been assumed that the laws were to be made by few people at the top and obeyed by the great mass of the common people. Always, before it had been accepted that men had to be taught right and wrong : so the churches through religion and the state through the law arranged what was right and what was wrong, and then enforced obedience. Rousseau saw quite clearly that much which had been taught was based on the privilege and property of the few. He overturned the whole idea. Too violently, no doubt, as we realise now when we read of his belief that you need only to leave everybody to grow up naturally, have as little government and as few laws as possible, for everything to go right. But in his world of universal tyranny and injustice, his revolutionary ideas were thrilling and wonderful. The Social Contract became the Bible of the whole revolutionary movement.

'Emile', his next book, was a study of the kind of education which he believed was needed if the older kind was to be done away with. Rousseau believed in God, but not in priests and their religious system. In 'Emile', he attacked the priests and their system. The book became famous, but the priests saw it as dangerous thinking, and he had to fly from France to escape imprisonment. For six years, he was hounded about Europe. He visited England too. He returned to Paris in 1770; poor, lonely, almost forgotten even by the people who were greatly influenced by his ideas. In 1778, he died, a "common man" till the last.

But his idea of 'Rights of Man' had become forever part of the thought of humankind. Across the seas in America, the democracy of the United States had drawn up the first constitution based on that belief. In his own France, suffering terribly under the old tyrannies of privilege, the new idea of working towards the revolution started. All over Europe, his passion for freedom was stirring men from the sleep of centuries. Like a stone dropped in a pool, the waves of that idea have spread. Today the whole world is overwhelmed by them. The liberalism of the nineteenth century, socialism, communism; these are part of that expanding wave. The most dynamic idea in the world today is the belief which Jean Jacques Rousseau put into his life and his books; the idea of the Rights of Man.

19. With which of the following statements regarding "the common man" would Rousseau agree?
(a) Man is born good but wrong education and wrong training can spoil him.
(b) The concept of self-governance may eliminate any need of laws, rules etc.
(c) Man needs to be given a chance to make a choice about the way he wishes to lead his life.
(d) It is the bourgeoisie that has to follow laws framed by others.
(A) Only a and b (B) Only b and d
(C) a, b and c (D) b, c and d

20. According to the passage, Rousseau moved away from France because
(A) the priests disliked his ideas and favoured his imprisonment.
(B) he advocated free expression and free discipline.
(C) he wanted the people of other countries to appreciate his revolutionary ideas and thereby was granted political asylum.
(D) he believed that churches used religion to make laws that were forced on common man.

21. Which of the following is applicable to the romantic novel written by Rousseau?
(A) It is titled as "The New Heloise".
(B) It came from the ideas prevailing among the people at that time.
(C) It reflects the spirit of the French Revolution.
(D) It was inspired by his passion for nature.

22. Which of the following can substitute the main idea behind the statement, 'like a stone dropped in a pool, the waves of that idea spread"?
(A) Ripple (B) Boomerang
(C) Ricochet (D) Echo

23. What was the condition of notions like liberty and equality in the latter half of the 18th century?
(A) Rousseau had already given them shape and some power.
(B) They were totally unrelated concepts and had no conspicuous bearing on society.
(C) The concepts started gaining popularity at that time, especially in France.
(D) Social philosophers had serious objections to the idea of which these concepts were the focus.

24. The novel that Rousseau wrote in 1760 is
(A) The New Heloise. (B) Democracy.
(C) Emile. (D) Social Contract.

25. Which of the following statements is not true about Social Contract?
(A) It is the most well-known of all Rousseau's works.
(B) It upheld the principles of democracy.
(C) It advocated revolutionary ideas.
(D) It advocated free expression and free discipline.

PASSAGE – IV

Some Western writers and some people in Russia too, argue that the best way to minimize the explosive quality of the present arms race is somehow to develop a stable balance of terror or deterrence. This means developing nuclear weapon and delivery systems so strong and so varied that no surprise attack could knock out the power to retaliate. I can see some force in this argument. Effective deterrence depends to some extent on a mutual conviction that the other man can and will do what he threatens if he is attacked. And it may be that this is, for the time being, the only

practical way of curbing hasty action. But in fact, attempting to produce stability in this way also means continuing the arms race. Because, as the power to retaliate increases, there is bound to be a corresponding search for improved weapons which will increase the element of surprise. In any case, inaction through fear, which is the basis of deterrence, is not a positive way to secure peace – at any rate in the long run. I feel bound to doubt whether safety, as Winston Churchill once claimed, can really become the 'sturdy child of terror'.

It is important to remember that, so far the United Nations has not contemplated the abolition of all armaments. The first article of the charter of the United Nations charges the organisation with the duty of suppressing acts of aggression and other breaches of peace, and Article 51, allows the organisation to use force for this purpose. Indeed, to fight, at the beginning, a military staffs committee was set up at the United Nations headquarters and charged with the strategic direction of whatever military forces were to be made available to the Security Council.

In practice, however, the United Nations Organisation does not have any military force permanently at its disposal or any staff to plan operations in advance and direct them when they become necessary. Whatever operations the Organisation has undertaken, have been conducted on an entirely adhoc and improvised basis. In fact, in 1958, the then Secretary General argued against the creation of permanent United Nations military force. One of the main reasons for his failure to develop a United Nations peace-keeping capacity in terms of military forces has undoubtedly been the opposition of some of the great powers. And it must be admitted that there is no prospect of the United Nations/coercing the great powers into keeping the peace at present. But perhaps we can make a virtue of necessity here.

I have tried to suggest that internal agreements, like any system of municipal law, demand a sanction of force. Its observance is normally to be guaranteed and non-observance controlled before it explodes into general disorder. In other words, legislative decision demands as its corollary some form of executive action. It was surely this which he had in mind in presenting his last annual report as Secretary General. Some people, he said, wanted the United Nations to work simply as a conference system producing reconciliation by discussion. Others and clearly himself among them - looked upon the Organisation primarily as a dynamic instrument of government through which they, jointly and for the same purpose, should seek such reconciliation but through which they should also try to develop forms of executive action undertaken on behalf of all members, aiming at forestalling conflicts and resolving them, once they have arisen, by appropriate diplomatic or political means. The very moment the United Nations had landed in the Congo, and largely through the Secretary's efforts, a military force was expressly designed to re-establish order and to prevent civil force strife from exploding into general war.

It seems to me that any international organisation designed to keep peace must have the power not merely to talk but also to act. Indeed, I see this as the central theme of any progress towards an international community in which war is avoided not by chance but by design. Nor need our present limitations daunt us. This is a slow process in which experience grows into habit, and habit into trust. Many people have already suggested how this development could have a bigger permanent staff to act as observers and intelligence officers in potential trouble spots. Here would be part of the political basis of control. It could develop much more detailed methods in advance for drawing on national armed forces when police action becomes inevitable, even without possessing a big military establishment of its own. It could prepare training manuals for the police action its forces are likely to undertake, and for which ordinary soldiers are not normally trained. And it could begin to hold under its own control small specialist staff, for example, multilingual signallers, and some small stocks of equipment such as transport aircraft, which these operations almost inevitably demand. The fact, that coercion of the great powers is impossible, does not invalidate any of these suggestions. If these powers can, for the time, avoid major war among themselves by nuclear deterrence, then the likeliest explosive situations will occur in areas not of vital interest to them. It is there that the United Nations can experiment and develop.

26. The UNO failed to develop a peace-keeping capacity with a military force because
- (A) it has, till now, been borrowing military force from its member countries when required.
- (B) none of its members have ever violated its laws, and so there was no requirement to apply force.
- (C) the top officials of UNO decided in a conference that they did not require any such force.
- (D) some members of UNO who are quite powerful did not let this happen.

27. Some Western writers and people in Russia argue that
- (A) it is necessary to create some amount of fear in order to limit the possible usage of arms.
- (B) no country should use its power and energy to create and store nuclear weapons.
- (C) when one country attacks another, the latter should invite the former for peaceful talks.
- (D) since many countries have now cut down the number of their weapons, there is no need for nuclear deterrence.

28. Which of the following is not cited as a method by which UNO could safeguard peace?
- (A) It could think of drawing on national armed forces even without having a big army of its own.
- (B) Training manuals for the new soldiers could be prepared.
- (C) Specialists like multilanguage signallers could be employed.
- (D) A number of intelligence officers could be employed to keep an eye on countries' affairs.

29. What, according to the first article of the charter of the United Nations Organisation, is one of its duties?
- (A) To see that each of its member countries uses its military force properly and in time.
- (B) To use force on countries which do not pay heed to its decisions.
- (C) To suppress all violent acts and breach of peace by its members.
- (D) To see that each of its members destroys all its nuclear weapons.

30. What did the Secretary General of UNO have in mind while presenting his last annual report?
(A) Legislative decisions have to be accompanied by executive action to some extent.
(B) United Nations Organisation should work only as a conference bringing about reconciliation through discussion.
(C) The UNO does not have the right to interfere unless two or more of its members get into serious conflicts.
(D) Nuclear weapons are the only way to resolve conflicts between any two countries.

