

Logical Reasoning



**CHANDIGARH
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1-Analogy

In this chapter you will be presented with a pair of words, letters, group of letters, numbers or groups of numbers. From the answer choices, you need to select the choice that best matches the relationship existing b/w two words, letters or numbers.

The given pair of the words, letters or numbers is set off by a colon or ratio sign (:). The colon is merely a kind of code or a symbol which signifies that word A is related to word B. The double colon (: :) that separates the given pair stands for "in the same way as".

Example:

Dark : Light : : ?

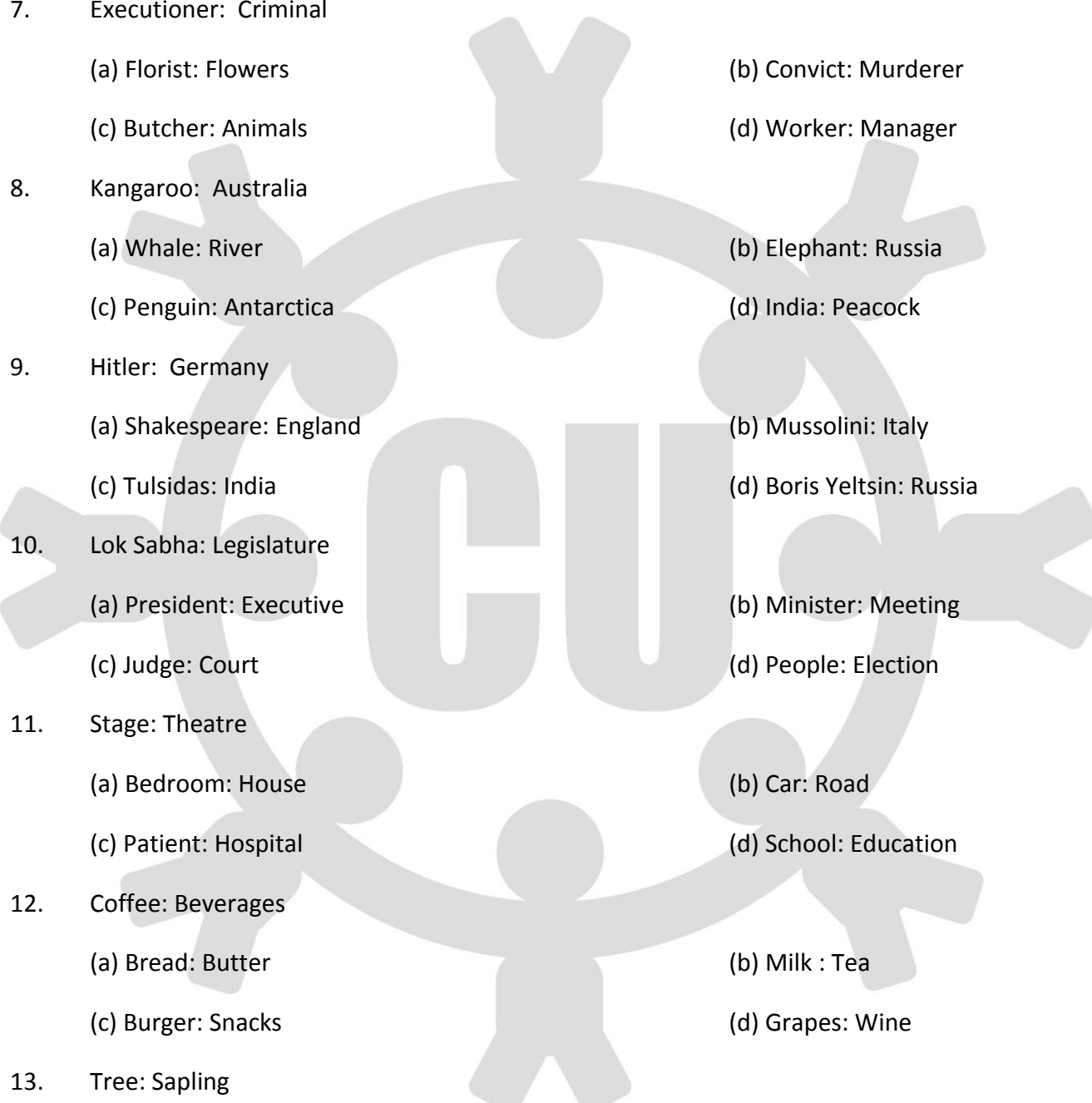
- a) Thin : Slim
- b) Stout : Strong
- c) Germs : Disease
- d) Hot : Cold

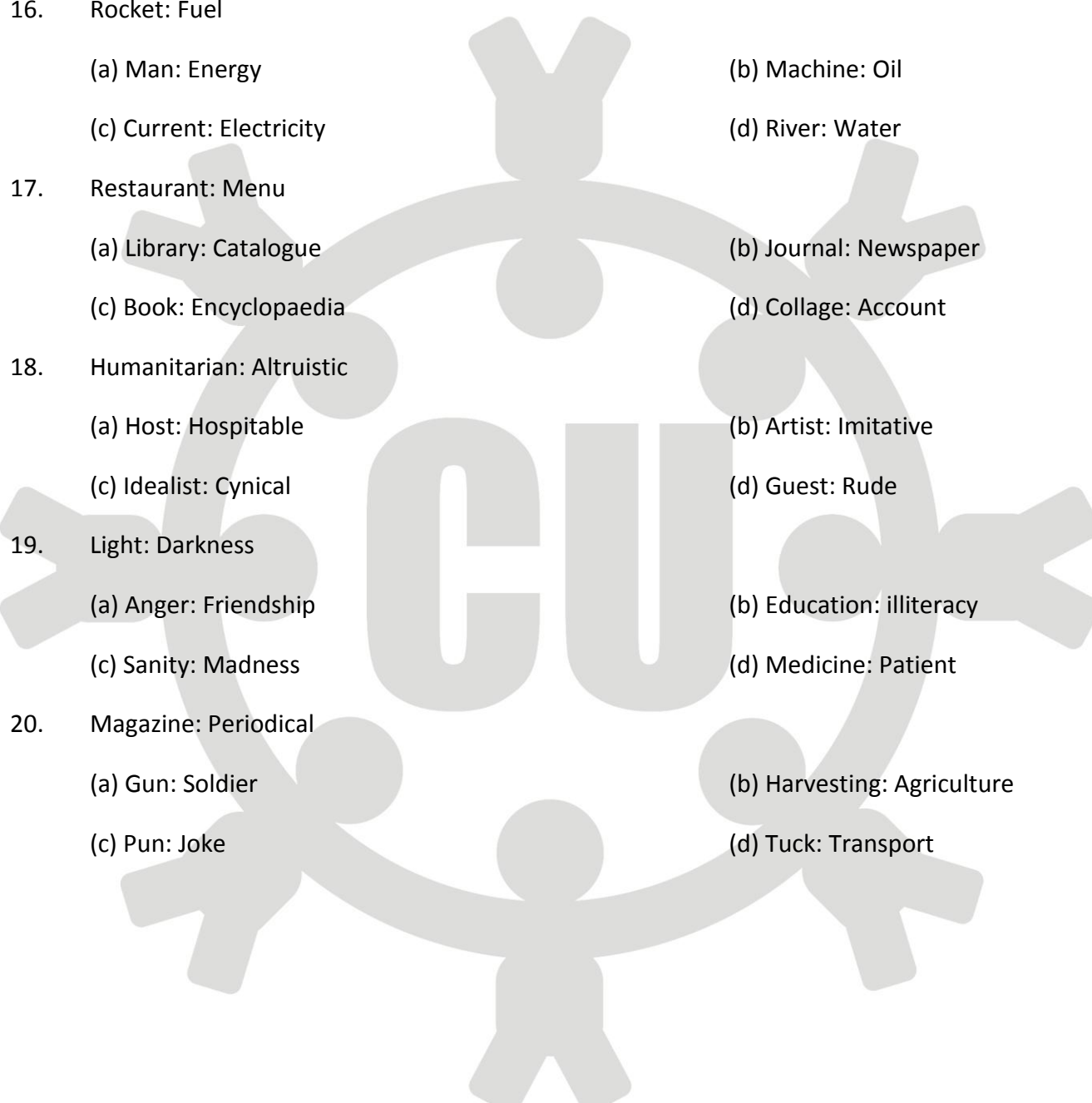
Answer = D

Exercise-1

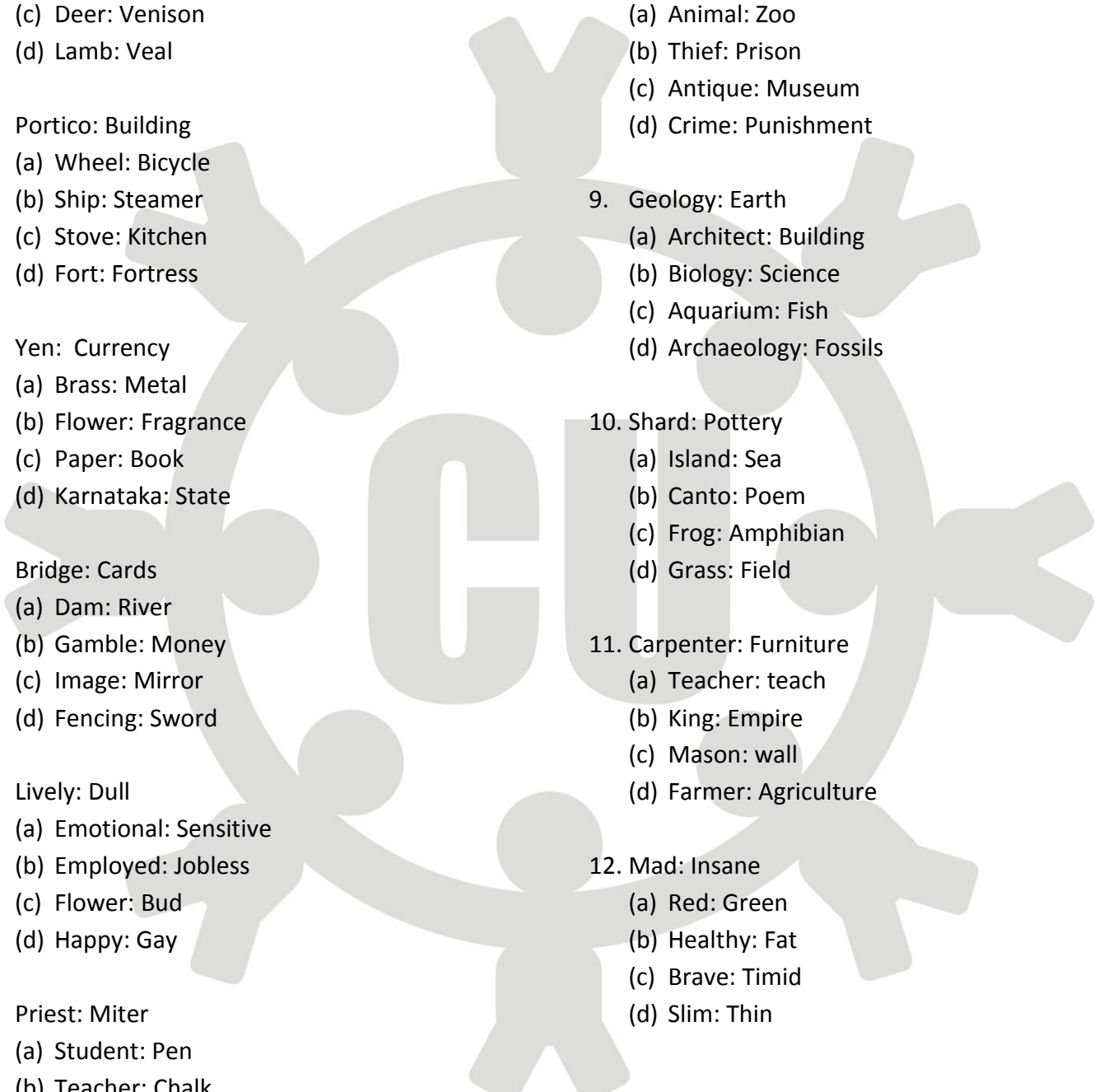
Directions: The following questions consist of two words each that have a certain relationship to each other, followed by four lettered pairs of words. Select the lettered pair that has the same relationship as the original pair of words.

1. Sale: Purchase
 (a) Give: Receive
 (b) Shop: Market
 (c) Cash: Credit
 (d) Profit: Loss
2. Horse: Mare
 (a) Duck: Geese
 (b) Dog: Puppy
 (c) Donkey: Pony
 (d) Fox: Vixen
3. Water: Thirst
 (a) Ripe: Harvest
 (b) Book: Ignorance
 (c) Needle: Stitch
 (d) Rain: Drought
4. Thermometer: Temperature
 (a) Length: Breadth
 (b) Millimetre: Scale
 (c) Cardiograph: Heart rate
 (d) Solar energy: Sun
5. Waiter: Tip
 (a) Student: Marks
 (b) Worker: Bonus

- 
- (c) Employee: Wages
- (d) Clerk: Bribe
6. Biography: Autobiography
- (a) Memoirs: History
- (b) Author: Performer
- (c) Mobile: Automobile
- (d) Testimony: Confession
7. Executioner: Criminal
- (a) Florist: Flowers
- (b) Convict: Murderer
- (c) Butcher: Animals
- (d) Worker: Manager
8. Kangaroo: Australia
- (a) Whale: River
- (b) Elephant: Russia
- (c) Penguin: Antarctica
- (d) India: Peacock
9. Hitler: Germany
- (a) Shakespeare: England
- (b) Mussolini: Italy
- (c) Tulsidas: India
- (d) Boris Yeltsin: Russia
10. Lok Sabha: Legislature
- (a) President: Executive
- (b) Minister: Meeting
- (c) Judge: Court
- (d) People: Election
11. Stage: Theatre
- (a) Bedroom: House
- (b) Car: Road
- (c) Patient: Hospital
- (d) School: Education
12. Coffee: Beverages
- (a) Bread: Butter
- (b) Milk : Tea
- (c) Burger: Snacks
- (d) Grapes: Wine
13. Tree: Sapling
- (a) Rock: Mountain
- (b) Horse: Foal
- (c) Giant: Dwarf
- (d) Hut: mansion
14. Cricket: Pitch
- (a) Ship: Dock
- (b) Boat: Harbour

- 
- (c) Wrestling: Track
- (d) Boxing: Ring
15. Revolution: Change
- (a) Disease: Medicine
- (b) Famous: Notorious
- (c) Food: Energy
- (d) Treaty: Peace
16. Rocket: Fuel
- (a) Man: Energy
- (b) Machine: Oil
- (c) Current: Electricity
- (d) River: Water
17. Restaurant: Menu
- (a) Library: Catalogue
- (b) Journal: Newspaper
- (c) Book: Encyclopaedia
- (d) Collage: Account
18. Humanitarian: Altruistic
- (a) Host: Hospitable
- (b) Artist: Imitative
- (c) Idealist: Cynical
- (d) Guest: Rude
19. Light: Darkness
- (a) Anger: Friendship
- (b) Education: illiteracy
- (c) Sanity: Madness
- (d) Medicine: Patient
20. Magazine: Periodical
- (a) Gun: Soldier
- (b) Harvesting: Agriculture
- (c) Pun: Joke
- (d) Tuck: Transport

Exercise-2

- 
1. Sheep: Mutton
 - (a) Duck: Roast
 - (b) Hen: Poultry
 - (c) Deer: Venison
 - (d) Lamb: Veal
 2. Portico: Building
 - (a) Wheel: Bicycle
 - (b) Ship: Steamer
 - (c) Stove: Kitchen
 - (d) Fort: Fortress
 3. Yen: Currency
 - (a) Brass: Metal
 - (b) Flower: Fragrance
 - (c) Paper: Book
 - (d) Karnataka: State
 4. Bridge: Cards
 - (a) Dam: River
 - (b) Gamble: Money
 - (c) Image: Mirror
 - (d) Fencing: Sword
 5. Lively: Dull
 - (a) Emotional: Sensitive
 - (b) Employed: Jobless
 - (c) Flower: Bud
 - (d) Happy: Gay
 6. Priest: Miter
 - (a) Student: Pen
 - (b) Teacher: Chalk
 - (c) Dictionary: Words
 - (d) King: Crown
 7. Cricket: Football
 - (a) Solid: Liquid
 - (b) Hockey: Ball
 - (c) Prose: Poetry
 - (d) Shoes: Gloves
 8. Bird: Cage
 - (a) Animal: Zoo
 - (b) Thief: Prison
 - (c) Antique: Museum
 - (d) Crime: Punishment
 9. Geology: Earth
 - (a) Architect: Building
 - (b) Biology: Science
 - (c) Aquarium: Fish
 - (d) Archaeology: Fossils
 10. Shard: Pottery
 - (a) Island: Sea
 - (b) Canto: Poem
 - (c) Frog: Amphibian
 - (d) Grass: Field
 11. Carpenter: Furniture
 - (a) Teacher: teach
 - (b) King: Empire
 - (c) Mason: wall
 - (d) Farmer: Agriculture
 12. Mad: Insane
 - (a) Red: Green
 - (b) Healthy: Fat
 - (c) Brave: Timid
 - (d) Slim: Thin

2-Blood Relations

Family tree logical problems mainly deals with the hierarchical structure of a family i.e. grandparents, parents, children etc. Various relationships b/w family members of two or three generations will be given. The entire family tree has to be constructed by putting the various relationships together.

The typical relationships that are seen in family tree problems are parent-child, husband-wife, grandparent-grandchild, uncle/aunt-nephew/niece, brother-in-law/sister-in-law/parents-in-law

A list of important relations that are mostly asked in the examinations

- | | |
|---------------------|--|
| 1. Brother | Son of mother or father |
| 2. Sister | Daughter of mother or father |
| 3. Aunt | Sister of mother or father |
| 4. Uncle | Brother of mother or father |
| 5. Cousin | Son/daughter of uncle/aunt |
| 6. Grandmother | Mother of father or mother |
| 7. Grandfather | Father of father or mother |
| 8. Niece | Daughter of brother/sister |
| 9. Nephew | Son of brother/sister |
| 10. Brother-in-law | Sister's husband, brother of wife or husband |
| 11. Sister-in-law | Brother's wife, sister of wife or husband |
| 12. Daughter-in-law | Wife of son |

Exercise-1

1. T is the son of Q. Q is the daughter of Z, Z is the Husband of W and W is the mother of only son X. What is X to T?
 - a. Uncle
 - b. Father
 - c. Son
 - d. Grandfather
2. Q is the sister of S and S is the wife of K. What is Q to S?
 - a. Father-in-law
 - b. Sister-in-law
 - c. Brother-in-law
 - d. Mother-in-law
3. D and C are children of E, E is the mother of D but C is not the brother of D. What is C to E?
 - a. Son
 - b. Daughter
 - c. Sister
 - d. Brother
4. Z is the father of X and Y is the brother of X. What is Y to Z?
 - a. Daughter
 - b. Brother
 - c. Sister
 - d. Son
5. Mona is the sister of Ravi, Ravi is the brother of Money, Money is the son of Pushpa. What is Pushpa to Mona?
 - a. Sister-in-law
 - b. Sister
 - c. Mother
 - d. Daughter

6. L is the father of K, K is the brother of M and M is the wife of P. What is P to M?
- a. Father-in-law
 - b. Sister-in-law
 - c. Son-in-law
 - d. Brother-in-law
7. R is the sister of F, F is the Husband of G's Sister and L is Sister of O. What is L to R?
- a. Mother-in-law
 - b. Sister-in-law
 - c. Sister
 - d. Daughter-in-law
8. U is the brother of Q. Q is the Husband of K and L is the father of U. What is L to K?
- a. Mother-in-law
 - b. Father-in-law
 - c. Mother
 - d. Sister
9. Mohan is the brother of Dinesh. Dinesh is the son of Murti. Murti is the wife of Mehar Chand. What is Mehar Chand to Mohan?
- a. Father
 - b. Brother
 - c. Mother
 - d. Uncle
10. A is the brother of T. T is the daughter of Q. Q is the wife of S. What is S to A?
- a. Father
 - b. Mother
 - c. Brother
 - d. Sister
11. Santosh is the brother of Dinesh. Dinesh is the brother of Paritosh. Paritosh is the Husband of Garima. Haider is the father of Santosh. What is Haider to Garima?
- a. Brother
 - b. Father
 - c. Father-in-law
 - d. Uncle
12. A is the sister of B. B is the daughter of C. C is the daughter of D. What is D to A?
- a. Father
 - b. Mother
 - c. Brother
 - d. Grandmother
13. U is the father of W. W is the sister of X. X is the husband of Z. What is Z to U?
- a. Son-in-law
 - b. Daughter-in-law
 - c. Daughter
 - d. Sister
14. Ajit is the brother of the son of Sethi's son. What is the relationship between Ajit and Sethi?
- a. Ajit is the grandson of Sethi
 - b. Ajit is the son of Sethi
 - c. Ajit is the brother of Sethi
 - d. Ajit has no relation with Sethi
15. Raghu is the father of Romi and Raghav is the son of Ramesh. Amit is the brother of Raghu. If Romi is the sister of Raghav, how is Ramesh related to Amit?
- a. Brother-in-law
 - b. Sister-in-law
 - c. Husband
 - d. Daughter
16. Q's mother is sister of P and Daughter of M. S is the daughter of P and sister of T. How is M related to T?
- a. Father
 - b. Grandfather

c. Grandmother

d. Grandfather/Grandmother

Directions: A is the son of B. C, B's sister has a son D and a daughter E. F is the maternal Uncle of D.

17. How is A related to D?

a. Cousin

b. Nephew

c. Uncle

d. Brother

18. How is E related to F?

a. Sister

b. Daughter

c. Niece

d. Wife

19. How many Nephews does F have?

a. None

b. One

c. Two

d. Three

Directions:

A is the father of C, but C is not his son.

E is the daughter of C. F is the spouse of A.

B is the brother of C. D is the son of B.

G is the spouse of B. H is the father of G.

20. Who is the Grandmother of D?

a. A

b. C

c. F

d. G

21. Who is the son of F?

a. B

b. C

c. D

d. E

22. C is A's father's nephew. D is A's cousin but not the brother of C. How is D related to C?

a. Father

b. Sister

c. Mother

d. Aunt

23. P is the son of Q, while Q and R are sisters to one another. T is the mother of R. If S is the son of T which of the following statements is correct?

a. T is the brother of Q

b. S is the cousin of P

c. Q and S are sisters

d. S is the maternal uncle of P

24. A is the brother of B, B is the brother of C. D is the father of A. Based on these three statements which of the following statements cannot be definitely true?

a. B is the brother of A

b. B is the son of D

c. A is the brother of C

d. C is the brother of A

25. A is the father of X; B is the mother of Y. The sister of X and Z is Y. which of the following statements cannot be definitely true?

a. B is the mother of Z

b. X is the sister of Z

c. Y is the son of A

d. B has one daughter

e. B is the wife of A

26. Rajan is the brother of Sachin and Manik is the father of Sachin. Jagat is the brother of Priya and Priya is the daughter of Sachin. Who is the Uncle of Jagat?

a. Rajan

b. Manik

c. Sachin

d. None

Directions:

Six persons A, B, C, D, E and F are travelling together. B is the son of C but C is not the mother of B. A and C are married couple. E is the brother of C. D is the daughter of A and F is the brother of B.

27. How many male members are there in the Family?

- a. 1 b. 2 c. 3 d. 4

28. Who is the mother of B?

- a. D b. F c. E d. A

29. How many children does A have?

- a. One b. Two c. Three d. Four

Directions:

*A+B means A is the daughter of B; A*B means A is the son of B and A-B means A is the wife of B.*

30. If $P*Q-S$ which of the following is true?

- a. S is wife of Q b. S is the father of P
c. P is the daughter of Q d. Q is the father of P

31. If $T-S*B-M$, which of the following is not true?

- a. B is the mother of S b. M is the husband of B
c. T is wife of S d. S is daughter of B

32. If $Z*T-S*U+P$, what is U to Z?

- a. Mother b. Grandmother
c. Can't be determined d. None of these

33. $P*Q$ means P is the sister of Q; $P+Q$ means P is the father of Q; $P-Q$ means P is the mother of Q. Which of the following means S is the Aunt of T?

- a. $T*M+S$ b. $S+T*M$
c. $S*M+T$ d. $S*M+R-T$

34. If $A+B$ means A is the son of B, $A-B$ means A is the husband of B, $A*B$ means A is the sister of B. Then which of the following shows that the relation Q is the maternal uncle of P?

- a. $P+B-R*Q$ b. $P-B+R*Q$
c. $P+B*R-Q$ d. $P*B-R+Q$
e. None of these

Exercise-2

1. Pointing to a man on the stage, Rita said, "He is the brother of the daughter of the wife of my husband." How is the man on the stage related to Rita?
 - a. Son
 - b. Husband
 - c. Cousin
 - d. Nephew
 - e. Brother-in-law
2. Showing the man receiving the prize, Saroj said, "He is the brother of my uncle's daughter." Who is man to Saroj?
 - a. Son
 - b. Brother-in-law
 - c. Nephew
 - d. Uncle
 - e. Cousin
3. Pointing to a photograph, a person tells his friend," she is the granddaughter of the elder brother of my father." How is the girl in the photograph related to this man?
 - a. Niece
 - b. Sister
 - c. Aunt
 - d. Sister-in-law
 - e. Maternal aunt
4. Pointing to a photograph, Vipul said," She is the daughter of my grandfather's only son." How is Vipul related to the girl in the photograph?
 - a. Father
 - b. Brother
 - c. Cousin
 - d. Data inadequate
 - e. None of these
5. Pointing out to a lady, a girl said, "She is the daughter-in-law of the grandmother of my father's only son." How is the lady related to the girl?
 - a. Sister-in-law
 - b. Mother
 - c. Aunt
 - d. Mother-in-law
 - e. Cousin
6. Rita told Mani, "The girl I met yesterday at the beach was the youngest daughter of the brother-in-law of my friend's mother." How is the girl related to Rita's friend?
 - a. Cousin
 - b. Daughter
 - c. Niece
 - d. Friend
 - e. Aunt
7. Rahul told Anand, "Yesterday I defeated the only brother of the daughter of my grandmother" Whom did Rahul defeat?
 - a. Son
 - b. Father
 - c. Brother
 - d. Father-in-law
 - e. Cousin
8. Pointing to the lady in the platform, Manju said, "She is the sister of the father of my mother's son." Who is the lady to Manju?
 - a. Mother
 - b. Sister
 - c. Aunt
 - d. Niece
 - e. None of these
9. Arun said, "This girl is the wife of the grandson of my mother." Who is Arun to the Girl?
 - a. Father
 - b. Grandfather
 - c. Husband
 - d. Father-in-law
 - e. None of these
10. Pointing to a Man in a photograph, Asha said." His mother's only daughter is my mother" How is Asha related to man?
 - a. Nephew
 - b. Sister
 - c. Wife

- d. Niece
e. Granddaughter

11. Pointing to man, A woman said, "His mother is the only daughter of my mother." How is the woman related to the man?
a. Mother
b. Daughter
c. Sister
d. Grandmother
e. None of these

12. Looking at the portrait of a man, Harsh said, "His mother is the wife of my father's son. Brother and sisters I have none." At whose portrait was Harsh looking?
a. His son
b. His cousin
c. His uncle
d. His nephew
e. None of these

13. A man said to lady, "Your mother's husband's sister is my aunt." How is the lady related to man?
a. Daughter
b. Granddaughter
c. Mother
d. Sister
e. Aunt

14. Pointing to a girl in the photograph, Amar said, "Her mother's brother is the only son of my mother's father." How is the girl's mother related to Amar?
a. Mother
b. Sister
c. Aunt
d. Grandmother
e. None of these

15. Pointing to a gentleman, Deepak said, "His only brother is the father of my daughter's father." How is the Gentleman related to Deepak?
a. Grandfather
b. Father
c. Brother-in-law
d. Uncle
e. None of these

16. Pointing to a person, a man said to women, "His mother is the only daughter of your father." How was the woman related to the person?
a. Aunt
b. Mother
c. Wife
d. Daughter
e. None of these

17. Pointing to an old man Kailash said, "His son is my son's uncle. "How is the old man related to Kailash?
a. Brother
b. Uncle
c. Father
d. Grandfather
e. None of these

18. Pointing to a lady, a man said, "The son of her only brother is the brother of my wife." How is the lady related to man?
a. Mother's sister
b. Grandmother
c. Mother-in-law
d. Sister-in-law
e. Maternal aunt

19. Pointing to a photograph, a lady tells Pramod, "I am the only daughter of this lady and her son is your maternal uncle." How is the speaker related to Pramod's father?
a. Sister-in-law
b. Wife
c. Either a or b
d. Nether a or b
e. Data inadequate

20. Pointing to a photograph a woman says "This man's son's sister is my mother-in-law" How is the woman's related to the man in this photograph?
a. Grandson
b. Son
c. Son-in-law
d. Nephew
e. None of these

21. A man pointing to photograph says, "The lady in the photograph is my nephew's maternal grandmother." How is the lady in the photograph related to the man's sister who has no other sister?

- a. Cousin
- b. Sister-in-law
- c. Mother
- d. Mother-in-law
- e. None of these



3-Symmetric Relations

This topic covers questions based on comparison of different factors like height, weight, age, wealth etc. For example if there is a comparison of age among 3 or more people, you will be asked to tell who is the youngest or oldest or who is older/younger than the other. Similar questions can be asked related to other factors.

Exercise-1

- Neelam is taller than Pushpa but not as tall as Manish. Rama is taller than Namita but not as tall as Pushpa. Who is the tallest?
a. Manish b. Pushpa c. Namita d. Rama
- If Ram is richer than Shyam, but not as rich as Mohan, then Shyam is?
a. Richer than Ram b. Richer than Mohan
c. Poorer than Mohan d. Neither richer nor poorer than Mohan
- A is taller than B but shorter than C. D is taller than A but shorter than C. E is taller than B but shorter than A. The tallest person is
a. B b. A c. D d. C
- Pava is bigger than Jabhli. Sarai is bigger than Chitpur. Rai is not as big as Saria but is bigger than Jabhli. Chitpur is not as big as Jabhli. Which is the smallest?
a. Jabhli b. Chitpur c. Rai d. Sarai
- Sudha is taller than Pushpa but shorter than Malti. Geeta is shorter than Vijay. Vijay is not as tall as Pushpa. Who would be in the middle if they stand in a row according to their height?
a. Sudha b. Pushpa c. Malti d. Geeta
- Rahim scored less marks than Mohan. Mohan scored less marks than John. Who scored the highest marks?
a. Rahim b. Mohan c. John d. None
- 5 boys appear in a test. Govind gets more marks than Surendra but less than Shiva. Virendra gets less than Mohan, who gets less than Surendra. Who got the maximum and the minimum marks respectively?
a. Shiva & Surendra b. Govind & Virendra
c. Shiva & Mohan d. Shiva & Virendra
- Arun runs faster than Elias but not as fast as Dinesh. Dinesh runs faster than Chander but not as fast as Bikram. Who runs the fastest?
a. Arun b. Dinesh c. Elias d. Bikram
- Rajiv is lighter than Hari. Shrikant is lighter than Shashi. Hari is lighter than Sashi. Which of the following four boys is the heaviest?
a. Shashi b. Hari c. Rajiv d. Shrikant
- Of the five villages, Phulwade is smaller than Dhanwade. Ambewade is bigger than Khelwade. Sonawade is bigger than Dhanwade but is not as big as Khelwade. Which is the biggest village?
a. Ambewade b. Phulwade c. Dhanwade d. Khelwade
- Of the five villages, Wadegoan is the smallest. Bhiwani is bigger than Jalgaon. Ramgarh is bigger than Mohegaon but is not as big as Jalgaon. Which is the biggest village?