31. Which are the true statements according to the passage?
(a) One of the negative fall–outs of nuclear deterrence is that it does not result in an end to arms race.
(b) It may be impossible to coerce Great Powers into submission.
(c) UNO cannot take care of all the countries of the world as they are not its members.
(d) Fear of reprisal is the essence of nuclear deterrence.
(A) a and c (B) a, b and d
(C) b, c and d (D) a, b, c and d

32. Which of the following options best summarizes the first para of the passage?
(A) Although developing strong nuclear weapons and delivery systems, in order to deter possible attacks and prevent arms usage, may be effective to a certain extent, attempting to produce stability in this way also means continuing the arms race, thus forcing one to doubt Winston Churchill's claim that safety is the sturdy child of terror.
(B) Some western writers and some people in Russia feel that stronger nuclear weapons must be developed in order to create fear in order to limit the possible usage of arms but in reality this would be ineffective because this would lead to stronger retaliation.
(C) Some western writers and some people in Russia believe that creating stronger nuclear weapons and delivery systems can limit the possible usage of arms but in reality this will be counterproductive as it will continue the arms race further.
(D) Contrary to what most people believe, creating stronger nuclear weapons and delivery systems does not actually limit the usage of arms but it will only continue the arms race further.

PASSAGE – V

The burgeoning of electronic auctions made possible by the Internet did not indicate a revolutionary pricing model : auctions existed long before the Internet, computers, or even writing. Indeed auctions and bargaining, which both involved varying the price of a product or service to close a deal, were the earliest forms of trade. Fixed pricing, rather than variable pricing was the newcomer, having arisen with mass merchandising when department stores set fixed prices, so that their clerks could not offer discounts to their friends and relatives. Historians have found evidence of auctions in the earliest human societies, and Mesopotamian traders had developed sophisticated auctions by 8000 BC.

By the time the Internet emerged, auctions were used in many settings. A key difference among these settings was how bidders valued the item being auctioned. The amount a bidder was willing to pay was often subjective. For example, different bidders were willing to pay different amounts for a fine bottle of wine that they intended to consume themselves (rather than to keep for later resale) or for a painting they would hang on their wall. This was the *private values* case. In other instances, however, the item for sale had an objective value – for example the right to drill for oil beneath a particular tract of land – and all bidders would share a common value (if they knew what it was). Of course, even in that case different bidders might be willing to pay different amounts because they had different information about the item and therefore different estimates of its common value.

The form of auctions also varied. One important distinction was whether the auction was *open* or *sealed bid.* In an open auction, bidders knew previous bidders' bids and could make their own bids in light of this information. The most familiar form of this was the *open outcry* or *English auction* in which bidders called out successively higher bids. In sealed bid auctions, each bidder submitted a single bid, and the winner was the one who bid the highest. In that setting bidders did not know what others were bidding and usually not even how many other bids would be tendered.

33. Large stores found it necessary to adopt a system of fixed prices to
(A) make accounting easier.
(B) increase their customer base.
(C) ensure uniformity in selling price.
(D) increase in profit margins.

34. The feature common to auctions and bargaining is
(A) both have one party each, on the two sides of a transaction of sale.
(B) both have multiple parties among sellers.
(C) both have multiple parties among buyers.
(D) in both cases, prices remain variable until agreed upon.

35. As a form of trade, auctions
(A) are an earlier form than bargaining.
(B) date back about 8000 years.
(C) are a later form than bargaining.
(D) date back about 10000 years.

	Passage 1	Passage 2	Passage 3	Passage 4	Passage 5
No. of words	786	846	815	865	361
No. of Qs.	12	6	7	7	3

EXERCISE – 8

(Recommended Time : 60 Minutes)

Directions for questions 1 to 35: Read the given passages carefully and choose the best answer for the questions that follow each passage.

PASSAGE – I

Where are you? To find out, align your global positioning system with some satellites, check the co-ordinates and pencil them on to a chart. Easy. But which is the miracle invention here: the space technology, or the chart? Surely the chart.

For three millennia, man has tried to map his world exactly. In vain. One reason, till recently, was that he did not know what to put where. Chunks of Africa, Antarctica and Australia were empty spaces on maps only 100 years ago. The maps were often beautiful, adorned with saints, dragons and wind-puffing cherubs, and nearly always useful, to sailors, merchants, travellers and generals, but none was perfect.

Even now, none can be. The many dimensions of the globe, its curves and changing bumps, its shifting borders and evolving landscapes, cannot all be depicted accurately on a flat sheet of paper. Not only had man to travel everywhere, and find a way to record his journey (by discovering magnetic north, inventing longitude and latitude, building chronometers and theodolites, and so on), he had then to twist, reshape and abstract all he recorded. Just as an orange may be peeled in umpteen ways, so may a globe be flattened into a map. One, from 1530, shows the world like a heart, others show it like an eye, a T, a circle or a pair of circles. All distort what's really there.

And in distorting reveal. How you present the world tells something of your interest, politics, culture and perspective. Why, ask antipodeans, put north at the top? No reason, but that the world-circling Europeans lived there, they reckoned top better than bottom, and they made most maps. An upside-down one reveals a different world. One student of maps argues that the world map has always been shaped not by science alone, but by religion, politics, art and obsession. Themes such as divine power, the natural elements, secular ambitions, recur constantly and express more than pure geography.

For notable instance, religion. Medieval mappers put much effort into locating Paradise. The Bible describes Eden as an earthly heaven with four rivers flowing from it. Surely it, and they, could be found! England's Hereford Mappa Mundi, drawn in about 1300, put Eden as far east from Britain as one could go. Others put it in East Africa or Asia, moving it on as Europeans went there and found no sign of it. Only 700 years ago, Europe's knowledge of the planet extended no further than Ptolemy's in Roman times; just into northern Africa and western Asia. A Japanese Buddhist map from those days included China, the Himalayas, India and Persia. For it, Paradise is on a mountain called Kailash, in Tibet. These were maps (typically world maps, intended also as works of art) of the religious imagination – or ecclesiastical authority – as much as of the continents. Medieval Europe's map makers did not suppose that they knew the exact co-ordinates of Paradise, but they wanted to show that it was indeed on Earth, as holy writ and the church declared. As late as 1582, one map of the world went further, depicting the sites of Judgement.

Suddenly, in the late 16th century, Paradise was lost, except on some regional maps. Reason was at the helm, and, particularly niggling, travellers to the East had reported no Eden to be found. The empiricism that now dominated philosophy and science inspired new mapping. With the Renaissance, as a modern novelist, Federico Andahazi, puts it, "the cartography of Heaven changes as well as that of Earth and that of the body." Suddenly map makers had to squeeze on the Americas.

Europe's map makers may have had an inkling of the Americas long before Columbus's voyage in 1492. Though most of their world maps before them showed only Europe, Africa and Asia, few added a fourth continent. The Beatus map of 1109, a copy of one from 776, includes such a continent beyond the Red Sea. Long before, the Roman historian Pliny had speculated that there was another patch of land, to balance those already known. In 150 BC, a large model globe was exhibited in Rome, showing four land masses. Europe's pre-Columbians may not have had evidence of another continent, but plainly some felt that there should be one. Some in fact did have evidence. Vikings certainly reached North America long before 1492. What's less certain is the famous Vinland map, supposedly from the 15th century, that is claimed to document their notion of its coast; studies of the map's links and stains suggest it may well be a fake.

The most revealing thing about maps of the past 1,000 years, however, is the record of what the world's best informed people did not know. Some things which seem obvious now could not have been found without maps: that Brazil's bulge fits neatly into West Africa's dent, and so to the theory of plate tectonics, for example. The terra incognita, usually populated with monsters, mermaids and camels, inspired generations of explorers to set out for adventure. As those unknown territories shrunk on maps, a record was left of the limits of the western man's world. By the late 18th century and after Captain Cook's exploration of the southern Pacific (to check that no great southern continent existed), much of the world had been charted. It became, impossible to sail off the map, there was nowhere left to misplace Paradise and imagination had less to do.

1. When the author says '…… there was nowhere left to misplace Paradise', he probably means that
- (A) there was hardly any unknown territory in the world.
- (B) Paradise should never have been placed on the earth in the first place.
- (C) there is no value for virtues in today's world.
- (D) nobody cares for Paradise today.

2. The author considers the chart a miracle invention as
- (A) man has been trying to map the world for three millennia.
- (B) maps are still imperfect.
- (C) it represented the many-dimensional earth on a flat piece of paper.
- (D) despite several setbacks, it gives us an idea of where we are.

3. Eden was placed in the far east by Herford Mappa Mundi due to the fact that
(A) the holy writ and the church declared it so.
(B) it was as yet an unknown territory.
(C) they did not know the exact coordinates of Paradise.
(D) they wanted to show that it was indeed on Earth.

4. The north is at the top because
(A) of the ignorance about southern hemisphere when maps were initially drawn.
(B) of the influence of religion politics and art in map making.
(C) the map makers preferred their place to be at the top rather than the bottom.
(D) of accidentally putting it there, at first.

5. Paradise was lost in the 16th century as a result of
(A) travellers to the East not finding it there.
(B) a pragmatic approach adopted in philosophy and science.
(C) of the discovery of America.
(D) of the change in peoples' attitude after Renaissance.