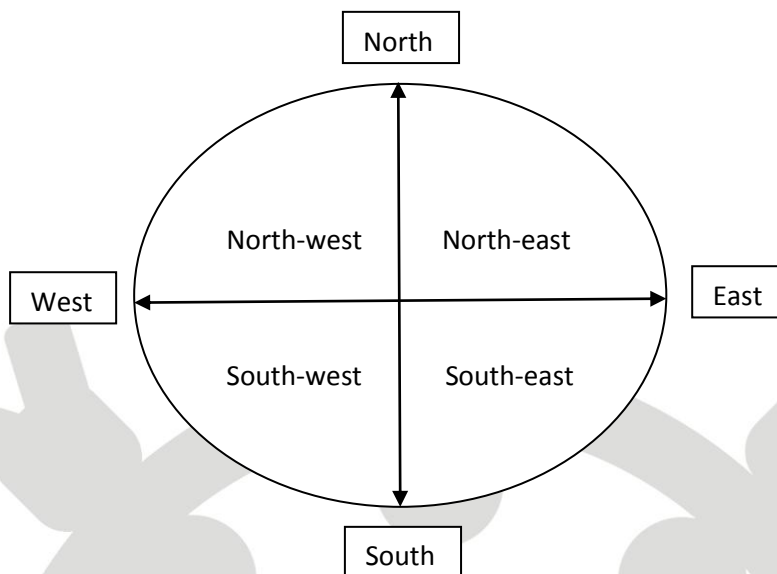
- a. Jalgaon b. Mohegaon c. Bhiwani d. Rampur
12. Out of the five friends, the age of Deepak is in the middle. Kamal is the youngest. Alka is older than Nayen. Mohan is younger as compared to Deepak and Deepak is younger as compared to Nayen. Who is the eldest?
- a. Alka b. Nayen c. Deepak d. Mohan
13. Five boys A, B, C, D, and E are sitting on a ladder. E is above A, C is below B, B is below A and D is above C. Who is at the bottom?
- a. A b. C c. E d. B
14. Ashok is heavier than Gopal, Mahesh is lighter than Jayesh. Prashant is heavier than Jayesh but lighter than Gopal. Who is the heaviest?
- a. Gopal b. Jayesh c. Prashant d. Ashok
15. Jayesh is taller than Mohan but shorter than Ashok: Shashi is taller than Mohan but shorter than Vijay. Who is the shortest?
- a. Jayesh b. Shashi c. Vijay d. Mohan
16. From the above statement who is tallest?
- a. Ashok b. Vijay
c. Ashok or Vijay d. Cannot be determined
17. Vikram is taller than Rajan but shorter than Annie. Jamal is taller than Annie. Sita is taller than Vikram. Rajan is shorter than Sita. Who is shortest?
- a. Sita b. Rajan c. Vikram d. None
18. Raghu is heavier than Prakash. Bala is heavier than Dilip. Ashok is heavier than Raghu. To determine who among them is the heaviest, which of the following further information, if any is required?
- a. No further information is required b. Ashok is heavier than Prakash
c. Prakash is heavier than Bala d. Dilip is lighter than Bala
19. Five students participated in a scholarship examination Sudha scored higher than Puja. Kavita scored lower than Suman but higher than Sudha. Mamta scored between Puja and Sudha. Who scored the lowest?
- a. Puja b. Kavita c. Mamta d. Sudha
20. Among the five friends, Aditya earns less Salary than Kanchan but more than Balram. Devendra earns more than Aditya but less than Subhash. Subhash earns more than Kanchan. Who earns the highest Salary?
- a. Subash b. Devendra
c. Kanchan d. Data inadequate
21. There are five friends Sachin, Kunal, Mohit, Anuj and Rohan. Sachin is shorter than Kunal but taller than Rohan. Mohit is the tallest. Anuj is a little shorter than Kunal and little taller than Sachin. Who is the shortest?
- a. Rohan b. Sachin c. Anuj d. Kunal
22. If they stand in their order of their heights, who will be in the middle?
- a. Kunal b. Rohan c. Sachin d. Anuj

Exercise-2

1. Ahmad is older than Hamid and Ravi is as old as Rakesh but Anand is younger than Shashi who is as old as Rakesh. If Hamid is older than Prakash, then who is the oldest and the youngest?
 - a. Ahmad and Rakesh
 - b. Ahmad and Ravi
 - c. Ahmad and Anand
 - d. Data inadequate
2. Riya is in the middle in the group of five friends on age rank. Kamla is the youngest. Alka is older than Narayan & Narayana is younger than Alka and Riya. Who is the oldest?
 - a. Kamla
 - b. Diksha
 - c. Alka
 - d. Incorrect Data
3. Reeta is more beautiful than Roopa but not as beautiful as Anita. Which of the following statements is not correct?
 - a. Roopa is the most beautiful girl
 - b. Anita is more beautiful than Roopa
 - c. Anita is the most beautiful girl
 - d. All of these
4. Shekhar is smaller than Neelam. Preeti is taller than Shekhar. Sudarshan is taller than Neelam but smaller than Heera. Neelam is taller than Preeti. If all of them are standing according to their heights who will be in the middle?
 - a. Shekhar
 - b. Neelam
 - c. Preeti
 - d. Heera
5. In a group of five districts Akbarpur is smaller than Fatehpur, Dhanbad is bigger than Palampur and Balrampur is bigger than Fatehpur but not as big as Palampur. Which district is the biggest?
 - a. Akbarpur
 - b. Fatehpur
 - c. Dhanbad
 - d. Palampur
6. Among six cities Dhulia is bigger than Ahmad Nagar. Rampur is bigger than Nasik. Jalgaon is not as big as Rampur but is bigger than Ahmad Nagar. Ahmad Nagar is smaller than Nasik but bigger than Faizabad. Which one is the smallest city?
 - a. Faizabad
 - b. Nasik
 - c. Ahmad Nagar
 - d. Jalgaon
7. Ahmad is taller than Salim, Salim is taller than Akbar. Sohan too is not as tall as Salim but taller than Akbar. Who is the smallest of all?
 - a. Ahmad
 - b. Salim
 - c. Akbar
 - d. Sohan
8. A, B, C, D and E are five tables. A is shorter than B but longer than E. C is the longest and D is a little shorter than B and a little longer than A. Which comes in the middle according to their size?
 - a. A
 - b. B
 - c. C
 - d. D
9. Five boys participated in a debate. Alok ranked higher than Suresh. Suresh ranked higher than Prakash. Alok ranked lower than Namita. Kabir's rank is between Alok and Suresh. Who is the highest in rank?
 - a. Namita
 - b. Alok
 - c. Suresh
 - d. Kabir
10. A cricket ball is lighter than the hockey ball and volley ball is lighter than football. Hockey ball is lighter than football, but heavier than tennis ball. Which of the following is the heaviest?
 - a. Hockey ball
 - b. Football
 - c. Volley ball
 - d. Tennis ball
11. The accused is more powerful than the dead. The police is less powerful than the court but more powerful than the lawyer. The accused bows his head in the presence of police. Who is the most powerful among them?
 - a. Police
 - b. Lawyer
 - c. Accused
 - d. Court
12. Hari is six months younger to Sita while Rahul is three months younger to Anita. When Sheena was born Rahul was two months old. Anita belongs to the age group of five while Hari belongs to the age group of six. Who is the oldest?
 - a. Rahul
 - b. Sita
 - c. Anita
 - d. Sheena

4-Directions

The direction chart given below is used in solving questions based on direction test.



Exercise-1

1. A man walks 20 meters towards North. He then turns left and walks 40 meters. He again turns left and walks 20 meters. Further he moves 20 meters after turning to the right. How far is he from starting position?
a. 20 meters b. 30 meters c. 50 meters d. 60 meters
2. Manav walked 25 meters towards south. Then he turned to his left and walked 20 meters. He then turned to his left and walked 25 meters. He again turned to his right and walked 15 meters. At what distance is he from starting point and in which directions?
a. 35 m east b. 35 m north c. 40 m east d. 60 m east
3. From his house, a man went 15 km to the north. Then he turned west and covered 10 kms. Then he turned south and covered 5 km. Finally, turning to the east he covered 10 kms. In which direction is he from his house?
a. East b. West c. North d. South
4. Rita moves 7 km towards east, then turned to her left and moved 5km. Then she turned to her left and moved 7 km. How far is she from starting point?
a. 12 b. 5 c. 2 d. 4
5. Vishal goes 10m to the east, then turns left and goes 5m. He turns left again and goes 10m and then again he turns left and goes 10m. In which direction is he from starting point?
a. North b. South c. East

Exercise-2

1. After starting from a point Rahul walks 4km towards east then turning to left moves 4km. After this he again turns left and moves 4km. In which direction is he facing now?
a. North b. South c. West d. East
2. A and B started from a fixed place. A moves 3km to the north and turns right, walks 4km. B moves towards west and walks 5km then turns to right and walks 3km. How far A is from B?
a. 2km b. 6km c. 9km d. 10km
3. If south-east becomes north and north-east becomes west and all the rest directions are changed in the same manner. Then what will be the direction for east?
a. North-east b. South c. North-west d. South-east
4. Shubham went 30 km to the north, then turning to the east he went 40k, then turning to the right he went 20km and then he turns to right again and went 40km. how far was he from starting point?
a. 10km b. 20km c. 5km d. 1km
5. Facing to the south a man turns in certain ways, which of the following turns will not lead him to the same side?
a. L,L,R,L,L,R b. L,L,L,R,R,R c. L,R,L,R,L,R d. R,L,R,L,R,L
6. A is in the north of B and c is in the west of B. In which direction is A with respect to C?
a. WEST b. NORTH-EAST c. EAST d. SOUTH
7. At 2p.m. the minute hand will point towards?
a. North b. North-west c. South d. West
8. Post office is in the east of the school. My house is in the south of the school. Market is in the north of the post office. In which direction si the post office with respect to my house?
a. North b. North-east c. North-west d. None of these
9. A,B,C,D,E and F are sitting ina circle. A is to the left of C, B is between A and E, F is between D and C. Who is to the left of B?
a. C b. D c. E d. A
10. Five books are kept on each other. E is above A, C is below B. If A is above B and D is below C, then which is at the top?
a. E b. D c. B d. A
11. A is standing facing the East. Which operation should he follow in order to be in the same direction?

- a. L,R,L,R,R,L,R b. L,L,R,R,L,L c. L,R,L,R,R,L d. None
12. If north becomes East what will be the changed direction for west?
- a. North b. North-east c. South d. East
13. Ravi moves 1k to the east and then turns to south and moves 5km. he again turns to east and walks 2km. After this he turns to north and moves 9km. What is his distance from the starting point?
- a. 5km b. 6km c. 3km d. 8km
14. Mohit is going towards the sun in the morning. While going he turns left, then again left, then right, then left, then finally turns to right. In which direction is he facing now?
- a. West b. North c. South d. North-east
15. A, B, C, D and E are in a row. B is between A and C, D is between C and E. Who is in the middle?
- a. B b. D c. A d. C

5-Coding-Decoding

Coding is a method of transmitting a message from one place to another by converting the original form to some other coded form.

Decoding is the ability to decipher a certain code.

In these types of questions, certain code values are assigned to a word or a group of words and you have to find out the original words.

Here are some useful points on the basic knowledge required for these tests.

1. **Forward Order of Letters**

A	B	C	D	E	F	G	H	I	J	K	L	M
1	2	3	4	5	6	7	8	9	10	11	12	13
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
14	15	16	17	18	19	20	21	22	23	24	25	26

2. **Reverse Order of Letters**

A	B	C	D	E	F	G	H	I	J	K	L	M
26	25	24	23	22	21	20	19	18	17	16	15	14
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
13	12	11	10	9	8	7	6	5	4	3	2	1

3. **Opposite Letters**

A-Z	B-Y	C-X	D-W	E-V	F-U	G-T	H-S	I-R	J-Q	K-P	L-O	M-N
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Exercise-1

- In a Military code Caution is coded as UACITNO. How will you write MISUNDERSTAND?
 - SIMUNEDSRAND
 - SIMNUEDSRATDN
 - SMIUNDERSTAND
 - None of these
- CALANDER is coded in a code as CLANADER. Find the code for CIRCULAR under the same rule?
 - LACANDER
 - CRIUCALR
 - CLANADER
 - None of these
- In a certain code language, CUL, WAP, DIR means red little box, SUT, MAD, BIX, means well-arranged pile, BIX, FAC, DIR means pile of boxes. The code for 'of' is?
 - FAC
 - SUT
 - DIR
 - BIX
- If STUDYING is written as RUTEXJMH. How will OTHER be written?

- a. TOHRE b. ROYHE c. NUGFQ d. None of these
5. In a code sign DRLAL is coded as 62014314. Play with CAMEL in the same way?
- a. 5315714 b. 35729310 c. 5313613 d. None of these
6. In a coded Language 256 means 'you are good' ,637 means 'We are bad' ,358 means 'good and bad' find the Code for ' and'.
- a. 2 b. 5 c. 8 d. 3
7. In a Code Language 35796 is written as 44887. Find the code for 46823.
- a. 55914 b. 57194 c. 55934 d. 22745
8. If TOUR is written as 1234, CLEAR is written as 56784 and SPARE is written as 90847, find the code for CARE.
- a. 1247 b. 4847 c. 5247 d. 5847
9. METAPHER is coded as EMATHPRE. How will you code NORMAL?
- a. ORMLAN b. ORNMLA c. ONMRLA d. None of these
10. If LIGHT is coded as GILTH, find the code for RAINY.
- a. IARYN b. ARINY c. NAIRY d. RINAY
11. KNOWLEDGE is coded as 256535475. How can GENERAL be coded
- a. 7549993 b. 7559913 c. 755591 d. 7555913
12. In a certain code Language BEAT is coded as GIDV. What is the code of SOUP?
- a. XSXR b. XSSP c. XXXR d. WXYR
13. If TOM = 48 and DICK = 27. Find the value of CATTLE?
- a. 93 b. 61 c. 91 d. 65
14. If BOY is coded as ACNPXZ. What will be the code for LIFE?
- a. KMHJEGDF b. LMGHEGDF c. LMHJGEFD d. None of these
15. If SISTER is coded as 535301, UNCLE is coded as 84670 and BOY is coded as 129. Find the code word SON?
- a. 524 b. 923 c. 872 d. 361
16. If HARD means 1357 and SOFT means 2468, what does 21448 stand for
- a. SCHOOL b. SHOOT c. SHOOT d. None of these
17. In a certain Language if A is written as 2, B as 4 and C as 6 what do the figure 12, 10, 10, 8 stands for?

- a. DEEP b. DOOR c. DEER d. FEED
18. If DUST is called AIR, AIR is called FIRE, FIRE is called WATER, Water is called COLOUR, COLOUR is called RAIN and RAIN is called DUST, then Where do fish live?
- a. COLOUR b. DUST c. WATER d. FIRE
19. In a certain code Language 134 means 'good and tasty' ,478 means 'See good picture',729 means 'Picture are faint '.Which number has been used here for 'faint '?
- a. 9 b. 2 c. Data inadequate d. 7
20. In a code Language COME is coded as XLNV. Find the Code for CAT?
- a. XZG b. CMW c. YMN d. XWG
21. In a certain code PAN = 31 and PAR =35.What code do you suggest for CAR?
- a. 24 b. 22 c. 24 d. 35
22. If ANOTHER is coded as 7309521, then THORN will be coded as:
- a. 95103 b. 95313 c. 95013 d. None of these
23. IF HIM means 936, and CAM means 39 What Will be the code for MAP?
- a. 98 b. 114 c. 40 d. 208

Exercise-2

Direction (Q. No .1-3): In a way of coding COME AT ONCE FAHTER VERY ILL is coded as XLNV ZG LMXV UZGSVI EVIB ROO. In the same way of coding, find the code for the following question.

1 MEHMOOD

- a. NVSNLMV b. NWSNLLW c. NVSNLLW d. NVSNLX

2 TELEPHONE

- a. GVOVKSLMU b. GVOVSLMV c. GUOUKSLMU d. GVOVKSLMV

3 MOTHER

- a. NOGSVI b. NOTSVI c. NLGSVI d. NLGSVT

Direction: Solve each of the following questions as per the best of your Judgment.

4 IF RITISH is WNYJXM, then DAXMTNO?

- a. IFCRYST b. IFCRZST c. ICERYST d. ACFRYSU

5 IF PEZON =LAVKJ, then MAHESH =?

- a. IWEAOD b. IVEAOD c. IWDAOD d. IWDZO

6 IF LOVE is coded as 27, What should be the code for HATE?

- a. 18 b. 19 c. 17 d. 34

7 IF LOGIC is written as BHFNK. How will CLERK be written as?

- a. JQDKB b. GBKJA c. LPRTU d. XVRPA

8 In a certain Language HIMACHAL is written as JKOCEJCN. How would ORISSA be Written in that Language?

- a. QTKUUC b. QTKUPC c. QTKUVC d. QTKPUC

9 If SHIVA is coded as XDNRF, then how will NIKHIL be coded in that code?

- a. SEPDNH b. SEPENH c. SEPDMH d. SEPDND

10 If HNOPTV =FKKKNO, then ENGLISH =?

- a. CKCGCLY b. CKCGCLZ c. CKCGDLZ d. DIDHCLZ

11 If MONKEY =13151411525, than DONKEY =?

- a. 415141525 b. 515141115225 c. 4151411525 d. 4151411522
- 12 PIC VIC NIC' means 'winter is cold 'To NIC ARE' means 'summer is hot 'and ARE THO PA means 'nights are hot' .Which of the following is coded for 'summer'?
- a. TO b. NIC c. PIC d. VIC
- 13 If DILIP =20, MANISHA =28, then AKHILESH =?
- a. 32 b. 8 c. 16 d. 42
- 14 If CONSTABLE is coded as 91, which of the following will be the number code for the word INSPECTOR?
- a. 118 b. 117 c. 120 d. 119
- 15 If VIKRAM = IVRKMA, then SUSHMITA =?
- a. UTHSHMAT b. USITJNAT c. SUHSIMAT d. USHSIMAT
- 16 If 'My papa is great' is coded as 6934 'Papas are always great is coded as 2987 'is are always is coded as '328' What is the code for the word 'Papa'?
- a. 3 b. 4 c. 6 d. Data inadequate
- 17 If COMPARTMENT =ACEMMNOPRTT, then COMPETITON =?
- a. CEIIMNOOPTT b. CEIIMMONPTT c. CEIMNPPOTI d. CEINMOOPTT
- 18 If HOSPITAL = QFYNUXTM, then PATIENT =?
- a. YSJNYGU b. UFYNJSU c. YSJNYFU d. YSJNZFV
- 19 If the code for the word SLFHV is HOUSE, then HGIVVG would be the code for
- a. AMANAT b. STREET c. TODLER d. ANUPAM
- 20 If 'hurry' is coded as 'gtqqx' in a code language, then which particular word would have been coded as 'rsno'?
- a. Qrmn b. sopt c. stop d. qmn
- 21 In a certain code language 'GEETA IS GOOD' is written as 'sin quo min'. AL GOOD ARE GEETA is Written as 'sin bin muo min ',.What is the code for the word 'Is'
- a. sin b. min c. bin d. quo
- 22 In a certain code Language 931 Means 'College love good ' , 536 means you are good and 359 means love are good which digit stand for 'love' in this Language?
- a. 9 b. 3 c. 5 d. 1
- 23 If DAMINI = JOINBE, then SUGAR is written as

- a. SBGVT b. SBHVT c. TBGVT d. SBHWT
- 24 If PATNA = ZMSZO ,then BIHAR will be coded as
- a. QZHGA b. QZGBHB c. QZGHA d. PZGHA
- 25 If NEELU is QJIRB, than VISHU will be coded as what?
- a. ZMBNB b. YMXNB c. YMYNB d. YMXNC
- 26 If NAMITA is RDOMWC, then JEEVAN =?
- a. NHGZDP b. NHGADP c. NHGZEP d. MHGZDP
- 27 If DEEWANA is WVVDZMZ, then, GAMBLER =?
- a. TZNYOVI b. TZNYOVJ c. TZNYO d. None of these
- 28 If THREAD is coded as ZWANDP ,then WPEIO would be the code for
- a. PMITA b. PMIUA c. SMITA d. None of these
- 29 If MEENU is coded as BTJIP, then which of the following would be the code for KAMINI?
- a. QUOREM b. QUORFN c. PVOREN d. None of these

6-Number Series

A series is a sequence of numbers obtained by some predefined rules and by that predefined rules; it is possible to find out the next term of the series.

A series can be created in many ways. So to solve any question based on series, it is not possible to create a generic approach. However a basic understanding of the way using which a series is created is helpful in solving such questions. Depending upon the logic applied for creating the series, they can be classified as follows:

Direct Series: A direct series is that in which any term is found by performing a certain operation on the previous term. AP, GP are some examples of direct series.

Example: 101, 95, 89, 83, 77,

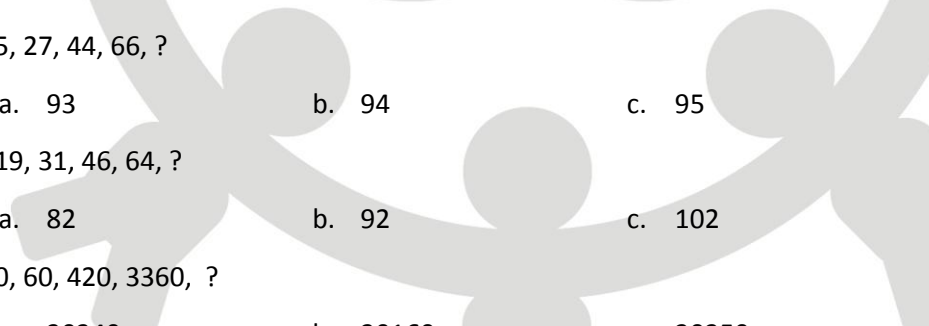
Indirect Series: An indirect series is a series which is derived using another series. Such series are created by performing a set of operations on some standard series.

Example: 1, 4, 9, 16, ...

Twin Series: A twin series is that which is made by clubbing of two series. Generally in such series alternative terms, i.e. odd terms & even terms form independent series.

Example: 1, 3, 5, 1, 9, -1, 13, -3, ...

Exercise

- 

1. 380, 188, 92, 44, 20, 8, ?
a. 1 b. 2 c. 3 d. 4

2. 8, 15, 27, 44, 66, ?
a. 93 b. 94 c. 95 d. 103

3. 10, 19, 31, 46, 64, ?
a. 82 b. 92 c. 102 d. 85

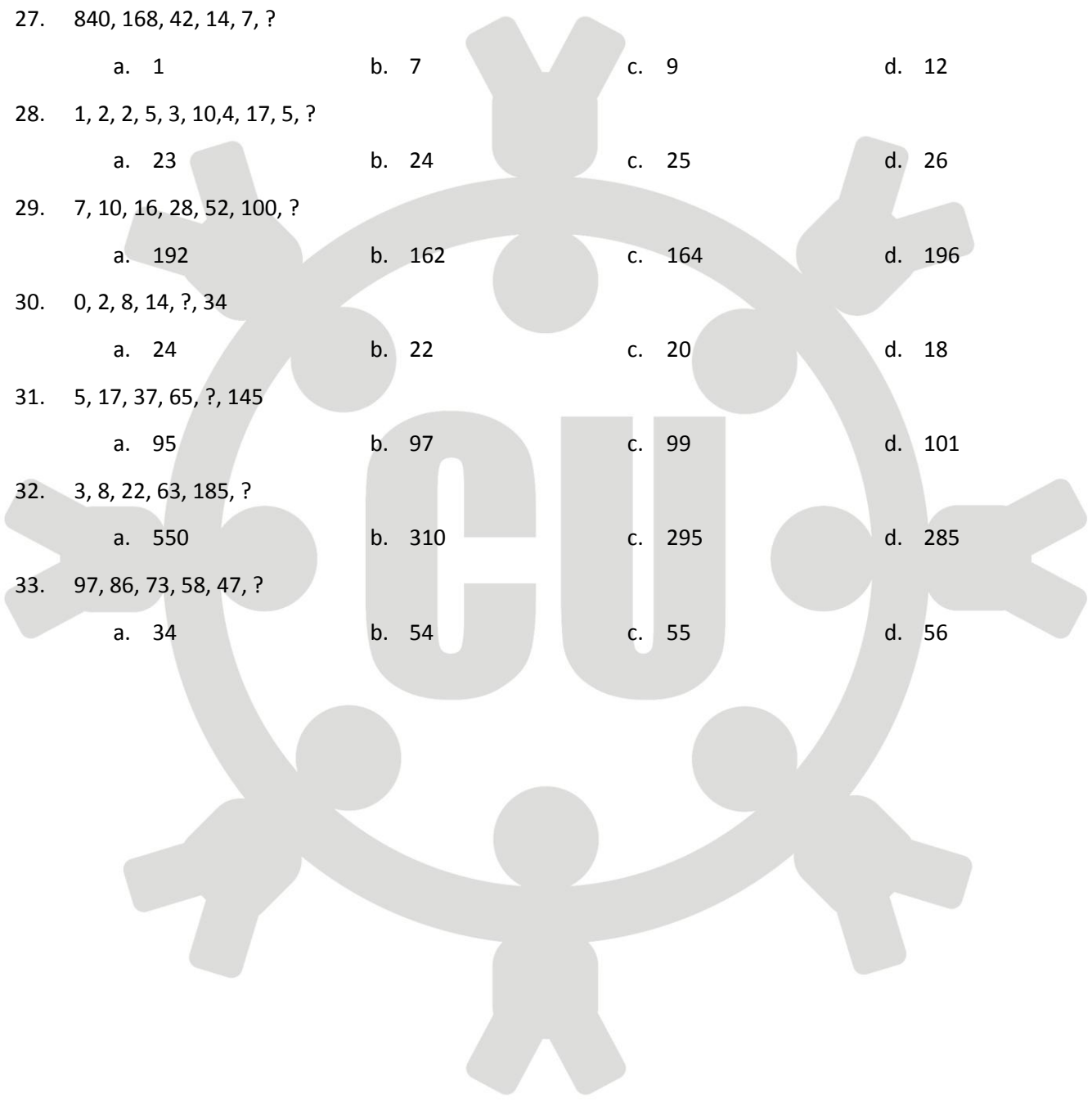
4. 2, 10, 60, 420, 3360, ?
a. 30240 b. 20160 c. 20250 d. 30340

5. 8, 16, 14, 28, 26, 52, 50, ?
a. 92 b. 98 c. 100 d. 89

6. 1, 2, 2, 5, 3
10, 4, 17, 5, ?
a. 24 b. 25 c. 26 d. 27

7. 1, 6, 9, 14, 17, ?
a. 24 b. 22 c. 21 d. None

8. 1, 4, 9, 16, 25, ?
a. 28 b. 36 c. 48 d. 49
9. 8, 24, 12, ?, 18, 54, ?
a. 28 b. 36 c. 46 d. 38
10. 260, 216, 128, 108, 62, 54, ?, 27
a. 39 b. 49 c. 29 d. 19
11. 28, 33, 31, 36, 34, ?
a. 36 b. 37 c. 38 d. 39
12. 5, 6, 10, 19, ?, 60
a. 35 b. 24 c. 25 d. 45
13. 6, 9, 18, 21, 42, 45, ?, ?
a. 80, 85 b. 90, 93 c. 80, 87 d. 88, 93
14. 2, 7, 24, 77, ?
a. 238 b. 138 c. 338 d. 438
15. 20, 19, 17, ?, 10, 5
a. 12 b. 13 c. 14 d. 15
16. 1, 6, 13, 22, 33, ?
a. 44 b. 45 c. 46 d. 47
17. 3, 9, 27, 81, ?
a. 324 b. 243 c. 210 d. 162
18. 2, 5, 9, ?, 20, 27
a. 14 b. 16 c. 18 d. 24
19. 19, 2, 38, 3, 144, ?
a. 228 b. 256 c. 352 d. 456
20. 3, 6, 18, 72, ?
a. 144 b. 216 c. 280 d. 360
21. 2, 3, 8, 63, ?
a. 1038 b. 3968 c. 1998 d. 3008
22. 12, 32, 72, 152, ?
a. 312 b. 325 c. 515 d. 613
23. 4, 10, ?, 82, 244, 730
a. 24 b. 28 c. 77 d. 218
24. 2, 5, 9, 19, 37, ?

- 
- a. 76 b. 75 c. 74 d. 72
25. 1, 4, 2, 8, 6, 24, 22, 88, ?
a. 86 b. 90 c. 154 d. 352
26. 11, 12, 17, 18, 23, 24, ?
a. 12 b. 29 c. 30 d. 35
27. 840, 168, 42, 14, 7, ?
a. 1 b. 7 c. 9 d. 12
28. 1, 2, 2, 5, 3, 10, 4, 17, 5, ?
a. 23 b. 24 c. 25 d. 26
29. 7, 10, 16, 28, 52, 100, ?
a. 192 b. 162 c. 164 d. 196
30. 0, 2, 8, 14, ?, 34
a. 24 b. 22 c. 20 d. 18
31. 5, 17, 37, 65, ?, 145
a. 95 b. 97 c. 99 d. 101
32. 3, 8, 22, 63, 185, ?
a. 550 b. 310 c. 295 d. 285
33. 97, 86, 73, 58, 47, ?
a. 34 b. 54 c. 55 d. 56

7-Alphabetic Series

A series is a sequence of numbers obtained by some predefined rules and by that predefined rules; it is possible to find out the next term of the series.

A series can be created in many ways. So to solve any question based on series, it is not possible to create a generic approach. However a basic understanding of the way using which a series is created is helpful in solving such questions.

The numbers are replaced by alphabets and the operations to be done are same as in case of number series.

Example: A, C, E, G, I,

Example: AC, EG, IK, MO,....

Directions for questions 1–14: Select from the answer choices an appropriate term to replace the question mark (?) and continue the sequence of the series.

1. A, P, C, Q, E, R, G?

a. S

b. H

c. I

d. T

2. C, L, E, M, G, N, I?

a. J

b. K

c. P

d. O

3. Z, X, U, Q, L,?

a. K

b. I

c. F

d. G

4. H, J, M, O, R, T,?

a. W

b. S

c. U

d. V

5. B, D, G, K, M, P,?

a. Q

b. R

c. T

d. S

6. G, J, M, P, S, V,?

a. W

b. Z

c. X

d. Y

7. F, L, Q, U, X,?

a. B

b. Z

c. Y

d. A

8. Z, T, O, K, H, ?

a. G

b. F

c. E

d. C

9. C, E, H, L, Q,?
a. W b. D c. N d. X
10. H, V, G, T, F, R, E, P, ?, ?
a. N, D b. M, E c. D, N d. E, M
11. KPA, LQB, MRC, NSD, ?
a. OTE b. PTE c. NST d. DMO
12. FAG, HEI, JIK, LMM, ?
a. NUO b. NQU c. NQO d. D. OQO
13. ABA, EDE, IFI, ?
a. NHN b. MHM c. HMM d. KIK
14. ADG, EHK, ILO, ?
a. MPS b. UPS c. CPU d. SMS
15. a_bb_a_bb_
a. Bbba b. Abab c. baba d. abaa
16. aba_aba_aba_aba_
a. bbbb b. abab c. bbba d. abba
17. bb_ab_ba_bb_bb_a
a. aaaab b. babab c. bbbab d. baaba
18. a_bbba_baa_b
a. aba b. aab c. abb d. bab
19. a_bbc_aab_cca_bbcc
a. bacb b. acba c. abba d. caba
20. ccbb_aa_cc_bbbbaa_c
a. acbc b. baba c. acba d. baca
21. aab_ab_cabcca_bcab_c
a. bbbc b. bbab c. cabc d. cbab

8-Alpha series & Number Ranking

This chapter gives illustrations of the various types of question based on alpha series & number ranking as you have covered in coding-decoding. You will also find guidelines for attempting such questions in the shortest possible time with the use of some formulas as given below:

- a) $L + R$
- b) $L - L$
- c) $R - R$
- d) $R + L$

Where, R stands for position from Right hand side & L stands for position from Left hand side.

Exercise

1. What will be the 12th letter to the right of 10th from left side?
a. V b. W c. U d. X
2. What will be the 9th letter to the left of 16th from right side?
a. A b. C c. B d. D
3. What will be the 18th letter from the left if 1st half of the series is reversed?
a. R b. S c. C d. Q
4. What will be the 13th letter from right side if 1st half of series is reversed?
a. M b. O c. N d. A
5. What will be 16th letter from left side if 2nd half is written in reversed order?
a. W b. X c. V d. U
6. Which alphabet will be mid-way b/w 7th & 11th letter counting from left end of the normal alphabet?
a. G b. I c. H d. M
7. Which alphabet will be the mid-way b/w 17th & 5th letter from right end of normal alphabet?
a. K b. P c. Q d. R
8. Which alphabet will be mid-way b/w 8th & 11th letter counting from the left end of normal alphabet?
a. I b. H c. J d. No such letter
9. Which letter is 5th to the left of 7th to the right of 12th letter from the right?