6. The analogy of an orange is used to show
(A) that the different maps of the world are all correct.
(B) that the Earth is heart–shaped on a two dimension scale.
(C) the imperfections in the existing maps.
(D) the inevitability of distortions in maps.

7. Which of the following suggest the existence of America even before Columbus had discovered it?
a. Some maps having a fourth continent – apart from Europe, Africa and Asia.
b. Pliny's speculation that there was another patch of land to balance those already known.
c. The Viking having reached North America long before 1492.
d. The maps of medieval Europe.

(A) Only a (B) a and b
(C) a, b and c (D) All the above

8. The charting of the world during the last thousand years
(A) brought about the theory of plate tectonics.
(B) revealed an ignorance concerning certain issues among the educated people of the past.
(C) left scope for imagination in cartography.
(D) (A) and (B)

9. Pick out the statements that do not reflect what is stated in the passage.
a. Paradise was on Mount Kailash in a Japanese Buddhist map.
b. Pliny was a Roman cartographer.
c. Religion, politics and art have all influenced the shaping of world maps of yesteryears.
d. Maps showed that Brazil's bulge fits into West Africa's dent.
e. The Vinland map of 15thC is considered a genuine document.

(A) b and e (B) a and e
(C) b, c and d (D) a, b and c

PASSAGE – II

A friend of mine wrote to me the other day that 'the sceptre has passed from literature to science'. He is, of course, a man of science himself. And it seemed rather strange that he should use such a very literary phrase to express his triumph. It would have been more appropriate if he had sent me an equation. I should not have known what the equation meant. Perhaps that was the reason why he sent me a metaphor instead. If we take my friend to mean that science is now become a more important activity of the human mind than literature, is he saying that Boyle's law is more valuable than a bookcase? Is he not like a man who insists on comparing the values of logarithms and love? And if we suppose he means only that at the present time, abler minds are engaged in scientific discovery than in literary creation, it is a question exceedingly difficult to judge. Quite possible our bridges are better built than our poems nowadays. As Socrates would have said, our bridges have more of the goodness of bridges than our poems have of the goodness of poems. But that does not mean that a bridge is more important than a poem, or a poem than a bridge.

I suspect that what my friend has in his head is that Einstein's theory is a discovery of supreme philosophical importance; and that this will have a determining influence upon the future evolution of literature. It is quite true that scientific theory does not have an influence upon literary creation. But it has to be translated into emotional life. The theory of Natural Selection, emotionally interpreted as handing man over to the play of blind and uncontrollable forces, certainly gave a pessimistic tinge to the literature of the nineteenth century. The Copernican Revolution no doubt contributed to that emphatic isolation of the individual which is the beginning of modern romanticism. But we cannot say that the literature of the nineteenth century is either more or less important than Darwinism or the Copernican Revolution. There is no means of comparing them. What we can say is that literature may wear better. When those two scientific theories have been exploded, as we are told they are being exploded now, the great books created by minds coloured by them will remain fresh and valuable as ever.

For the truth of the matter surely is that there are very few emotional attitudes towards life which a man can truly and instinctively hold. He may believe life is painful and pitiful, he may believe it is glorious and splendid, he may confidently hope, he may continually despair, he may, alternate between hope and despair. What his attitude will be is determined by many things; his heredity, his personal destiny, and to some degree by the scientific theories that are obtained in his lifetime. A scientific theory which directly affects his hope of long life or immortality of better things to come, colours his mind and gives a twist to his sensibility. He becomes, if he is a writer, differently interested in life. In so far as either the Einstein theory or the modern biology opens up new vistas of the significance of duration of human life, they will determine a change of tone in literature. Possibly the pessimism which still hangs about us like a cloud will be dissipated for reason. But it will return, simply because it is an eternal mode of the human spirit. And it may be dispelled without the cleansing wind of science, because optimism also is a natural mode of the human spirit.

Literature changes tone in obedience to these modes. But its substance is unchanged for that is based on delighted interest in human life and destinies. Science has no power over that interest which is a gift of the gods like that of the genius communicating it. When the man of science has the power to determine or to change the structure of our minds, then literature men will fear him also and there will be a massacre of biologists. But till that day, science can do no more to literature than to help to decide whether its vision of life shall be tinged with pity or happiness, resignation or confidence.

This may equally be decided by the indifference of the writer's distress or his happiness in love. Science is only one of the things which colour the glasses through which the writer looks at life; at present it can neither give nor take away the gift of seeing clearly through the glass; neither can it increase nor diminish the pleasure of those who take delight in what the writer can show them. The sceptre of science may be more majestic. Beside its messy steel, the rod of literature may appear slight and slender. We do not except a magician's wand to look otherwise.

10. What was the effect of the Copernican Revolution on literature?
(A) Great books were created by great minds which had a long-lasting influence on the society.
(B) There was an emphasis on the isolation of the individual leading to the beginning of romanticism.
(C) Many scientific theories were put forth of which Darwin's Theory of Origin was one.
(D) The theory of Natural Selection was rejected by the intelligentsia.

11. In the statement, 'it will return' (para 3), the word 'it' implies
(A) a change of tone in literature.
(B) pessimism.
(C) cleansing wind of science.
(D) poet's sensibility.

12. What, according to the passage, is the only help that science can do to literature now?
(A) It can help the substance of literature change from time to time.
(B) It can assist literature decide how its vision of life shall be.
(C) It can influence literature in determining the attitude of human beings towards life.
(D) It can help literature become optimistic in its vision of life.

13. The concluding lines of the passage suggest that
(A) science is so powerful that literature definitely loses in the race.
(B) the magic of literature makes science appear to be a beast in comparison.
(C) the delicate beauty of literature will never fade.
(D) science can never hope to overthrow literature.

14. How does scientific theory affect a human being?
(A) It opens new vistas of literature for him.
(B) It colours his mentality and influences his sensibility.
(C) It makes his vision more majestic than anything else.
(D) It becomes one of the eternal codes of human life.

15. What did the author think was his friend's opinion of Einstein's theory?
(A) That it is of high philosophical importance.
(B) That it has only scientific relevance.
(C) That it would in no way be related to literature.
(D) That it would inspire further scientific theories.

16. How does science act, in relation to the writer?
(A) It influences the way he looks at things.
(B) It enhances the dimension of the things he presents.
(C) It generally dilutes the lucidity of a writer's work of art.
(D) Science touches a writer's work with a magician's wand.

17. The substance of literature remains unchanged because it
(A) does not lend itself to change in order to keep pace with the changing world.
(B) does not allow science to have the slightest effect on itself.
(C) depends solely on the pessimistic or optimistic attitudes of human beings.
(D) depends on an interest in human life and destiny.

18. Which could be the reason for the pessimism noticed in 19th century literature?
(A) Emotional interpretation of a scientific theory.
(B) Exertion of influence by uncontrolled forces.
(C) Colouring of one's perception of life and thereby one's literature by one's emotions.
(D) Pessimism apparently being the prevailing mode of human spirit.

PASSAGE – III

Genes too, often get a bad press. This is not surprising since there are "bad" genes as well as "good" ones, and bad news grips readers more than good news. Bad genes are actually mutated good genes, which, because of altered DNA messages, do not function normally. One particularly bad gene leads to Huntington's disease, which progressively destroys key nerve cells. Most of an individual's genes, however are inherently good. Collectively they are the instruction book for our bodies – without the right instructions from our genes, we could not develop into functioning adults. And fortunately, many bad genes – like that for cystic fibrosis – have no immediate consequence since they are expressed only when copies are inherited from both the father and mother. Carriers possessing only one copy of this gene are much more common (around one in 25) than individuals with the disease (around one in 2,300).

Until recently, there was no way to isolate and characterise bad genes. They were known only by their consequences: disease. Today, however thanks to the development of powerful new ways for studying DNA, there is a flood of information about the faulty genes implicated in virtually every major human disease, including diabetes, cancer and asthma. Every week or so, a new disease gene is discovered.

But, with almost routine ways now available to test DNA samples for the presence of specific mutant genes, there is increased anxiety that an individual's genetic heritage may be vulnerable to unwanted prying. The DNA from a single human hair for example may be sufficient to alert a prospective employer or health insurer to a person's genetic predisposition to disease. Broad privacy laws must therefore be enacted to forbid genetic tests without the informed consent of the individual involved. But even with such laws, dilemmas will arise when individuals do not realise the significance of the proposed genetic screening. These tests warn of impending disease, but do not cure. And how many people would want to have certain knowledge that they will contract a disease for which there is no cure?

Banishing genetic disability must therefore be our primary concern. We would not worry about testing for a predisposing gene for Alzheimer's disease if we already had the cure. In this case, knowing that an individual is seriously predisposed might allow drug therapy to begin before brain functioning is irreversibly diminished. The recent discovery of several genes whose malfunctioning leads to Alzheimer's provides the pharmaceutical industry with important molecular targets for drug development. Only through the discovery of these kinds of genes can biomedical research stop this most pernicious cause of human senility.

We must never, however, live under the misconception that we will ever effectively control the majority of genetic diseases. Many are likely to prove intractable to drug therapies or genetherapies in which good genes are introduced into cells to compensate for bad ones. It will be particularly difficult to compensate for genes that malfunction during foetal development. If key genes controlling the networking of brain cells don't come into action in the womb, no drug or gene therapy procedure will be able to correctly re-wire the brain later.

There is a great difference of opinion as to whether steps should be taken to prevent the birth of genetically impaired children. Many are opposed for religious reasons to trying to control the genetic destinies of children. But the possibility of controlling our childrens' genetic destiny strikes me as only good. It is grossly unfair that some families' lives are dominated by the horrors of genetic disease. As a biologist, I know that people suffering from genetic disease are the victims of unlucky throws of the genetic dice. Mutation has been and always will be an essential fact of life, since it is through mistakes in gene replication that the positive genetic variants arise which are the lifeblood of evolution. If the gene copying process were perfect, life as it now exists never would have come about. Genetic disease is the price we pay for the extraordinary evolutionary process that has given rise to the wonders of life on earth.

I thus do not see genetic diseases in any way as an expression of the complex will of any supernatural authority, but rather as random tragedies that we should do everything in our power to prevent. There is, of course, nothing pleasant about terminating the existence of a genetically disabled foetus. But doing so is incomparably more compassionate than allowing an infant to come into the world tragically impaired. There is, of course, the question of who should have the authority to make decisions of this kind. Here the message of past eugenic practices is clear. Never let a government, no matter how apparently benign, into the process. The potential mother should have this authority. It is she who is likely to be most involved with the upbringing of the child.

I am aware that some will argue that the foetus has an inalienable right to life. But the process of evolution never regards any form of life, be it adult or foetus. It's better to see humans as wonderful social animals having needs (for food, health, for example), capabilities (for thought and love among others) and responsibilities (including that to work with other human beings to see that everyone's needs are adequately met). Working intelligently and wisely to see that good genes – not bad ones – dominate as many lives as possible is the truly moral way for us to proceed.

19. From the stand adopted by the author regarding the medical termination of genetically disabled foetus, we can say that he is, first of all
(A) an atheist. (B) a rationalist.
(C) an agnostic. (D) an iconoclast.

20. Identify the true statements regarding bad genes as inferred from the passage:
(a) They are good genes that have turned bad.
(b) Their functions are affected because of alterations in DNA messages.
(c) Disease is the manifestation of bad genes.
(d) Expression of bad genes will take human evolution forward.

(A) a and b (B) b, c and d
(C) a, b and c (D) b and c

21. There is no fear of large scale occurrence of genetic diseases because
(A) they occur very rarely.
(B) man does not suffer acutely if they attack him.
(C) they manifest themselves only once in several generations.
(D) these diseases do not manifest themselves in carriers.

22. One of the following explains the principle behind gene therapy:
(A) good genes introduced into cells to compensate for bad ones.
(B) bad genes are removed by surgery.
(C) laser treatment to correct bad cells.
(D) None of the above

23. Privacy laws need to be enacted regarding the testing of an individual's DNA because the test results
(A) are likely to be used against him.
(B) reveal his genetic predisposition to certain diseases.
(C) may become public knowledge thus inviting societal ostracism.
(D) can be used by pharma industries to develop specific molecules.

24. The phrase "unlucky throws of dice" hints at
(A) cruel hands of fate.
(B) probability.
(C) karma.
(D) ways of evolution.

25. A suitable title for the passage would be:
(A) Privacy laws - to enact or not?
(B) Genes - cause of all diseases
(C) Eugenics- the answer to bad genes?
(D) DNA - its evolution

26. Genes are
(A) inherited from both parents.
(B) inherited only from mother.
(C) created after birth.
(D) inherited only from father.

PASSAGE – IV

Of all the scientific discoveries that have disturbed the religious mind, none has had the impact of Darwin's theory of evolution by natural selection. No advance of physics or even cosmology has produced such a shock. In the early days of Christianity, the Church Fathers Thoephilus of Antioch and Clement of Alexandria rejected the knowledge, common since the time of Plato, that the Earth is a sphere. They insisted on the literal truth of the Bible, and from Genesis to Revelation, verses could be interpreted to mean that the Earth is flat. But the evidence for a spherical Earth was overwhelming to anyone who had seen a ship's hull disappear below the horizon while its masts were still visible, and in the end the flat Earth did not seem worth a fight. By the later Middle Ages, the spherical Earth was accepted by educated Christians. Dante, for example, found the core of the spherical Earth a convenient destination for sinners. What was once a serious issue had become a joke. A friend at the University of Kansas had formed a Flat Earth Society to demand – in mockery of the demand by Kansas creationists that schools present "Intelligent Design" as an "alternative" to evolution – that Kansas public schools teach flat-Earth theory as an "alternative" to spherical-Earth theory.

The more radical idea that the Earth moves around the Sun was harder to accept. After all, the Bible puts mankind at the centre of a great cosmic drama of sin and salvation, so how could our Earth not be at the centre of the universe? Until the nineteenth century, Copernican astronomy could not be taught at Salamanca or other Spanish universities, but by Darwin's time it troubled hardly anyone. Even as early as the time of Galileo, Cardinal Baronius, the Vatican librarian, famously quipped that the Bible tells us how to go to heaven, not how the heavens go.

A different challenge to religion emerged with Newton. His theories of motion and gravitation showed how natural phenomena could be explained without divine intervention, and were opposed on religious grounds at Newton's own university by John Hutchinson. But opposition to Newtonianism in Europe collapsed before the close of the eighteenth century. Believers could comfort themselves with the thought that miracles were simply occasional exceptions to Newton's laws, and anyway mathematical physics was unlikely to disturb those who did not understand its explanatory power.

Darwinism was different. It was not just that the theory of evolution, like the theory of a spherical moving Earth, was in conflict with biblical literalism; it was not just that evolution, like the Copernican theory, denied a central status to humans; and it was not just that evolution, like Newton's theory, provided a non-religious explanation for natural phenomena that had seemed inexplicable without divine intervention. Much worse, among the natural phenomena explained by natural selection were the very features of humanity of which we are most proud. It became plausible that our love for our mates and children, and, according to the work of modern evolutionary biologists, even more abstract moral principles, such as loyalty, charity and honesty, have an origin in evolution, rather than in a divinely created soul.

Given the battering that traditional religion has taken from the theory of evolution, it is fitting that the most energetic, eloquent and uncompromising modern adversaries of religion are biologists who helped us to understand evolution: first Francis Crick, and now Richard Dawkins. In The God Delusion, Dawkins caps a series of his books on biology and religion with a swinging attack on every aspect of religion – not just traditional religion, but also the vaguer modern assortment of pieties that often appropriates its name. In the unkindest cut of all, Dawkins even argues that the persistence of belief in God is itself an outcome of natural selection – acting perhaps on our genes, as argued by Dean Hamer in The God Gene, but more certainly on our "memes", the bundles of cultural beliefs and attitudes that in a Darwinian though non-biological way tend to be passed on from generation to generation. It is not that the meme helps the believer or the believer's genes to survive; it is the meme itself that by its nature tends to survive.

27. The Bible, according to Cardinal Baronius, the Vatican librarian,
(A) has impeded the progress of science.
(B) has made it difficult to accept the Copernican theory.
(C) is restricted to morality and has nothing to do with science.
(D) has clashed with science regularly through the centuries.

28. The author's approach in the last para of the passage seems to be
(A) speculative. (B) humanistic.
(C) commiserating. (D) practical.

29. Which of the following options summarizes the second para of the passage most appropriately?
(A) Isolating and characterizing bad genes was unknown in the past but now due to the availability of powerful new ways of studying DNA we have information about the defective genes implicated in all major diseases.
(B) The development of powerful new ways for studying DNA has provided us with information about faulty genes in almost all major human diseases such as diabetes, cancer, asthma etc.
(C) Isolating and characterizing bad genes was hitherto unknown but, now, the development of powerful new ways of studying DNA has provided us with information about the faulty genes implicated in practically all major diseases and a new disease gene is discovered almost every week.
(D) Isolating and characterizing bad genes was unknown in the past but the development of powerful new ways of studying DNA has provided us with information about the faulty genes implicated in diabetes, cancer and asthma and a new disease gene is discovered every week.

30. How was Darwinism 'different'?
(A) It was in the area of evolutionary biology rather than physics.
(B) It was unlike Newton's theory or Copernican theory
(C) It was based on experimental evidences
(D) It found an evolutionary base for the virtues which made man believe he was divine.

31. Dawkin's, 'unkindest cut' in 'The God Delusion' is
(A) the battering he gives to every aspect of religion.
(B) that the belief in god itself is the result of inheritance.
(C) his attack on various pieties that go by the name of religion
(D) the charges he levied on the cultural beliefs

32. The words'….in the end the flat Earth did not seem worth a fight' means
(A) the shape of the earth being spherical had been proved beyond doubt so that there was no point in contradicting it.
(B) there is no point in fighting over the shape of the earth - leave each one to his own belief.
(C) the shape of the earth does not affect us in any way, so there is no reason to fight over it.
(D) there was no requirement to fight since the concept was equally acceptable to all.

PASSAGE – V

We humans have built a creativity machine. It's the sum of three things : a few hundred million computers, a communication system connecting those computers, and some millions of human beings using those computers and communications.