- a. Z b. Q c. D d. R
10. How many pairs of letters are there in the given words which have as many letter b/w them in the word as in the alphabet-> CREATIVE
- a. 1 b. 2 c. 3 d. 4
11. How many pairs of letters are there in the given words which have as many letter b/w them in the word as in the alphabet-> DONATE
- a. 1 b. 2 c. 3 d. 4
12. If every alternate letter starting from B is deleted from the given alphabet, which of the following will be 10th letter from the right end?
- a. G b. D c. Q d. H
13. A meaningful word starting from A is made from 1st, 2nd, 4th, 5th & 6th letters of the word CONTRACT. Which of the following is middle letter of the word?
- a. C b. O c. R d. T
14. If possible to make a meaningful word from 2nd, 5th, 10th & 12th letters of the word METROPOLITAN, which is 3rd letter of the word? If no such word can be made, X is answer. If more than one word formed, give M as answer.
- a. Q b. T c. X d. M
15. Make a meaningful word from 2nd, 5th, 8th letter of the word CARETAKER. Which will be the 1st letter of that word? If no such word can be made, give X as answer. If more than one such word formed, give M as an answer
- a. E b. T c. X d. M
- 16-17.** Attempt the questions given below on the basis of given series
7 8 9 7 6 5 3 4 2 8 9 7 2 4 5 9 2 9 7 6 4 7
16. How many 7's are preceded by 9 & followed by 6
- a. 2 b. 3 c. 4 d. 6
17. Which figures have equal frequency?
- a. 253 b. 245 c. 375 d. 865
- 18-20.** 5 14 7 3 9 8 5 7 2 6 3 1 5 8 6 3 8 5 2 2 4 3 4 9 6
18. How many odd numbers are there in the sequence which is immediately followed by an odd number?
- a. 1 b. 2 c. 3 d. More than 4
19. How many even numbers are there in the sequence which are immediately preceded by an odd number & immediately followed by an even number?

a. 1

b. 2

c. 3

d. 4

20. How many odd numbers are there in the sequence which are immediately preceded & also immediately followed by an even number?

a. 1

b. 2

c. 3

d. 4



9-Matrix

In this type of questions, candidates have to check the missing term in the MATRIX given by using some relation in all the rows & the columns. The relation should be followed in all the rows & columns necessarily. It's basically a check of one's ability to understand the given relation & using logics to establish the same relation in the missing term.

DIRECTIONS: Find the Value of 'X' or '?' in each Matrix from the choice given below.

1.

4	11	18
25	32	39
46	X	60

- a. 56 b. 53
c. 63 d. 51

2.

79	90	102
115	X	144
160	177	195

- a. 157 b. 131
c. 129 d. 133

3.

110	150	70
70	110	30
X	70	-10

- a. 20 b. 30
c. 40 d. 70

4.

701	722	764
501	522	564
X	376	418

- a. 352 b. 353

- c. 364 d. 355

5.

X	GI	IK
BD	DF	FH
CE	EF	GI

- a. CG b. CO
c. EI d. EG

6.

15	35	20
35	X	15
20	15	35

- a. 20 b. 25
c. 15 d. 35

7.

AZ	DW	GT
BY	EV	HS
CX	X	IR

- a. FV b. FG
c. FR d. FU

8.

352	342	327
382	372	X
412	402	387

- a. 377 b. 376
c. 357 d. 387

9.

710	730	760
690	X	740
X2	680	710

- a. 710, 660 b. 700, 680
c. 780, 690 d. 660, 700

10.

6	9	54
11	X	110
17	11	187

- a. 9 b. 10
c. 12 d. 17

11.

12	36	144
15	60	300
18	X	540

- a. 80 b. 72
c. 90 d. 110

12.

336	42	6
X	30	5
330	55	4

- a. 150 b. 210
c. 330 d. None

13.

1	4	9
4	9	16
X	16	25

- a. 7 b. 11
c. 8 d. 9

14.

9	16	25
36	X	X
144	256	400

- a. 64, 100 b. 84, 144
c. 210, 110 d. None

15.

0	3	8
15	24	35
48	X	80

- a. 64 b. 63
c. 66 d. 84

16.

A	D	I
K	P	Y
?	I	P

- a. I b. D
c. E d. Y

17.

6	8	9
14	2	7

3	?	7
---	---	---

- a. 12 b. 16
c. 24 d. 70

- a. 13 b. 11
c. 17 d. 7

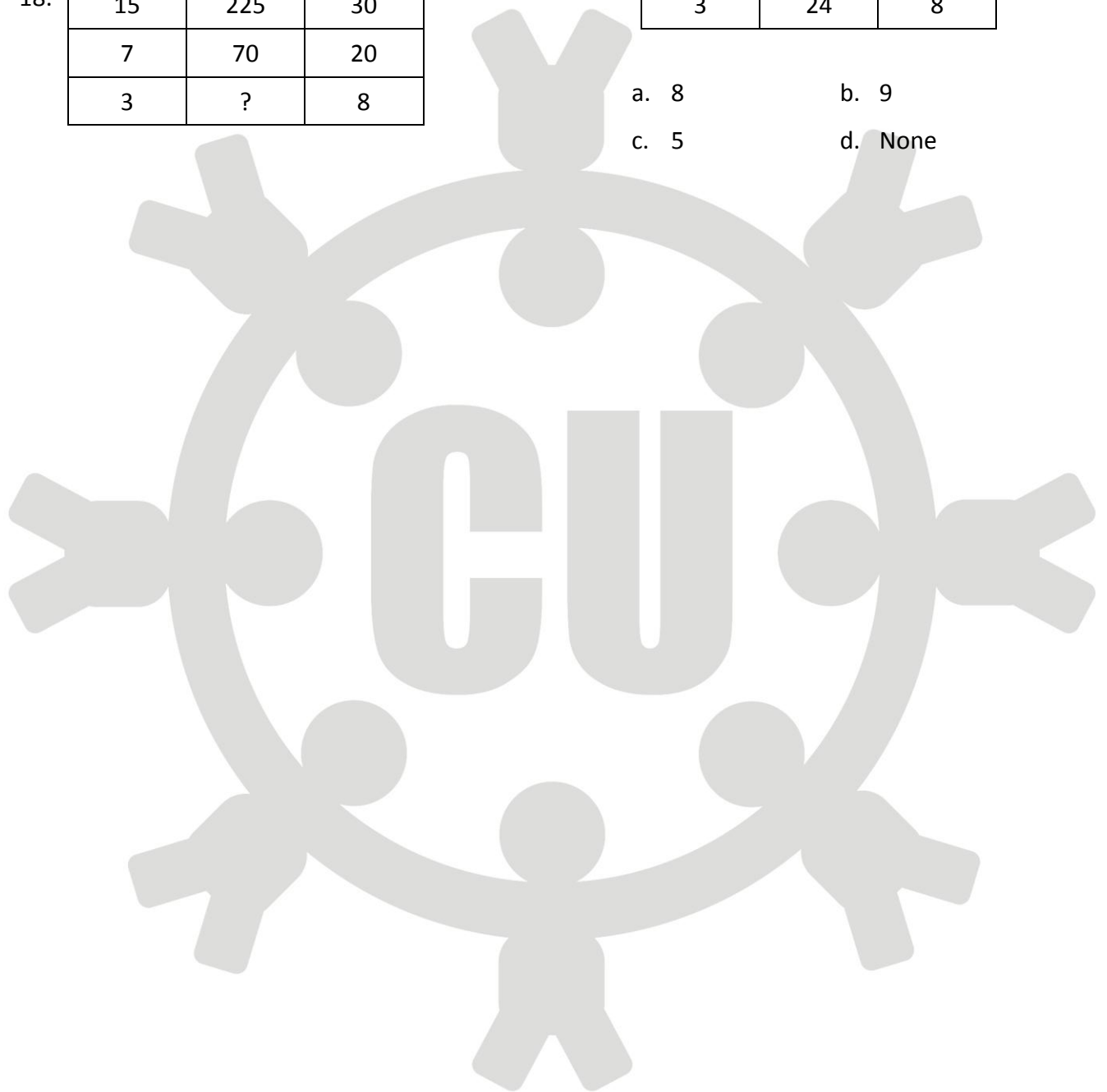
18.

15	225	30
7	70	20
3	?	8

19.

4	32	?
7	56	8
3	24	8

- a. 8 b. 9
c. 5 d. None



10-Odd One Out

In this chapter, you are given a group of certain items, out of which all except one are similar to one another in some manner. The candidate is required to choose this one item which does not fit into the given group

Example:

a) 2

b) 5

c) 6

d) 7

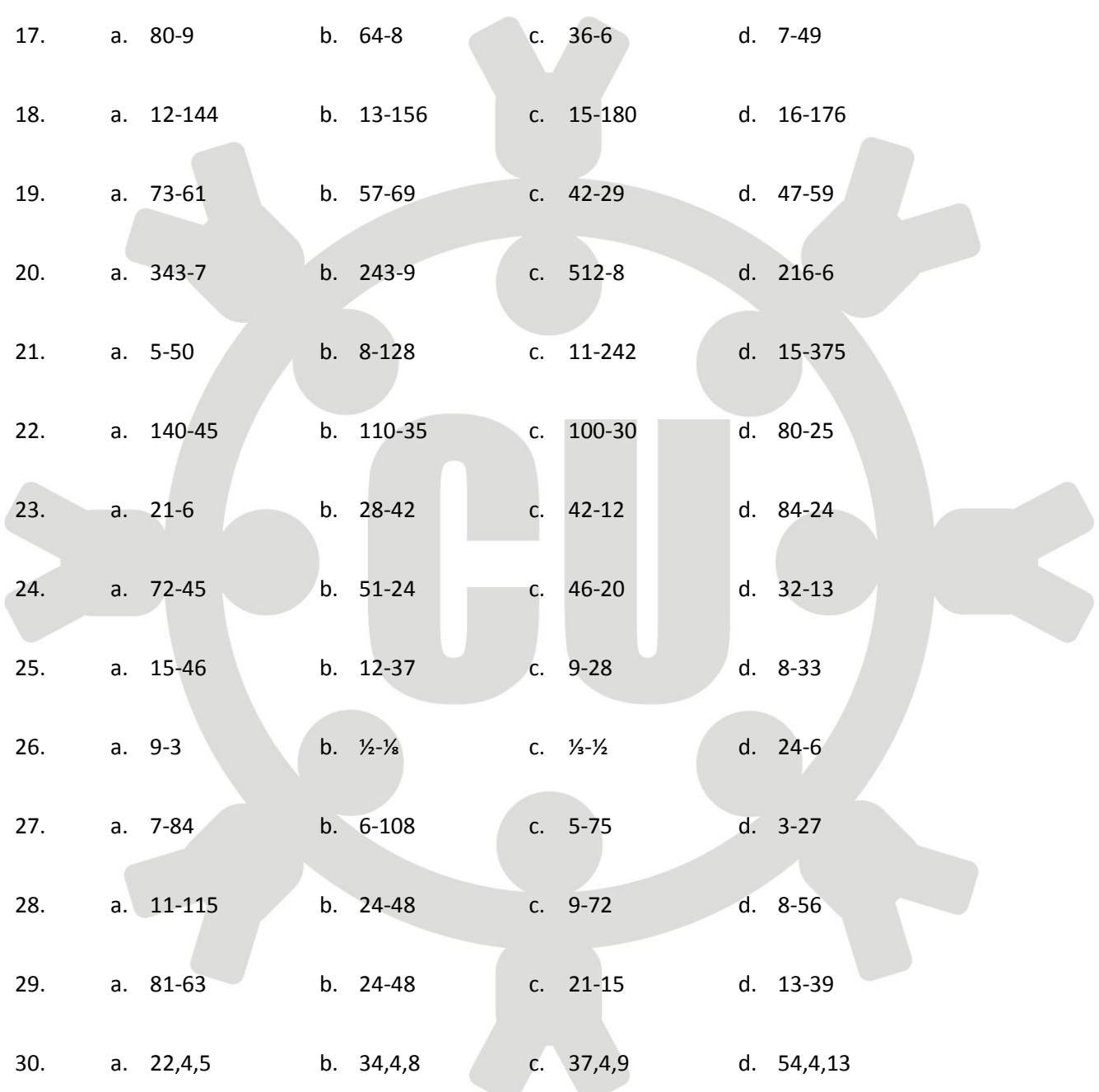
Answer: 6

Because, all except 6 are prime numbers.

Exercise

Direction: choose the one which is different from the rest four.

1. a. 10 b. 26 c. 24 d. 21 e. 18
2. a. 15 b. 21 c. 24 d. 28 e. 30
3. a. 324 b. 244 c. 136 d. 352 e. 514
4. a. 27 b. 125 c. 343 d. 729 e. 1321
5. a. 2384 b. 4592 c. 3756 d. 4298 e. 3629
6. a. 325 b. 236 c. 178 d. 639 e. 538
7. a. 7487 b. 5963 c. 8218 d. 6596 e. 9259
8. a. 372164 b. 376821 c. 318951 d. 319446 e. 387315
9. a. 37 b. 15 c. 132 d. 154
10. a. 144 b. 168 c. 196 d. 256
11. a. 140 b. 240 c. 360 d. 480
12. a. 2345 b. 3456 c. 5467 d. 5678
13. a. 2468 b. 3648 c. 4826 d. 6482

- 
14. a. 9611 b. 7324 c. 2690 d. 1754
15. a. 72 b. 15 c. 31 d. 57
16. a. 95-82 b. 69-57 c. 55-42 d. 48-34
17. a. 80-9 b. 64-8 c. 36-6 d. 7-49
18. a. 12-144 b. 13-156 c. 15-180 d. 16-176
19. a. 73-61 b. 57-69 c. 42-29 d. 47-59
20. a. 343-7 b. 243-9 c. 512-8 d. 216-6
21. a. 5-50 b. 8-128 c. 11-242 d. 15-375
22. a. 140-45 b. 110-35 c. 100-30 d. 80-25
23. a. 21-6 b. 28-42 c. 42-12 d. 84-24
24. a. 72-45 b. 51-24 c. 46-20 d. 32-13
25. a. 15-46 b. 12-37 c. 9-28 d. 8-33
26. a. 9-3 b. $\frac{1}{2}$ - $\frac{1}{8}$ c. $\frac{1}{3}$ - $\frac{1}{2}$ d. 24-6
27. a. 7-84 b. 6-108 c. 5-75 d. 3-27
28. a. 11-115 b. 24-48 c. 9-72 d. 8-56
29. a. 81-63 b. 24-48 c. 21-15 d. 13-39
30. a. 22,4,5 b. 34,4,8 c. 37,4,9 d. 54,4,13

11-Calendars

In this chapter we are supposed to find the day of the week on a given date.

For this, we use the concept of *odd days*.

1. **Odd Days:** In a given period, the number of days more than the complete weeks is called odd days.

2. **Leap Year:**

- Every year divisible by 4 is a leap year, if it is not a century.
- Every 4th century is a leap year & no other century is a leap year.

Note: A leap year has 366 days

Examples:

- Each of the years 1948, 2004, 1676 etc. is a leap year
- Each of the years 400, 800, 1200, 1600 etc. is a leap year
- None of the years 2110, 2002, 2003, 2005, 2100 is a leap year

3. **Ordinary Year:** The year which is not a leap year is called an ordinary year. An ordinary has 365 days.

4. **Counting of Odd Days:**

- 1 ordinary year = 365 days = 52 weeks + 1 day, thus an ordinary year has 1 odd day
- 1 leap year = 366 days = 52 weeks + 2 days, thus leap year has 2 odd days
- 100 years = 76 ordinary years + 24 leap years
= $(76 \times 1 + 24 \times 2)$ odd days = 124 odd days
= 17 weeks + 5 days
- Number of odd days in 100 years = 5
- Number of odd days in 200 years = $(5 \times 2) = 3$ odd days
- Number of odd days in 300 years = $(5 \times 3) = 1$ odd day
- Number of odd days in 400 years = $(5 \times 4 + 1) = 0$ odd day
- Similarly, each one of 400, 800, 1200, 1600, 2000 years etc. has 0 odd day.