This creativity machine is the Internet. It has already changed the way we do science, most importantly by enhancing collaboration between researchers. The present day Internet provides convenient connections between computerized labs, simulations and research databases. It also represents an enormous financial investment that is driven by the demands of hundreds of millions of consumers. As such, the total Internet software and infrastructure investment dwarfs the budgets of scientific research programmes and even of many government defence programmes. And, more than any megaproject of the past, the essence of the Internet is to provide coordinated processing of information. For researchers seeking resources, these are facts worth-considering.

For some disciplines, the Internet itself has become a research tool: grid computing has been used to exploit the power of millions of Internet – connected machines. Building on the popularity of SETI@home – an experiment that uses Internet – connected computers to search for extraterrestrial intelligence – and prime number hunts, there are now physics, medical and proteomics projects enlisting the enthusiasm of people (and their computers) across the world. For linguists and sociologists, new questions can be investigated simply by observing what occurs on the publicly available Internet. Even experimental sociology is possible: in their study of social influence on music preference, Salganik et al, recruited more than 14,000 subjects through a popular-website, ran online trials on these subjects, and then obtained results directly from their experiment website.

The possibilities do not end there. Even online games are attracting academic interest. Some games have millions of players. MMORPGs (massively multiplayer online role-playing games,) such as World of Warcraft and EverQues', feature vivid three dimensional action involving both cooperation and combat. Another genre of MMORPGs lack a significant combat or quest element and are more often called 'virtual worlds'. For example, the virtual world Second Life has the visual realism of many MMORPGs, but it exists as a venue for the participants rather than as a predesigned adventure. Second Life provides a range of software tools, including a programming language that gives participants the power to create artifacts according to their own designs. Thus, the game depends on the skill and creativity of its participants to generate content. Such virtual worlds have already been used for educational projects, and are worthy of psychological and social research.

33. The primary purpose of the passage is to
(A) elaborate on the creativity machine called the Internet.
(B) show how the Internet can be used as an amusement tool.
(C) list the possibilities of the Internet in both academic research and entertainment.
(D) demonstrate how the Internet, as a reliable source for information, can facilitate research and promote development of creative skills.

34. According to the passage, the Internet can help researchers in all the following ways EXCEPT:
(A) It builds coordination between researchers.
(B) It provides a common source for researchers to gather information about their research projects.
(C) It reduces investment in research projects.
(D) It helps researchers conduct all kinds of experiments online.

35. According to the passage, what can be inferred from the proposition "the Internet itself has become a research tool"?
(A) Some scientists take up for research issues that investigate what happens on the Net.
(B) The Internet forms a grid of computers so that the researcher can make use of the power of millions of Internet-connected computers to gather or share information.
(C) The Internet makes experimental sociology possible.
(D) Researchers in some disciplines can rely on the Internet to form a topic for their research, run surveys or experiments and get the results.

	Passage 1	Passage 2	Passage 3	Passage 4	Passage 5
No. of words	907	821	914	706	417
No. of Qs.	9	9	8	6	3

EXERCISE – 9
(Recommended Time : 60 Minutes)

Directions for questions 1 to 35: Read the given passages carefully and choose the best answer for the questions that follow each passage.

PASSAGE – I

Most of the political reformers of the past agree that authoritarian rule and an excessive concentration of power are among the main obstacles in the way of social and individual progress. Even the communists express at least a theoretical dislike of the centralized authoritarian state. Marx described the state as " a parasite on society", and looked forward to the time, after the Communist Revolution, when the state would automatically 'wither away', that is, fade away and die. But, meanwhile, he insisted, there was to be the dictatorship of the proletariat and an enormous increase in the powers of the central government. The goal of those who wish to change the society for the better is freedom, justice and peaceful co-operation between responsible individuals. Is there the smallest reason to believe that such a goal can be reached through police spying, military slavery, the centralization of power, the suppression of free discussion and the imposition of an authoritarian system of education? Obviously and emphatically, the answer is No. Marx believed that, after the Communist Revolution, the state would, in due course, wither away. This belief is not however, borne out by facts. In any given society, the state exists, among other reasons, for the purpose of ensuring to the ruling class the continuance of its privileges. Thus, in a feudal community, the state is the instrument by means of which the landlords keep themselves in power. Under capitalism, the state is the instrument by means of which the middle class or bourgeoisie retains its right to rule and to be rich. Similarly, under state socialism, the state is the instrument by means of which the ruling bureaucracy defends the position to which it has climbed. A highly centralized dictatorial state may be smashed by war or overturned by a revolution from below : but there is not the smallest reason to believe that it will just wither away. "Dictatorship of the proletariat" is dictatorship by a small privileged minority; it does not lead to liberty, justice, peace, it leads to more dictatorship or to war, or to revolution.

The political road to a better society is the road of decentralization and responsible self-government. Now, a society which is preparing for war cannot afford to be anything but highly centralized. Unity of command is essential, before and after the outbreak of war. Hence the absurdity of talking of the defence of democracy by force of arms. A democracy which makes, or even effectively prepares for, modern, scientific war must necessarily cease to be democratic. No country can be really well prepared for modern war unless it is governed by a tyrant, at the head of a highly trained and perfectly obedient bureaucracy. Further, a country which possesses a highly centralized, all powerful government is more likely to wage war than a country where power is decentralized and the people genuinely govern themselves. This is because, whenever a dictator feels that he is losing his popularity, he is tempted to exploit nationalistic passions even to the point of resorting to war to consolidate his position.

Thus we see that extreme centralization of power is not only necessary if war is to be waged successfully; it is also a contributory cause of war. So long as civilized countries continue to prepare for war, it is highly improbable that any of them will pursue a policy of decentralization and extension of the principle of self-government. The particular circumstances of our times (the accentuation of nationalist sentiments, economic imperialism, racial hatred, ideological conflicts) conspire to create a general war psychosis – fear, suspicion, insane hatred. In such an atmosphere, there is no possibility of civilized countries pursuing a policy of decentralization and extension of self-government. On the contrary, power will tend to become more narrowly concentrated than at present, not only in the totalitarian countries but also in the democratic countries. Like the totalitarian countries, the democratic countries are spending huge sums of money on armaments. Armaments mean not only weapons and explosives but rigorously disciplined men to use them, and a submissive labour force to manufacture them.

Now therefore, more than ever before, it is necessary for the "leftist" politicians in the democracies to see and understand clearly the forces at work, and instead of crying for "a firm stand" against the totalitarian countries, which would inevitably lead to war and consequent curtailment of liberties in the democracies, to strive with all their energies to oppose the forces which are building up towards the catastrophe of war. The need of the hour is to study the forces that lead to war so that they can be intelligently fought. True patriotism, however unheroic it may appear to be, lies in this.

1. How, according to the passage, are democratic countries trying to strengthen their power of self-defence?
- (A) They are trying to inspire nationalist sentiment and promote economic imperialism.
- (B) They are pursuing a policy of decentralization and extension of the principles of self-government.
- (C) They are spending huge sums on the labour force to manufacture armaments and to train people to use them.
- (D) They are making efforts to make power concentrated in a single governing body.

2. How does state socialism describe the state?
- (A) As an instrument that helps the middle class retain its right to rule and acquire property.
- (B) As a means to ensure the continuation of privileges to the ruling class.
- (C) As an instrument by which landlords keep themselves in power.
- (D) As a means by which the bureaucrats in power defend their positions.

3. What would be the consequence of a "firm stand" against totalitarian countries?
(A) A war will have to be fought only with the use of intelligence.
(B) Politicians in the democracies will fail to understand the forces at work.
(C) Possibility of a war and liberty being at stake in democracies.
(D) People will come up with a new spirit of patriotism.

4. What, were the chief obstacles on the way to social and individual progress in the past?
(A) Secret police systems.
(B) Dictatorship of the proletariat and communist ideologies.
(C) Authoritarian rule and excessive concentration of power.
(D) Increase in the powers of the Central Government and military conscription.

5. As understood from the passage, when is a country most likely to prepare for war?
(A) When there is tyrant ruling over the country, with highly trained and obedient bureaucrats.
(B) When it has a perfect democracy equipped with arms required for a modern, scientific war.
(C) When it has its power decentralized and equally distributed among the sections of its governing body.
(D) When the power of command is not concentrated on any single body.

6. The phrase, "dictatorship of the proletariat", according to the author means dictatorship by
(A) a minority.
(B) a majority.
(C) bureaucrats.
(D) aristocrats.

PASSAGE – II

The usual argument against allowing organized retail to expand in the country – irrespective of whether it is domestic or foreign – is the issue of the mom or pop stores or the street corner Kirana shop being put out of business by the big business houses. The traditional kirana shops have several advantages like an in-depth understanding of the buying habits of the community they serve, their location round the corner, ready delivery over the phone and quite frequently monthly credit being offered. With increasing urbanization and the burgeoning consuming class, consumer preferences are gradually changing if the footfalls at the large format organized retail destinations are anything to go by. It is about time we addressed the issue at the level of economics and consumer benefits instead of the emotional dimension at which it is frequently dealt with.