5. **Day of the week related to Odd Days:**

No. of days	0	1	2	3	4	5	6
Day	Sun	Mon	Tue	Wed	Thurs	Fri	Sat

Exercise

1. If the 3rd date of month is Sunday. Then what date will be 2 days after the 4th Wednesday in the month
a. 27 b. 28 c. 29 d. 30
2. Satish remembers that his brother's b'day is after 15th but before 18th of Feb. Whereas his sister Kajal remembers that her brother's b'day is after 16th & before 19th of Feb. On which date in Feb., is Satish brother's b'day?
a. 16th b. 17th c. 18th d. 19th
3. If the 7th day of the month is 3 days earlier than Friday. What day will be on the 19th date of the month?
a. Sunday b. Monday c. Wednesday d. Friday
4. If it was Saturday on 17th December 1982, what will be the day on 22nd December 1984

- a. Sunday b. Monday c. Wednesday d. Friday
5. If the day before yesterday was Saturday. What day will fall on the day after tomorrow
- a. Sunday b. Monday c. Wednesday d. Friday
6. Mohini went to movie 9 days ago. She goes to movies only on Thursday. What day of the week is today
- a. Sunday b. Saturday c. Wednesday d. Friday
7. If the 3rd day of month is Monday, which of the following will be 5th day from 21st of that month
- a. Sunday b. Saturday c. Wednesday d. Friday
8. 1-12-1991 is the 1st Sunday. Which is the 4th Tuesday of December 91
- a. 17-12-91 b. 24-12-91 c. 26-12-91 d. 31-12-91
9. If 25th august in a year is Thursday, then the no of Monday in that month is
- a. 3 b. 4 c. 5 d. 6
10. If 1st October is Sunday, then 1st November will be
- a. Sunday b. Saturday c. Wednesday d. Friday
11. What was the day of the week on 15th Aug 1947
- a. Sunday b. Saturday c. Wednesday d. Friday
12. What was the day of the week on 4th June 2002
- a. Tuesday b. Saturday c. Wednesday d. Friday

12-Seating Arrangement & Puzzle Solving

This section of Analytical reasoning comprises of questions put in the form of puzzles involving certain number of items, be it persons or things. The candidate is required to analyze the given information, condense it in a suitable form & answer the questions asked.

The questions on puzzle test may be of any of the following types

1. Classification type questions
2. Seating/placing arrangements
3. Comparison type questions
4. Sequential order of things
5. Selection based on given conditions
6. Family based problems
7. Jumbled problems

Directions (Ques. 1-5):- Read the flowing information's carefully and answer the questions given below:

Six persons A, B, C, D, E and F are sitting in two rows, three in each.

- E is not at the end of any row.
- D is second to the left of F.
- C, the neighbor of E, is setting diagonally opposite to D.
- B is the neighbor of F.

1. Which of the following are sitting diagonally opposite to each other?
 - a. F and C
 - b. D and A
 - c. A and C
 - d. A and F
 - e. A and B
2. Who is facing B?
 - a. A
 - b. C
 - c. D
 - d. E
 - e. F
3. Which of the following are in the same row?
 - a. A and E
 - b. E and D
 - c. C and B
 - d. A and B
 - e. D and A
4. Which of the following are in one of the two rows?
 - a. FBC
 - b. CEF
 - c. DBF
 - d. AEF
 - e. ABF
5. After interchanging seat with E, who will be the neighbored of D in the new position?
 - a. C and A
 - b. F and B
 - c. Only A
 - d. Only C

Directions (Ques. 6-7):- Read the following information and answer the questions that follow:

Six friends A, B, C, D, E and F are sitting in a closed circle facing the center.

- E is to the Left of D.
- C is between E and B.
- F is between D and A.

6. Who is to the Left of B?

- a. A b. C c. D d. E e. None of these

7. Who is to the right of C?

- a. A b. B c. D d. E e. F

Directions (Ques. 8-9):- Read the following information carefully and answer the question given below it:

- There are five friends.
- They are standing in a row facing south.
- Jayesh is to the immediate right of Alok.
- Pramod is between Bhagat and Subodh.
- Subodh is between Jayesh and Pramod.

8. Who is in at the extreme Left end?

- a. Alok b. Bhagat c. Subodh
d. Data inadequate e. None of these

9. Who is in the middle?

- a. Bhagat b. Jayesh c. Pramod
d. Subodh e. Alok

Directions (Ques. 10-13):- Study the given information carefully and answer the questions that follow:-

- A, B, C, D, E, F and G are sitting on a wall and all of them are facing east.
- C is on the immediate right of D.
- B is at an extreme end and has E as his neighbor.
- G is between E and F
- D is third from the South end

10. Who is sitting to the right to E?

- a. A b. C c. D d. F e. None of these

11. Which of the following Pairs of people are sitting at extreme ends?

- a. AB b. AE c. CB
d. CB e. Cannot be determined

12. Name the persons who should change place with C such that he gets the third place from the north end:

- a. E b. F c. G d. C e. D

13. Immediately between which of following Pairs of people is D sitting?

- a. AC b. AF c. CE d. CF e. None of these

Directions (14-18):- A training college has to conduct a refresher course for teacher of seven different subjects- Mechanics, psychology, philosophy, and sociology, Economics, Science and Engineering from 22nd July to 29th July.

- Course should start with psychology
- 23rd July, being Sunday, should be holiday.
- Science subject should be on the previous day of the engineering subject.
- Course should end with mechanics subject.
- Philosophy should be immediately after the holiday.
- There should be a gap of one day between economics and engineering.
- Sociology is on Friday.

14. The refresher courses will which one of the following subjects?

- a. Psychology b. Mechanics c. Philosophy
d. Economics e. None of these

15. Which subject will be on Tuesday?

- a. Mechanics b. Engineering c. Economics
d. Psychology e. None of these

16. Which subject precedes mechanics?

- a. Economics b. Engineering c. Philosophy
d. Psychology e. None of these

17. How many days gap is there between science and philosophy?

- a. 1 b. 2 c. 3 d. No Gap e. None of these

18. Which subject is followed by Science?

- a. Engineering b. Psychology c. Philosophy
d. Economics e. None of these

Directions (questions 19-23):-Read the following information carefully and answer the questions that follow:

- P, Q, R, S, T and U are traveling in a bus.
- There are two reporters, two technicians, one photographer and one writer in the group.
- The photographer P is married to S who is a reporter.
- The writer is married to Q who is of the same profession as that of U.
- P, R, Q, S are two married couples and nobody in the group has same profession.
- U is brother of R.

19. Which of the following is a pair of technicians?

- a. RS b. SU c. PT d. QU

20. Which of the following is a pair of reports?

- a. PQ b. RT c. ST d. SU

21. How is R related to U?

- a. Brother b. Sister c. Uncle d. Cannot be determined

22. Which of the following is a pair of husbands:

- a. PQ b. QR c. QS d. PT

23. Which of the following pairs is a couple?

- a. PQ b. PR c. QS d. Cannot be determined

Directions (ques. 24 to 28):-Study the following information carefully and the answer the questions that follow:

- A.B.C.D.E and F are six members in a family in which there are two married couples.
- D is brother of F both D and F are Lighter than B.
- B is mother of D and Lighter than E.
- C a lady, is neither heaviest nor the Lightest in the family.
- E is Lighter than C
- The grandfather in the family is the heaviest.

24. How is E related to F?

- a. Grandmother b. Brother c. Father
- d. Data inadequate e. None of these

25. Which of the following is a pair of married couples?

- a. AB b. BC c. AD d. BE e. None of these

26. Who many male members are there in the family?

- a. 2 b. 3 c. 4

- d. Data inadequate e. None of these
27. Who among the following will be in the second place if all the members in the family are arranged in the descending order of their weights?

- a. A b. C c. D
- d. Data inadequate e. None of these
28. How is C related to D?
- a. Grandmother b. Cousin c. Sister
- d. Mother e. None of these

Directions (Ques 29-33): There are six persons A, B, C, D, E and F. C is the sister of F, B is the brother of E's husband. D is the father A and grandfather of F. There are two fathers, three brother and a mother in the group.

29. Who is the mother?
- a. A b. B c. C d. D e. E
30. Who is E's husband?
- a. B b. C c. A d. F e. None of these
31. How many male members are in the group?
- a. 1 b. 2 c. 3 d. 4 e. None of these
32. How is F related to E?
- a. Uncle b. Husband c. Son d. Daughter
33. Which of the following is a group of brothers?
- a. ABF b. ABD c. BFC d. BDF

Directions (Questions 34-37): there is a family of six persons A, B, C, D, E and F, they are Lawyer, doctor teacher, Salesman, engineer and accountant. There are two married couples in the family .D, the salesman is married to the lady teacher, the doctor is married to the Lawyer. F, the accountant is the son of B and brother of E. C, the lawyer is the daughter-in Law of A.E is the unmarried engineer. A is the unmarried engineer. A is the grandmother of F.

34. How is E related to F?
- a. Brother b. Sister c. Cousin
- d. Cannot be determined e. None of these
35. What is the profession of B?

Directions (43-46): Study the given information's carefully and answers the question given below:

- P, Q, R, S, T and U are six members of a group of which three are males and three are females.
- There are two engineers, two Lawyers, one teacher, and one doctor in the group.
- Q, T, P and R are two married couples and no person in this group has the same profession.
- T, a teacher with blue dress, married a male Lawyer with brown dress.
- Color of the dress of both the husbands and that of both the wives is the same.
- Two persons-have blue dress, two have brown and the remaining one each has black and green.
- P is a male engineer whose sister S is also an engineer.
- Q is a doctor.

43. Who is wife of P?

- a. Q b. R c. S d. T e. None of these

44. Which of the following group of female members?

- a. PR b. QST c. QSU d. QTU e. UST

45. Which of the following is a pair of married Ladies?

- a. PR b. TS c. QT
d. Data inadequate e. None of these

46. What is the color of U's dress?

- a. Black b. Green c. Black or Green
d. Data inadequate e. None of these

Directions (47-51):-Study the given information carefully and answer the question given below:

- There are eight faculty members A, B, C, D, E, F, G and H in the institute, each teaching a different subject.
- There are three Lady Members and of the eight, four are holding Ph.D. degree.
- E teaches Psychology and is Ph.D. A teaches chemistry.
- The one who teaches Economics is not Ph.D. No lady member teaches either Commerce or Law. Law faculty. Does not award Ph.D.
- D and G do not teach either Commerce or Physics.
- H and C are Lady Members and are not Ph. D.F who is Ph.D. teachers Zoology.
- B and G are Ph.D.s and G is a lady member.

47. Who teachers Physics?

- a. C b. Either H or C c. H
d. Either C or G e. None of these

48. Which of the following Lady member is/are Ph.D.?

- a. G b. C and H c. C and D
d. Cannot be determined e. None of these

49. Which of the following statements is true?

- a. Two lady members are Ph.D. b. Three male members are Ph.D.

- c. The person who teaches Zoology is not Ph.D. d. The person who teaches Economics is Ph.D.
- e. None of these
50. Which of the following combinations is not correct?
- a. Commerce-Male-Ph.D. b. Economics-Lady-Non-Ph.D. c. Physics-Lady-Ph.D.
- d. Zoology-Male-Ph.D. e. Chemistry-Male-non-Ph.D.
51. What is the subject taught by G?
- a. Zoology b. Either Physics or Zoology c. Either Physics or economics
- d. Cannot be determined e. None of these

Directions (52-56):- Read the following set of information's correctly and then answer that follow:

- There is a group of six person, A, B, C, D, E and F, seated around a circular table.
- There are two females and four males in this group.
- Both the females are married to two males of the same group. The remaining two male are bachelors.
- A, a female is sitting opposite one of the bachelors, F, her husband is not on either of sides.
- Another female is sitting opposite her husband D.
- The two females are not sitting adjacently.
- On the immediate right of females is seated a bachelor
- 5C has the same marital status as F while B is a father of two sons

52. Who is the other female in the group?
- a. F b. C c. D d. Cannot say e. None of these
53. How many females are seated between the two husbands?
- a. 1 b. 0 c. 2 d. Cannot say e. None of these
54. Moving clockwise. He many bachelors are there between A and her husband. If one starts from the husband?
- a. 0 b. 1 c. 2 d. Cannot say e. None of these
55. Which of the following depicts the correct couples?
- a. ED, AB b. EB, AD c. EC, AB d. Cannot say e. None of these
56. If the two bachelors were to exchange their seats via the shorter route, how many females would they cross?
- a. 0 b. 1 c. 2 d. Cannot say e. None of these

Directions (57-61): Read the following statements carefully and answer questions given below it:

Six persons A, B, C, D, E and F were playing a card game. A's father, mother and uncle were in the group. There were two females. B, the mother of A got more points than her husband. D got more points in the game than E but less than F. Niece of E got the lowest points. Father of A got more points than F but still could not win the game.

57. Who won the game?

- a. A b. B c. F d. D

58. Who got the lowest points?

- a. F b. E c. D d. C

59. Who is the husband of B?

- a. F b. E c. D d. C

60. Who was the lady in the group other than 'B'?

- a. C b. D c. E d. A

61. Who stood second in the game?

- a. A b. B c. C d. D

Directions (62-66): Read the following information carefully and answer questions given below it.

There are five persons A, B, C, D and E. One is badminton player, one is chess player and one is tennis player. A and D are unmarried ladies and do not take part in any game. None of the ladies plays chess or badminton. There is a married couple in which E is a husband. B is the brother of C and is neither a chess player nor a tennis player.

62. Who is the badminton player?

- a. A b. B c. C d. D

63. Who is the tennis player?

- a. A b. B c. C d. D

64. Who is the chess player?

- a. A b. B c. C d. E

65. Who is the wife of E?

- a. A b. B c. D d. C

66. Who is the wife of E?

- a. A b. B c. D d. C

67. The three ladies are?

- a. A, B, C b. B, C, E c. A, B, D d. A, C, D

Directions (67-70): Read the following information and answer questions given below it.

- In a car race there were six participants A, B, C, D, E and F, out of which two were ladies.
- E and his unmarried sister were new entrants this year.
- Husband of D who is also participating this year was last year's winner of the race.
- A and C were last year's runners-up.
- This year's winner was neither last year's winner nor a new entrant.
- B could not complete the race as his car developed engine trouble.
- At the end of the race, C was ahead of A but remained behind E.

68. Who is the husband of D?

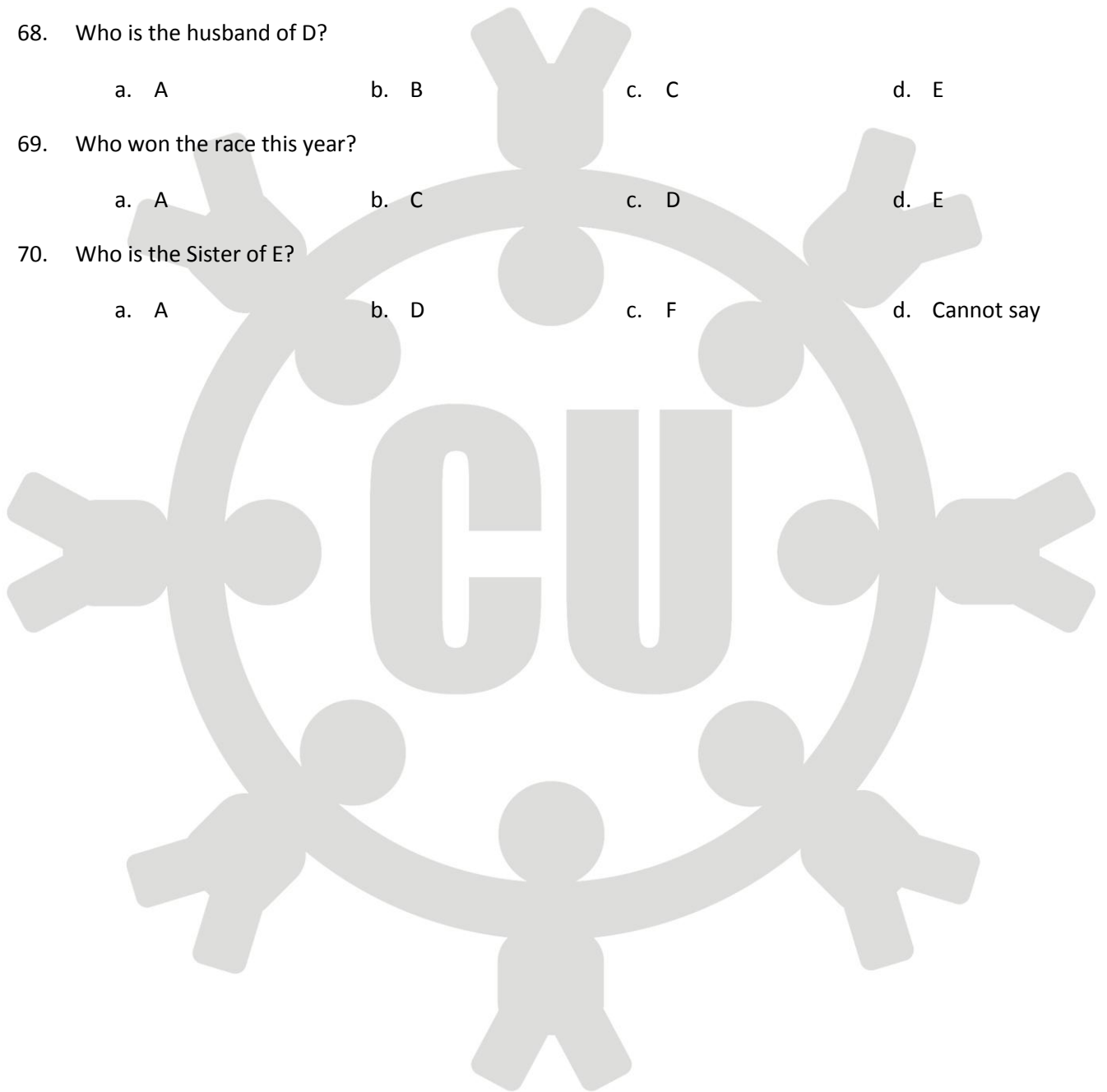
- a. A b. B c. C d. E

69. Who won the race this year?

- a. A b. C c. D d. E

70. Who is the Sister of E?

- a. A b. D c. F d. Cannot say



13-Symbol-Operations

In this chapter, you will undergo questions in which certain relations b/w different sets of elements is given (in terms of 'less than', 'greater than' or 'equal to') using either the real symbols or substituted symbols. The candidate is required to analyze the given statements & then decide which of the relations given as alternative follows from those given in the statements.