The leftists have clearly articulated their objection to organized retail stating that it fails the three tests that are germane to the issue – whether the investment augments productive capacity, leads to upgradation of technology and generates employment. The country's retail trade, according to the commerce minister, is expanding by 22% p.a. with the addition of some 25 million middle-class consumers. Servicing this robust growth certainly needs massive new investments in capacity creation. In economic terms there is hardly any difference between creating new capacity and the equivalent reduction in avoidable wastage. It is estimated that over 40% of our agricultural produce goes waste because of poor warehousing and the absence of cold chains. If through the expansion of the organized retail industry leading to adequate investment in warehousing and refrigeration, this wastage can be reduced – if not eliminated – substantial benefits will accrue to the growers, the entrepreneurs and the customers.

The traditional intermediation process between the grower and the consumer is riddled with inefficiencies which is exemplified by the farm gate price of onions being around around ₹3 per kg for which the ultimate consumer pays around ₹10 – 12 per kg. Organised retail can substantially cut the intermediation costs by investment in the supply chain – involving a substantial upgradation of technology – and with better organization, consumers can be assured of better products with better shelf lives, accurate weights and probably low or no contamination. This leaves us with the last test of the leftists – the issue of employments generation.

The street corner kirana shops are not exactly the paragons of virtue. It is anybody's guess as to the proportion of kirana shops that keep honest accounts, pay taxes or are a part of the GDP numbers. It is not uncommon for them to fudge on weights, quality and prices with the ready excuse of the myriad taxes that are levied right from the central, state and local levels. On the other hand, organized retailing will generate more taxes for the government and can bring forth the benefits of modern technology, transparency in dealing and the best practices for the consumer.

Just the one fast-food chain McDonald's has reportedly invested ₹800 crore in India in building its supply chain and improving the quality of just one product – lettuce – that its suppliers grow. Like in the case of the IT and Business Process Outsourcing Industries, the impact on employment generation through auxiliary services can be a multiple of the direct employment creation. If Indian farmers can measure up to the international quality standards there is no reason why India can't aspire to feed the world. Modernizing the retail infrastructure has the potential to make a huge difference to the 60% of the population that derives sustenance from agriculture but which contributes to just about a fifth of the GDP.

The last time there was a quantum change in agriculture was about four decades ago during the green revolution and now is the time to usher in the next paradigm change in the sector. The 9% + GDP growth that we frequently speak about has to translate into economic benefits to the two-thirds of the population that have been largely left behind in the decade and a half of economic reforms.

It is not as if all the kirana shops will start closing down with the advent of organized retail. To survive and thrive they will need to stay relevant whether by way of offering locational advantage or by offering better choice and being available at odd hours when the malls are closed or offer better terms of trade. Humanity is yet to find a better system to allocate resources and make available the right goods at the right place, time and price than a healthy dose of competition.

Has the ubiquitous Udipi hotel not survived the advent of fast-food chains including the famous international ones? They have survived because they have upgraded themselves to meet competition with better services, better lighting, wider range of offerings, reduced price, home delivery, etc. In short they have adapted themselves to the higher level of competition and it is wrong to underestimate the capability of entrepreneurs to change and adapt themselves to the new environment.

After all, organized retail can only create competition that will force others to raise the bar. This has happened over the last decade and a half of reforms in sector after sector, be it automobiles, telecom or airlines. Inflation-adjusted prices of several goods and services have in fact come down since the advent of reforms – consumer electronics, telephony, air travel and a host of other goods and services – offering huge benefits to consumers.

Allocating larger and larger budgetary resources towards agriculture, administered by a bureaucracy that is clearly unequal to the task has little chance of delivering results to the intended beneficiaries. The revolution in retail trade and indirectly agriculture – like the revolution in industrial efficiency over the last decade and a half – can only happen with the active involvement of the private sector with minimal involvement of the instrumentalities of the government. The welfare of consumers and growers should gain precedence over the vested interests of myriad intermediaries.

7. The author, gives examples of IT and BPO to show that
(A) quality determines the success of a service.
(B) India can beat the MNCs in their own game.
(C) organized retailing can bring revolutionary changes in the Indian economy.
(D) organized retail can generate employment through auxiliary services.

8. The positive factors of organized retail is/are:
(A) Big business houses could bring benefits to all concerned.
(B) Better quality and reliable weight.
(C) Better tax compliance.
(D) All the above.

9. The relevance of the Udipi hotel in the context of the passage is to establish that
(A) entrepreneurs find ways and means to survive competition.
(B) the smaller shops cannot face the clout and money power of large MNCs.
(C) people in India always support the home grown.
(D) to survive competition you have to focus on the difference.

10. The author in the passage feels that
(A) the government must step in to protect the small shop owners.
(B) the revolution in retail will revitalise the agricultural sector.
(C) the MNCs will realize that the Indian consumers are unpredictable.
(D) Indian farmers can feed the world both in terms of quality and quantity.

11. Traditional kiranas score over organized retail in all but
(A) nearness of location.
(B) extension of credit.
(C) understanding the consumers.
(D) emotional bonds.

12. Which of the following options summarizes the last para of the passage most appropriately?
(A) Allocating large budgetary resources to agriculture, administered by an incompetent bureaucracy does not produce the intended results, a revolution in agriculture can happen only with the active involvement of the private sector and with the minimal involvement of government machinery and when the welfare of consumers and growers takes precedence over the vested interests of the intermediaries.
(B) A revolution in retail trade and indirectly agriculture can take place not by allocating huge budgetary resources administered by an incompetent bureaucracy, but with the active involvement of the private sector and with the minimal involvement of government machinery and if the welfare of consumers and growers takes precedence over the vested interests of the intermediaries.
(C) A revolution in agriculture can take place only if the bureaucracy steers clear of the agriculture sector and the private sector actively involves itself in the administration of budgetary resources and if the welfare of the growers and consumers takes precedence over the vested interests of the intermediaries.
(D) A revolution in the agriculture sector can take place only if the bureaucracy, which has proved ineffective in the industrial sector, does not involve itself in the allocation of budgetary resources and the private sector plays an active role in it and importance is given to the welfare of growers and consumers and not to the vest interests of intermediaries.

13. Which of the following statements is not TRUE according to the passage?
(A) India lacks the resources for proper storage and preservation of agricultural produce.
(B) Most of the kirana shops are not transparent with their accounts.
(C) The number of people preferring to shop at malls rather in local stores, is gradually increasing.
(D) Most kirana shops are likely to go out of business due to the onset of the retail culture.

PASSAGE – III

For as long as multinational companies have existed—and some historians trace them back to banking under the Knights Templar in 1135—they have been derided by their critics as rapacious rich-world beasts. If there was ever any truth to that accusation, it is fast disappearing. While globalisation has opened new markets to rich-world companies, it has also given birth to a pack of fast-moving, sharp-toothed new multinationals that is emerging from the poor world.

Indian and Chinese firms are now starting to give their rich-world rivals a run for their money. So far this year, Indian firms, led by Hindalco and Tata Steel, have bought some 34 foreign companies for a combined $10.7 billion. Indian IT-services companies such as Infosys, Tata Consultancy Services and Wipro are putting the fear of God into the old guard, including Accenture and even the mighty IBM. Big Blue sold its personal-computer business to a Chinese multinational, Lenovo, which is now starting to get its act together. PetroChina has become a force in Africa, including, controversially, Sudan. Brazilian and Russian multinationals are also starting to make their mark. The Russians have outdone the Indians this year, splashing $11.4 billion abroad, and are now in the running to buy Alitalia, Italy's state airline.

These are very early days, of course. India's Ranbaxy is still minute compared with a branded-drugs maker like Pfizer; China's Haier, a maker of white goods, is a minnow next to Whirlpool's whale. But the new multinationals are bent on the course taken by their counterparts in Japan in the 1980s and South Korea in the 1990s. Just as Toyota and Samsung eventually obliged western multinationals to re-think how to make cars and consumer electronics, so today's young thrusters threaten the veterans wherever they are complacent.

The newcomers have some big advantages over the old firms. They are unencumbered by the accumulated legacies of their rivals. Infosys rightly sees itself as more agile than IBM because when it makes a decision it does not have to weigh the opinions of thousands of highly paid careerists in Armonk, New York. That, in turn, can make a difference in the scramble for talent. Western multinationals often find that the best local people leave for a local rival as soon as they have been trained because the prospects of rising to the top can seem better at the local firm.

But the newcomers' advantages are not overwhelming. Take the difference in company ethics, for instance, which worries plenty of rich-world managers. They fear that they will engage in a race to the bottom with rivals unencumbered by the fine feelings of shareholders and domestic customers, and so are bound to lose. Yet the evidence is that companies harmonise to up move, not down. In developing countries (never mind what the NGOs say) multinationals tend to spread better working practices and environmental conditions; but when emerging-country multinationals operate in rich countries they tend to adopt local mores. So, as those companies globalise, the differences are likely to narrow.

Nor is cost as big an advantage to emerging-country multinationals as it might seem. They compete against the old guard on value for money, which depends on both price and quality. A firm like Tata Steel, from low-cost India, would never have bought the expensive Anglo-Dutch Corus were it not for its expertise in making fancy steel. This points to an enduring source of advantage for the wealthy companies under attack. A world that is not governed by cost alone suits them because they already possess a formidable array of skills, such as managing relations with customers, polishing brands, building up know-how and fostering innovation.

The question is how to make these count. Sam Palmisano, IBM's boss, foresees nothing less than the redesign of the multinational company. In his scheme, multinationals began when 19th century firms set up sales offices abroad for goods shipped from factories at home. Firms later created smaller “Mini Me” versions of the parent company across the world. Now Mr. Palmisano wants to piece together worldwide operations, putting different activities wherever they are done best, paying no heed to arbitrary geographical boundaries. That is why, for example, IBM now has over 50,000 employees in India and ambitious plans for further expansion there. Even as India has become the company's second-biggest operation outside America, it has moved the head of procurement from New York to Shenzen in China.

As Mr. Palmisano readily concedes, this will be the work of at least a generation. Furthermore, rich-country multinationals may struggle to shed nationalistic cultures. IBM is even now trying to wash the starch out of its white-shirted management style. But today, General Electric alone seems able to train enough of its recruits to think as GE people first and Indians, Chinese or Americans second. Lenovo's decision to appoint an American, William Amelio, as its Singapore-based chief executive, under a Chinese chairman, is a hint that some newcomers already understand the way things are going.

IBM's approach is possible only because globalisation is flourishing. Many of the barriers that stopped cross-border commerce have fallen. And yet, Mr. Palmisano's idea also depends on the fact that the terrain remains decidedly bumpy. Increasingly, success for a multinational will depend on correctly spotting which places best suit which of the firm's activities. Make the wrong bets and the world's bumps will work against you. And now that judgment, rather than tariff barriers, determines location, picking the right place to invest becomes both harder and more important. Nobody said that coping with a new brood of competitors was going to be easy. Some of today's established multinational companies will not be up to the task. But others will emerge from the encounter stronger than ever. And consumers, wherever they are, will gain from the contest.

14. The ‘world’s bumps will work against you’, if you
- (A) operate in countries that vary significantly in terms of their culture, morals and mores.
- (B) try to do a lot of things in a lot of places.
- (C) standardise your practices irrespective of the requirements of the local people.
- (D) are not sharp enough to identify the advantages a place offers and make the most of it.

15. The well established MNCs of the old world, according to the passage,
(A) have quality and expertise which will help them meet the competition from the new ones.
(B) have high ethics which will be to their disadvantage when they fight the new entrants in their own game.
(C) have both quality and cost advantage.
(D) will have to change their standards in facing competition from the new MNCs

16. Which of the following is IBM's strategy now?
(A) Having a factory at home and sales offices in a number of countries
(B) Setting up mini versions of the parent company in various parts of the world
(C) Having different operations in different places depending on where they are done best
(D) Using cheap labour from developing countries for routine work

17. When the author says the new firms are giving the established ones 'a run for their money' he means that they are
(A) beating them at their own game.
(B) giving them vigorous competition.
(C) forcing them to abandon discriminatory practices.
(D) challenging them to set new standards.

18. The author mentions the new MNCs from Japan and Korea to show
(A) how they shook the veterans from their smugness.
(B) how they set new standards that were adopted globally.
(C) that Asia is the emerging giant that the West has to reckon with.
(D) how they changed the basis of consumer durables.

PASSAGE – IV

Much of our behaviour involves not simply actions, but mental processes such as perception, memory, problem solving and language. While these processes cannot be observed directly, that does not seem sufficient reason to ignore their existence, or the ways in which they affect behaviour. Consequently, the cognitive approach is concerned with thinking, and the mental processes related to it. Unlike the behaviourists, the cognitive approach sees events within the person as being at least as important as the environmental stimuli in the understanding of behaviour, these events within the individual are described as mediational processes or mediators, because they come between the stimulus and the response. Thinking processes like memory, problem solving and language are all based on mediators.

The emphasis on mediating processes, and the way they are defined, is central to the cognitive approach. In contrast to the behaviourists, cognitive psychologists believe that one cannot explain behaviour without reference to something more than stimulus-response connections (the child learning a 'rule' for discrimination problems is one example). However the nature of these mediators is also important, In essence, mediational processes are defined functionally – that is, with reference to how behaviour is altered. These mediators are therefore conceptual; one describes the properties of memory, for example, without concern for its physical embodiment. By contrast, the biological approach also deals with meditational processes, but they are defined physiologically, not conceptually (e.g. looking at how the visual cortex is involved in perception). Hence, the cognitive approach is distinct from the biological approach.

The development of the cognitive approach is closely related to behaviourism, since in part it developed as a reaction against the behaviourists' emphasis on external events (sometimes called radical empiricism). By the time Watson published the first edition of *Behaviourism* in 1924, he felt that his approach was gaining ground against the ambiguities of introspections. Yet at virtually the same point in time, the seeds for a new alternative were being sown. In 1925, a book by a young German researcher named Wolfgang Kolher appeared, called 'The Mentality of Apes'. In this book, he reported observations which suggested that animals could show behaviour which was insightful, and he rejected behaviourism in favour of an approach called 'Gestalt' psychology. The other challenge to behaviourism came from someone who actually called himself a behaviourist. In 1932, E.C. Tolman published a book entitled Purposive Behaviour in Animals and Man'. In this book, he described research which was difficult to explain in terms of traditional behaviourism, which emphasized associations between stimuli and responses. Instead, Tolman talked about learning as based on relationships among stimuli, referred to as forming cognitive maps. In addition, he argued that learning and responding are not the same, and that it is possible to learn without showing a correct response. Taken together, the work of Kohler and Tolman raised basic questions about the validity of behaviourism, and laid the foundations for what has become the cognitive approach. To see how, let us briefly examine each man's work more closely.

While the early behaviourists saw learning as basically a matter of trial and error, Kohler argued that we tend to organize experience in particular ways. This is illustrated by the phenomenon Kohler called insight. Insight is a sudden change in the way one organizes a problem situation; typically this is characterized by a change in behaviour from random responding to rule-based responding. A child solving discrimination problems can show insight, as mentioned above. In general, insight can be described as forming an appropriate schema (or, to use Kohler's term, mental set) for a particular situation.

One of the most famous examples of Kohler's work on insight involved an ape named Sultan. Kohler gave Sultan a series of related problems, in which he had to use a stick to reach for a banana which was placed outside his cage, out of arm's reach. After solving such problems on several occasions, Sultan was then presented with a stick that was not long enough to reach the banana. However, outside the cage was a longer stick. After several unsuccessful tries, Sultan threw down the short stick in evident frustration, and retreated to the corner of his cage. A little later, he suddenly went over to the short stick used it to reach the other, longer stick, and with the new stick reached the banana! As Kohler noted, there was no gradual sequence, as one might expect with shaping, nor did it seem to be the result of trial and error. Instead, there was a sudden transformation in the way Sultan organized the elements – insight. Kohler's work thus created a shift away from seeing all behaviour as trial and error, towards a concern with the internal organizing processes which mediate behaviour.

19. Who laid the foundation for the cognitive approach?
(A) Gestalt (B) Watson
(C) Kohler and Tolman (D) Sultan

20. The cognitive approach differed from the behaviourist approach in all of the following EXCEPT:
(A) Believing that there is a process that comes between stimulus and response.
(B) Deriving their conclusions from practical experiments.
(C) Looking at the mediation process as conceptual rather than physiological.
(D) Not relying only on external events.

21. Kohler's experiment with the apes showed that
(A) apes are capable of learning from trial and error.
(B) unsuccessful attempts eventually lead one to success.
(C) apes can think and learn as much as humans.
(D) there was a sudden transformation in organizing elements that can be called insight.

22. Thinking rightly belongs to
(A) cognitivism.
(B) traditional behaviourism.
(C) biological approach.
(D) None of the above.

PASSAGE – V

The atmosphere is a mixture of several gases. There are about ten chemical elements, which remain permanently in gaseous form in the atmosphere under all natural conditions. Of these permanent gases, oxygen makes up about 21 per cent and nitrogen about 78 per cent. Several other gases, such as argon, carbondioxide, hydrogen, neon, krpton, and xenon, comprise the remaining one percent of the volume of dry air. The amount of water vapour, and its variations in amount and distribution is of extraordinary importance in weather changes. Atmospheric gases hold in suspension great quantities of dust, pollen, smoke, and other impurities which are always present in considerable, but variable amounts.

The atmosphere has no definite upper limits but gradually thins until it becomes imperceptible. Until recently it was assumed that the air above the first few miles gradually grew thinner and colder at a constant rate. It was also assumed that upper air had little influence on weather changes. Recent studies of the upper atmosphere, currently being conducted by earth satellites and missile probing, have shown these assumptions to be incorrect. The atmosphere has three well-defined strata.

The layer of the air next to the earth, which extends upward for about ten miles is known as the troposphere. On the whole, it makes up about 75 per cent of all the weight of the atmosphere. It is the warmest part of the atmosphere because most of the solar radiation is absorbed by the earth's surface which warms the air immediately surrounding it. A steady decrease of temperature with increasing elevation is a most striking characteristic. The upper layers are colder because of their greater distance from the earth's surface and rapid radiation of heat into space. The temperature within the troposphere decreases about 3.5 degrees per 1000 feet increase in altitude. Within the troposphere, winds and air currents distribute heat and moisture. Strong winds, called jet streams, are located at the upper levels of the troposphere. These jet streams are both complex and widespread in occurrence. They normally show a wave-shaped pattern and move from west to east at velocities of 150 mph, but velocities as high as 400 mph have been noted. The influences of changing locations and strengths of jet streams upon weather conditions and patterns are no doubt considerable. Current intensive research may eventually reveal their true significance.