Directions: In these questions, certain symbols have been used to indicate relationships between elements as follows:

- $A * B$ means A is either equal to or greater than B
- $A \$ B$ means A is equal to B
- $A \# B$ means A is either equal to or smaller than B
- $A \& B$ means A is smaller than B
- $A @ B$ means A is greater than B

In each question, three statements showing relationships have been given, which are followed by conclusions I & II. Assuming that the given statements are true, find out which conclusion(s) is/are definitely true.

- Mark answer (1) if only conclusion I is true
- Mark answer (2) if only conclusion II is true
- Mark answer (3) if either conclusion I or II is true
- Mark answer (4) if neither I nor II is true
- Mark answer (5) if both conclusions I and II are true

1. **Statements:**

$S * K, T \& K, K * B$

Conclusions:

I. $S \$ B$

II. $S @ B$

2. **Statements:**

$Y \$ Z, H \$ D, Z * D$

Conclusions:

I. $D \# Y$

II. $H \# Z$

3. **Statements:**

$Y \$ Z, H \$ D, Z * D$

Conclusions:

I. $D \# Y$

II. $H \# Z$

4. Statements:

$M * R, R @ T, T \$ K$

Conclusions:

I. $K @ M$

II. $T @ M$

5. Statements:

$H @ J, B \# J, B * F$

Conclusions:

I. $F \$ J$

II. $J @ F$

6. Statements:

$D \$ M, M @ W, W * R$

Conclusions:

I. $R \& D$

II. $W \# D$

7. Statements:

$A \# N, N \& V, V \$ J$

Conclusions:

I. $J * N$

II. $A \# V$

8. Statements:

$K \& T, T * B, B \# M$

Conclusions:

I. $M @ T$

II. $K \# B$

9. Statements:

$B * H, H \& M, M \$ N$

Conclusions:

I. $B * N$

II. $N @ H$

10. Statements:

$W \# R, J * R, J \& K$

Conclusions:

I. $J * W$

II. $K @ R$

14-Syllogism

Syllogism is the 'science of thought as expressed in language'. This means that questions on Syllogisms are to be solved as per the information given without any concern of the formal validity or truth of statements i.e. conclusion should follow directly from the statements given.

With this unique characteristic the logic test becomes an instrument of teaching the candidate to follow the rules & work as per the instruction without an error.

Some important rules are given below, that should be followed in order to get the correct solutions:

Key Rules

- ✓ Use 'A' for 'All'
- ✓ Use 'I' for 'Some'
- ✓ Use 'E' for 'No'
- ✓ Use 'O' for 'Some + Not'

- ✓ $A+A \gg A$
- ✓ $A+I \gg X$
- ✓ $A+E \gg E$
- ✓ $A^* \gg I$

- ✓ $I+I \gg X$
- ✓ $I+A \gg I$
- ✓ $I+E \gg O$
- ✓ $I^* \gg I$

- ✓ $E+E \gg X$
- ✓ $E+I \gg O^*$
- ✓ $E+A \gg O^*$
- ✓ $E^* \gg E$

Odd Pairs:

AO / IO / IE

Example:

Statements:

1. All pens are books

2. All books are pencils

Conclusions: I. All pens are pencils

II. Some books are pens

Answer: The 1st step we must check that, variable 2nd (books) of statement 1 & variable 1st (books) of statement 2 must be same, then we will proceed further.

Now, as per rules, we have $A+A \gg A$,

Thus the answer must start with All

We get, All pens are pencils, which is conclusion I

On the other hand, books & pens are not in one statement and also as per rules, conclusion II is not achieved.

Thus only **conclusion I follow**.

Exercise

DIRECTIONS for questions: Given two statements, verify the conclusions and mark the answer as given below.

Mark A ... if only conclusion I follow

Mark B ... If only conclusion II follows

Mark C ... If either conclusion I or II follows

Mark D ... If neither of the two conclusions follows

Mark E ... If both conclusions follow

1. **Statements:**
1. All hunters are punters
2. Some punters are tigers
- Conclusions:**
I. Some hunters are tigers II. Some punters are hunters
2. **Statements:**
1. All boxes are pens
2. All pens are dogs
- Conclusions:**
I. All boxes are dogs II. Some dogs are pens
3. **Statements:**
1. Some boys are girls
2. All girls are cute
- Conclusions:**
I. Some boys are cute II. All boys are cute
4. **Statements:**
1. All books are pens
2. All pens are pencils
- Conclusions:**
I. All books are pencils II. Some pens are pencils
5. **Statements:**
1. Some singers are rockers
2. All rockers are dancers
- Conclusions:**
I. Some rockers are dancers II. No singer are dancers
6. **Statements:**
1. No bars are coins
2. All coins are books
- Conclusions:**
I. All coins are books II. Some books are not bars
7. **Statements:**
1. Some copies are desks
2. No desks are pen
- Conclusions:**
I. Some copies are pen II. Some copies are not pen
8. **Statements:**
1. All boxes are pens
2. No dogs are pens
- Conclusions:**
I. No boxes are dogs II. Some pen are boxes

9. **Statements:**
1. All cars are trucks
2. Some trucks are buses
- Conclusions:**
I. Some cars are trucks II. Some trucks are not cars
10. **Statements:**
1. All mountains are plateaus
2. All plateaus are mountains
- Conclusions:**
I. Some mountains are plateaus. II. Some plateaus are mountains
11. **Statements:**
1. All prisoners are men
2. No men is educated
- Conclusions:**
I. All prisoners are uneducated II. Some men are prisoners
12. **Statements:**
1. All flowers are candles
2. All lanterns are candles
- Conclusions:**
I. Some flowers are lanterns II. Some lanterns are not flowers
13. **Statements:**
1. Some boxes are pens
2. All dogs are pens
- Conclusions:**
I. Some boxes are pens II. Some pens are boxes
III. Some pens are dogs IV. All pens are dogs
- a. 1,2 & 3 follow b. 2,3 & 4 follows c. 1,3 & 4 follows d. 1,2 & 4 follows
14. **Statements:**
1. All classes are books
2. All pens are books
- Conclusions:**
I. Some classes are pens II. Some pens are books
III. Some pens are classes IV. Some classes are books
- a. Only 1 follow b. Only 2 follow c. 1 & 2 follow d. 2 & 4 follow
15. **Statements:**
1. Some barbers are painters
2. No painter are watches
- Conclusions:**

I. Some barbers are not watches
 III. Some watches are not barbers

II. Some barbers are watches
 IV. Some watches are barbers

- a. 1 & 3 follow b. Either 1 or 2 & 3 follow c. Only 1 follow d. Either 3 or 4 & 1 follow

15-Input – Output

This chapter comprises of questions in which, a message comprising of randomized letters/words or numbers or a combination of both is given as the input followed by steps of free arrangement to give sequential outputs. The candidate is required to trace out the pattern in the given rearrangement & then determine the desired output step, according as is asked in the questions

Patterns to look for in the given sequence:

1. Arranging the given words in the forward/reversed alphabetically order
2. Arranging the given numbers in the ascending/descending order
3. Writing a particular set of words in the reverse order, stepwise
4. Changing places of words/numbers according to a set pattern

The above points are the four possible criteria which you should look for to determine the pattern in the given rearrangement

Directions: Study the following information & answer the given questions given below it: (Ques. 1-5)

Input:	85	16	36	4	19	97	63	9
Step-1	97	85	16	36	04	19	63	9
Step-2	97	85	63	16	36	4	19	9
Step-3	97	85	63	36	16	4	19	9
Step-4	97	85	63	36	19	16	4	9
Step-5	97	85	63	36	19	16	9	4

For the given input, Step-5 is the last step.

1. Which of the following will be step-5 for the given input?

Input: 25 8 35 11 88 67 23

- a. 88 67 35 25 11 8 b. 88 67 35 25 8 11
 c. 88 67 25 35 11 8 d. None of these

2. Which of the following will be 3rd step for the given input

Input: 9 25 16 30 32 19 17 6

- a. 32 9 25 16 30 19 17 6 b. 32 30 9 25 16 19 17 6
c. 32 30 25 9 16 19 17 6 d. None of these

3. Which of the following will be the last step for the given input?

Input: 16 9 25 27 6 5

- a. Step – 1 b. Step – 2 c. Step – 3 d. Step – 4

4. Which of the following will be the last step for the given input?

Input: 3 31 43 22 11 9

- a. Step – 5 b. Step – 2 c. Step – 3 d. Step – 4

5. If the step 4 is given below, which of the following can be the input

Step – 4 92 86 71 69 15 19 16 63

- a. 71 92 86 69 15 19 16 63 b. 86 15 16 19 92 71 63 69
c. Can't be determined d. None of these

Ques. 6 – 9

Input: go for through By easy to access at

Step – 1 access go for Though by easy To at

Step – 2 access at go For though by Easy to

Step – 3 access at by Go for though Easy to

Step – 4 access at by Easy go for though to

Step – 5 access at by Easy for go though to

6. Which of the following will be step 4 for given input

Input: story for around on was He at

- a. around at for He story On was

- b. around for at He story On was
 c. around at for On story He was
 d. None of these

7. Which of the following steps would be? 'an and every for peer to'

- Input:** every And Peer to An for
 a. 2nd b. 3rd c. 4th d. 5th

8. together over Series on feast the so

Which of the above step will be the last but one?

- a. 2nd b. 3rd c. 4th d. 5th

9. Which is the last step for the input?

- Input:** over Go for through at one
 a. 2nd b. 3rd c. 4th d. 5th

Ques. 10 – 12

Input:	go	now	53	39	18	for	again	66
Step – 1	66	go	now	53	39	18	for	again
Step – 2	66	again	go	now	53	39	18	for
Step – 3	66	again	53	go	now	39	18	for
Step – 4	66	again	53	for	go	now	39	18
Step – 5	66	again	53	for	39	go	now	18
Step – 6	66	again	53	for	39	go	now	18
Step – 7	66	again	53	for	39	go	18	now

As per the rule followed in the following questions the appropriate step for the given input.

10. **Input:** trees 18 27 Desk are 91 hour zero 31 16 chairs

Which of the following will be step 4?

- a. 91 are 31 trees 18 27 desk hour zero 16 chairs
 b. 91 trees 18 27 desk are hour zero 31 16 chairs
 c. 91 are 31 chairs trees 18 27 desk hour zero 16
 d. 91 are 31 chairs 27 desk 18 trees hour zero 16

11. **Input:** how two 38 23 87 43 room over

Which of the following steps will be the last?

- a. Step 4 b. Step 5 c. Step 6 d. Step 7

12. **Step 2 of an input is:** 94 car 86 window shut 52 31 house

Which of the following is definitely the input?

- a. 94 Car window 86 shut 52 31 house
b. 86 window 94 car shut 52 31 house
c. car Shut window 86 52 31 house 94
d. Cannot be determined

(Ques. 13-14) A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input:	51	pour	31	star	new	23	47	home
Step – 1	23	51	pour	31	star	new	47	home
Step – 2	23	Star	51	pour	31	new	47	home
Step – 3	23	Star	31	51	pour	new	47	home
Step – 4	23	Star	31	pour	51	new	47	home
Step – 5	23	Star	31	pour	47	51	new	home
Step – 6	23	Star	31	pour	47	new	51	home

As per the rule followed in the following questions the appropriate step for the given input.

Step 2 of an input is: 18 task bear cold duck 81 64 32

13. How many more steps will complete the rearrangement?

- a. 4 b. 6 c. 5 d. 7

14. **Input:** 72 59 37 go for picnic 24 journey

How many steps will be required to complete the rearrangement?

- a. 4 b. 5 c. 6 d. 7

16-Data Sufficiency

The section consists of problems in which a question of any topic such as Coding-decoding, blood relations, puzzle test, direction test, ranking & time sequence test, arithmetic reasoning etc. is given, followed by certain statements containing facts providing clues to solve the question. The candidate is required to find out which of the given statements is/are sufficient to answer the given question.

Example:

Question: How is Mani related to Neha?

- I. Mani is the only son of Neha's mother-in-law
- II. Ritu is Mani's only sister

Answer: From I, we know that Mani is the only son of Neha's mother-in-law i.e. Mani is Neha's husband. However the relation b/w Mani & Neha cannot be derived from II. Thus, I alone is sufficient to answer the question

(Directions) In each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and

Give answer:

- (A) If the data in statement I alone are sufficient to answer the question.
- (B) If the data in statement II alone are sufficient to answer the question.
- (C) If the data either in statement I alone or in statement II alone are sufficient to answer the question
- (D) If the data given in both statements I and II together are not sufficient to answer the question and
- (E) If the data in both statements I and II together are necessary to answer the question.

1. **Question:** Why haven't Indian scientists made such headway in any field after independence?

- I. Indian scientists are not provided with up to date laboratory facilities.
- II. Indian scientists regard that knowledge of western science advances is enough for a nation to advance.

A. A B. B C. C D.D E. E

2. **Question:** What time does the office starts working?

- I. Some employees reach office at 9:00 am.
- II. Some employees reach office at 4:00 pm.

A. A B. B C. C D.D E. E

3. **Question:** How many flats are there in this housing complex?

- I. Each wing has 16 flats which is incidentally equal to the total number of buildings.
- II. Each building has four wings - A, B, C and D.

A. A B. B C. C D.D E.

4. **Question:** Out of A, B, C and D, who was selected by the interview panel?

- I. C's interview was much better than A and D
- II. B has better qualification and experience than other three.

A. A B. B C. C D.D E. E

5. **Question:** How many flats are there in this housing complex ?

I. Each wing has 16 flats which is incidentally equal to the total number of buildings.

II. Each building has four wings - A, B, C and D.

A. A

B. B

C. C

D. D

E. E

6. **Question:** Out of A, B, C and D, who was selected by the interview panel ?

I. C's interview was much better than A and D.

II. B has better qualification and experience than other three.

A. A

B. B

C. C

D. D

E. E

7. **Question:** Did Arvind lose money in the school ?

I. Children are not expected to carry money with them to school.

II. His father gave him money in the morning.

A. A

B. B

C. C

D. D

E. E

8. **Question:** Does drinking coffee leads to headache ?

I. Overstimulation of pancreas leads to headache.

II. Coffee contains caffeine which excessively stimulates pancreas.

A. A

B. B

C. C

D. D

E. E

9. **Question:** The cost of the kit is solely based on the number of leaves. The kit has how many leaves?

I. The cost of kit of medium size is Rs 850.

II. The small size kit contains 55 leaves.

A. A

B. B

C. C

D. D

E. E

10. **Question:** In which year was Rahul born ?

I. Rahul at present is 25 years younger to his mother.

II. Rahul's brother, who was born in 1964, is 35 years younger to his mother

A. A

B. B

C. C

D. D

E. E

11. **Question:** What will be the total weight of 10 poles, each of the same weight ?