Above the troposphere to a height of about 50 miles is a zone called the stratosphere. The stratosphere is separated from the troposphere by a zone of uniform temperatures called the tropopause. Within the lower portions of the stratosphere is a layer of ozone gases which filters out most of the ultraviolet rays from the sun. The ozone layer varies with air pressure. If this zone were not there, the full blast of sun's ultraviolet light would burn our skins, blind our eyes, and eventually result in our destruction. Within the stratosphere, the temperature and atmospheric composition are relatively uniform.

The layer upward of about 50 miles is the most fascinating but the least known of these three strata. It is called the ionosphere because it consists of electrically charged particles called ions, thrown from the sun. The northern lights (aurora borealis) originates within this highly charged portion of the atmosphere. Its effect upon weather conditions, if any, is as yet, unknown.

23. Which of the following is the best title for the passage?
(A) The makeup of the atmosphere
(B) Studying the atmosphere
(C) Atmosphere and Weather
(D) Temperature in the stratosphere

24. Which of the following questions does the passage answer?
I. What does the atmosphere consist of?
II. How does the ionosphere affect the weather?
III. How do earth satellites study the atmosphere?
(A) Only I
(B) Only III
(C) Only I & III
(D) Only II

25. According to the passage, life as we know it exists on the earth because the atmosphere
(A) contains a layer of ozone.
(B) contains electrically charged particles.
(C) is the warmest at the bottom.
(D) becomes thinner as we go higher up.

26. Jet streams, according to the passage
(A) are a flow of exhaust gases from a jet plane
(B) can be felt just below the troposphere
(C) are strong air currents which move from west to east
(D) are all of the above

27. Pick the odd man out.
(A) Stratosphere (B) Lithosphere
(C) Ionosphere (D) Troposphere.

28. The passage states that the troposphere is the warmest part of the atmosphere because it
(A) is closest to the sun.
(B) contains electrically charged particles.
(C) radiates heat into space.
(D) is warmed by the earth's heat.

29. According to the passage, the atmosphere consists of all the following except
(A) 21% oxygen.
(B) a definite amount of water vapour.
(C) 10 permanent elements.
(D) considerable waste products.

30. The passage can best be described as
(A) discursive (B) informative
(C) analytical (D) didactic.

31. Which of the following is/are false according to the passage?
I. Both within the stratosphere and troposphere, wind and air distribute heat and moisture.
II. The layer of ozone gases in the stratosphere is harmful for our eyes.
III. Within the stratosphere the temperature is rarely uniform.

(A) Only I (B) Only II
(C) Only III (D) All the statements

32. Which of the following statements is/are true?
I. Recent studies indicate that the atmosphere has no definite upper limits, but gradually thins until it becomes imperceptible.
II. An important feature of the troposphere is a steady decrease of temperature with increasing elevation.
III. The effect of ionosphere on the weather conditions has been well established.

(A) Only I (B) Only I and II
(C) Only II (D) All the statements

PASSAGE – VI

There are several factors that explain the increase in store variety and quality in American grocery stores: the generalized increase in wealth has given households the means to purchase more and better products and created larger markets for more specialized products. The gains in technology and food science, along with the widespread reduction in transaction and transportation costs, have enabled producers to increase quality, get better information on what consumers want, and ship those products to stores more quickly, more safely, and all year round. We take for granted the ability to get almost any fruit or vegetable year-round these days, when that was not possible even as recently as the 1970s or '80s. Some of that is due to food science enabling us to grow things indoors, and ship them more cheaply from far away, but it's also due to the growth of global trade agreements reducing the transaction costs of getting produce where it is in season.

Similar factors are at work in explaining the increase in the variety of grocery stores, as more Americans can afford higher end produce and meats and falling costs have made it possible to supply them. They might wish to get their basics at the warehouse or delivered by Amazon, as quality differences are fewer. This fragmentation of the grocery market parallels that of other markets (e.g., recorded music) as technology and falling transaction costs make thinner markets more profitable and, thereby, enable people to obtain more precise matches for their preferences.

33. Which of the following best describes what the passage is trying to do?
(A) It evaluates a business practice followed by a specific business sector.
(B) It analyzes factors responsible for a phenomenon.
(C) It compares different strategies followed by a business sector.
(D) It criticizes a business for making unwise decisions.

34. All of the following explain the advancement of grocery business in America EXCEPT that
(A) Gains in technology and food science reduced the input costs.
(B) Economic advancement of population has increased the business opportunity.
(C) Thinner markets have made the business more competitive.
(D) Business can have insights about customer preferences, because of technology.

35. Which of the following is given by the author as an assumption entertained by consumers?
(A) A single factor cannot wholly explain the in-store variety and quality in American grocery stores.
(B) Advancement of technology has no significant effect on the business of grocery stores in America.
(C) The seasonality of agricultural produce has been overcome by advancement of food science.
(D) Fragmentation of the grocery business has not been favorable to it in the long run.

	Passage 1	Passage 2	Passage 3	Passage 4	Passage 5	Passage 6
No. of words	785	1007	963	787	552	250
No. of Qs.	6	7	5	4	10	3

Key

CRITICAL REASONING

Exercise – 1

1. C	6. A	11. B	16. A	21. D
2. B	7. D	12. A	17. C	22. B
3. D	8. D	13. C	18. B	23. A
4. B	9. C	14. D	19. D	24. D
5. D	10. A	15. D	20. C	25. D

Exercise – 2

1. A	6 C	11. D	16. D	21. D
2. D	7. D	12. B	17. C	22. D
3. A	8. B	13. C	18. D	23. B
4. C	9. D	14. D	19. D	24. B
5. D	10. A	15. B	20. B	25. D

Exercise – 3

1. A	6. D	11. C	16. C	21. D
2. B	7. D	12. D	17. A	22. A
3. D	8. D	13. D	18. D	23. D
4. D	9. B	14. D	19. B	24. D
5. D	10. A	15. C	20. B	25. B

READING COMPREHENSION

Exercise – 1

1. A	6. A	11. D	16. A	21. C	26. C
2. D	7. B	12. A	17. B	22. B	27. A
3. B	8. B	13. B	18. B	23. C	28. B
4. B	9. C	14. B	19. C	24. B	29. C
5. C	10. C	15. B	20. C	25. B	30. A

Exercise – 2

1. C	5. C	9. B	13. C	17. C	21. C
2. A	6. D	10. C	14. B	18. C	22. C
3. C	7. B	11. B	15. C	19. D	23. D
4. C	8. A	12. B	16. D	20. B	24. B

Exercise – 3

1. B	6. D	11. B	16. D	21. B	26. A	31. C
2. B	7. A	12. D	17. C	22. C	27. D	32. B
3. B	8. A	13. B	18. C	23. D	28. B	33. D
4. D	9. D	14. D	19. A	24. A	29. C	34. C
5. D	10. A	15. C	20. C	25. C	30. A	35. D

Exercise – 4

1. B	6. A	11. D	16. B	21. B	26. B	31. C
2. B	7. C	12. B	17. B	22. D	27. D	32. A
3. A	8. B	13. B	18. C	23. C	28. A	33. C
4. D	9. D	14. A	19. D	24. D	29. C	34. D
5. C	10. D	15. D	20. B	25. D	30. B	35. D

Exercise – 5

1. D	6. A	11. C	16. D	21. A	26. B	31. C
2. A	7. B	12. B	17. B	22. C	27. C	32. C
3. C	8. C	13. D	18. C	23. A	28. C	33. B
4. D	9. D	14. C	19. B	24. C	29. A	34. D
5. D	10. C	15. D	20. A	25. D	30. D	35. A

Exercise – 6

1. D	6. D	11. A	16. C	21. B	26. C	31. A
2. D	7. D	12. B	17. B	22. C	27. D	32. C
3. C	8. D	13. B	18. A	23. C	28. C	33. D
4. B	9. C	14. B	19. A	24. D	29. A	34. C
5. A	10. D	15. C	20. C	25. C	30. B	35. A

Exercise – 7

1. B	6. A	11. C	16. C	21. D	26. D	31. C
2. D	7. D	12. D	17. C	22. A	27. A	32. A
3. C	8. B	13. C	18. B	23. C	28. D	33. C
4. A	9. D	14. A	19. C	24. A	29. C	34. D
5. B	10. A	15. D	20. A	25. D	30. A	35 D

Exercise – 8

1. A	6. D	11. B	16. A	21. D	26. A	31. B
2. C	7. C	12. B	17. D	22. A	27. C	32. A
3. B	8. D	13. C	18. A	23. A	28. D	33. D
4. C	9. A	14. B	19. B	24. A	29. C	34. D
5. B	10. B	15. A	20. C	25. C	30. D	35. D

Exercise – 9

1. C	6. C	11. D	16. C	21. D	26. C	31. D
2. D	7. D	12. B	17. B	22. A	27. B	32. B
3. C	8. D	13. D	18. A	23. C	28. D	33. B
4. C	9. A	14. D	19. C	24. A	29. B	34 C
5. A	10. B	15. A	20. B	25. A	30. B	35. C