I. One-fourth of the weight of each pole is 5 kg.

II. The total weight of three poles is 20 kilograms more than the total weight of two poles

A. A

B. B

C. C

D. D

E. E

12. **Question:** How many children does M have?

I. H is the only daughter of X who is wife of M.

II. K and J are brothers of M.

A. A

B. B

C. C

D. D

E. E

13. **Question:** How much was the total sale of the company ?

I. The company sold 8000 units of product A each costing Rs. 25.

II. This company has no other product line

A. A

B. B

C. C

D. D

E. E

14. **Question:** How many doctors are practicing in this town ?

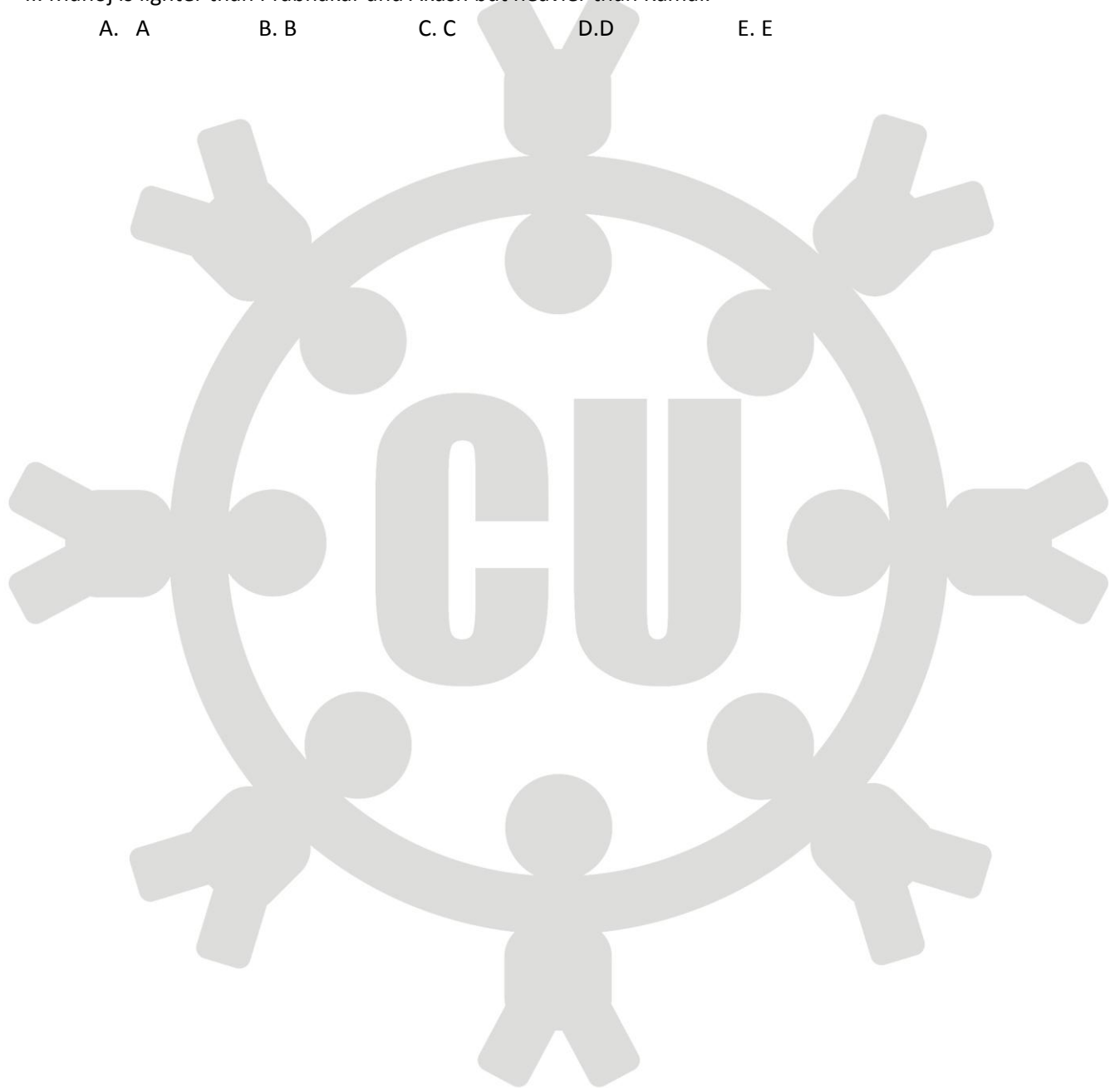
- I. There is one doctor per seven hundred residents.
- II. There are 16 wards with each ward having as many doctors as the number of wards.

A. A B. B C. C D.D E. E

15. **Question:** Who among Manoj, Prabhakar, Akash and Kamal, is the heaviest ?

- I. Prabhakar is heavier than Manoj and Kamal but lighter than Akash.
- II. Manoj is lighter than Prabhakar and Akash but heavier than Kamal.

A. A B. B C. C D.D E. E



17-Decision Making

In this type of questions, you are given the necessary qualification required to be fulfilled by a candidate for a certain vacancy in a job/promotion/facility, along with the bio-data of certain candidates who have applied for the same. You are then required to assess the candidate's eligibility or potential & thereby decide upon the course of action to be taken from among the given alternatives.

Directions (Q. 1-5): Read the following information and answer the questions given below it.

The following are the Criteria for the admission to the medical Course in a collage. The student must'

- Have Passed XII Std. Examination in Science with at least 50%marks'
- Be at least 18 year old as on 1.4.1991'
- Have scored at least 65%marks in the entrance examination'
- Be able to pay the monthly tuition fee of Rs.400' and
- Be able to pay one time deposit Rs.15, 000.
- The case of a student who satisfies all other criteria but can pay the one – time deposit only up to Rs.10, 000 is to be referred to the Director of the Institute.
- The Case of a Candidate Who Satisfies all other Criteria apart from the Percentage of marks in XIIth Std. is to be referred to the Chairman, Admission
- A student who has satisfied all other Criteria but has not yet received the result of the Final examination of XIIth Standard may be provisionally admitted.

On the basic of the above Criteria and the information given in each of the following questions you have to take decisions as regards admittance of the student. Please not you are not to assume anything in the case of any Student. Mark answers.

- a. If the students is not to be admitted.
- b. If the students is to be admitted.
- c. If the students is to be referred to the director.
- d. If the students is to be referred to the Chairman, Admission.
- e. If the students is to provisionally admitted.

1. Irene Fernandez has passed XIIth Std. Exam in science with 70%marks. She has secured 75% marks in the entrance exam and was 18 years old on 1.7.90. She can pay tuition fee of Rs.400 Per month but can pay one-time deposit of only Rs.10, 000.
2. Prabir Singhal secured 60% marks in the XIIth std. Exam with Science. He was 19 years old on 1.3.90 15, 000 and the monthly tuition fee of Rs.400.
3. Shard Joshi Passed his XIIth Std. Exam with 52% marks in science and will be 20 years old. As on 8th December 1991. He has secured 70% marks in the entrance test. He is able to pay one time deposit of Rs.15, 000 and the monthly tuition fee of Rs.400.
4. Utpal Gosh has passed XIIth std. in Science with first class and was 18 years old in Jan.1991. He has secured 70% marks in the entrance test and can pay monthly tuition fee of Rs.400 and one-time deposit of Rs.15, 000.
5. Deven Verma has passed XIIth Std.Exam in science with 48% marks and was bourn on 25th July; 1972.He has secured 80% marks in the entrance examination. He is able to pay one-time deposit of Rs.15, 000 and monthly tuition fee of Rs.400.

Directions (6-15): Read the following information and answer the question given below it.

The following are the conditions are selecting a “Management Trainee” for a reputed public Sector company. The Candidate must:

- be a Post-graduate in Commerce with 60% marks or a C.A
- not be more than 25 years old and less than 20 years old as on 1.12.92.
- have fluency in English and Hindi.
- be in Position to pay Rs.10, 000/-as deposit to the company.
- given an Undertaking to work for at least 5 years for the Company. However

If a Person Satisfies all the conditions except (a) above, he should be referred to Managing Director of the company.

If a Person satisfies all the conditions except (d) and/or (e) above, he should be referred to the Chairman of the company.

On the basic of the above Criteria and the information provided, you have to decide each case. You are not to assume anything which anything which is the given in the questions. The alterative course of decision and the method of indicating the same are as follows

- a. If data provided is not complete is not complete in the Case of any of the Candidates.
 - b. If the Candidate Cannot be selected as a Management Trainee.
 - c. If the Candidate Can be selected as a Management Trainee.
 - d. If the Candidate is to be referred to the Managing Director.
 - e. If the Candidate is to be referred to the Chairman.
-
6. 22-Year-old Raju is a Post Graduate in Commerce with 60% marks. He is fluent in Hindi only. He can pay the required Deposit and is also ready to give 5 Years undertaking.
 7. 21-Year-old Vijay has obtained 63% marks in Post-Graduate with Commerce is fluent in Hindi and English and can pay the required deposit. He is willing to give 5 Years Undertaking.
 8. 23-Years-old Suresh is a C.A. with fluency 10 Hindi and English. He Can Pay Rs.8, 000 as deposit and will give 5 years Undertaking.
 9. Amar is a Post Graduate with 59% marks in Commerce. He is fluent in Hindi and English and also willing to give an Undertaking of 5 Years. He Can Pay the required deposit.
 10. Rajan is a Post Graduate in Commerce with 70% Marks. He is fluent in Hindi and English He can pay the required deposit and is ready to give 5 years Undertaking. His date of Birth is 01.11.1973.
 11. Anil, Whose date of birth is 01.09.1972. Has obtained 70% marks in Post Graduate and has also Complete his CA. He Can pay the required deposit, is fluent in Hindi and English and also has no objection to giving 5 Years Undertaking to the Company
 12. 24-Year-old Saurabh is a Post Graduate in Commerce With 64% marks. He is fluent in Hindi and English. He can pay the required deposit and is willing to Give 5 Years Undertaking.
 13. Neelam Garg, Whose date of Birth is 01.081973, has a CA. degree. She is fluent in Hindi and English, can pay the deposit and also has no objection to giving4 years undertaking.
 14. 24-Years-old Madan has got 62% in Graduation with Commerce. He has fluency in Hindi and English. He can pay the required deposit and is also ready to give 5 years Undertaking.
 15. Sujan Ray is a Post Graduate with 65% marks, is fluent in Hindi and English, and has done CA. also. He is 23 Years old and willing to give an undertaking of 5 years.

Directions (16-20): The following are the directions to be followed for the selection of music directors for a recording Company.

- The Candidate Must be over 35 years of ages as on 1.6.96
- The Candidate Must be at least a Graduate in music.
- The Candidate must have at least one record Cassette of his or her music.
- The Candidate Must have given music for at least two TV .serials

If a Candidate fulfils all these criteria, he or she will be selected as a music director. However, if a candidate fulfils all these criteria expect.

IV above, his or her Case Will be referred to the Producer.

I above, his or her case Will be referred to the Director.

II above, but has given music for Some films (feature film only he) or She Will be Selected as a Music Director

On the basis of these Conditions decide What Course of action to be taken in the case of the following candidates. Give answer.

- If the Candidate is to be selected as a Music director.
- If the Candidate is not to be selected as a Music Director.
- If his or Case is not be referred to the Producer.
- If his or her Case is to be referred to the Director.
- If the data given about the Candidate are inadequate to give a Define Course of action.

16. Partha Sah is 37 Years old as on 1.1.95. He is a Graduate in music. He has given music for several T.V .serial (three serials).He has given music in some feature films.

17. Manju Majumdar was born on 7.2.1960.She has given Music in five T.V. Serials. She has given Music in two feature films and has seven Cassettes of her music.

18. Manju Srivastava has served cassettes of his music. He has given music in four T.V .serials and three feature films. He is a Graduate in music and He is older than Manju Majumdar.

19. Shravan Mohapatra has a graduate degree in music. He is 40 Years old. He is not given music .He has recorded some Cassettes of his music.

20. Mohit Saxena has given music in Several T.V.serials .He was born on 7.8.1969.He is a graduate in music and has recorded ten cassettes of his music. He has also given music in five documentary films.

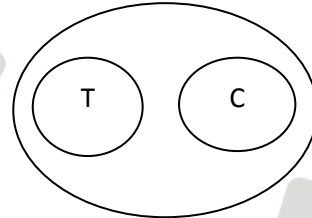
18-Venn Diagram

This section deals with the questions which aim at analyzing a candidate's ability to relate a certain given group of items & illustrate it diagrammatically.

Example:

We have to show the relation among **Table, Chair and Furniture** diagrammatically.

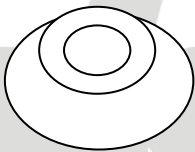
The figure on the right shows the above mentioned relation



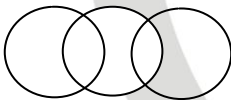
Exercise

DIRECTIONS for questions 1 to 4: Each of these questions below contains three groups of things. You are to choose from the following five numbered diagram that depicts the correct relationship among the three groups of things in each question.

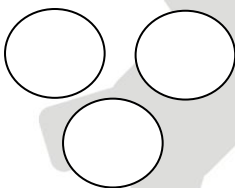
1.



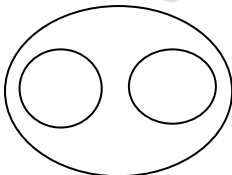
2.



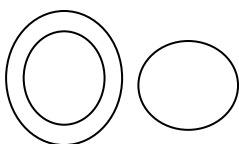
3.



4.



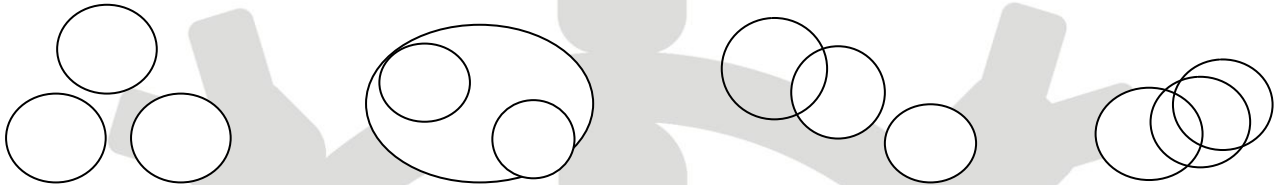
5.



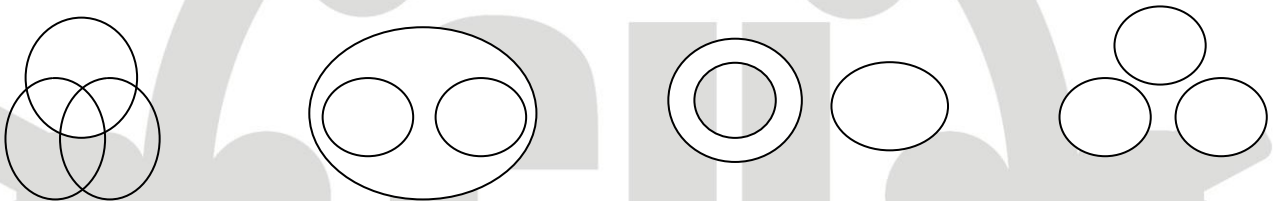
1. Tables, Chairs, Furniture
2. Tie, Shirt, Pantaloon
3. Dogs, Pets, Cats
4. Brinjal, Meat, Vegetables

DIRECTIONS for questions 5 to 7: In each of the following questions, find out which of the alternatives indicates the correct relationship between the three given words.

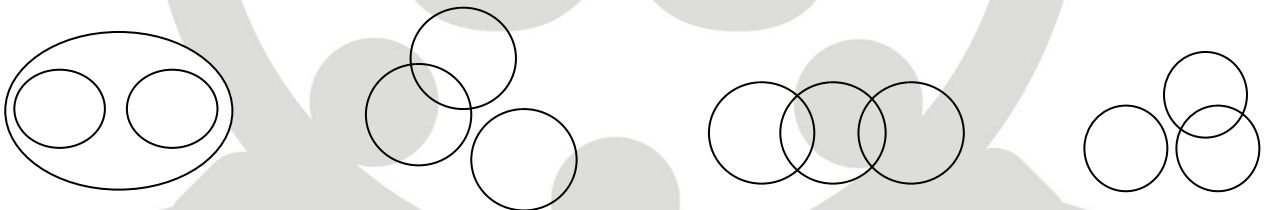
5. Elected house, M.P., M.L.A.



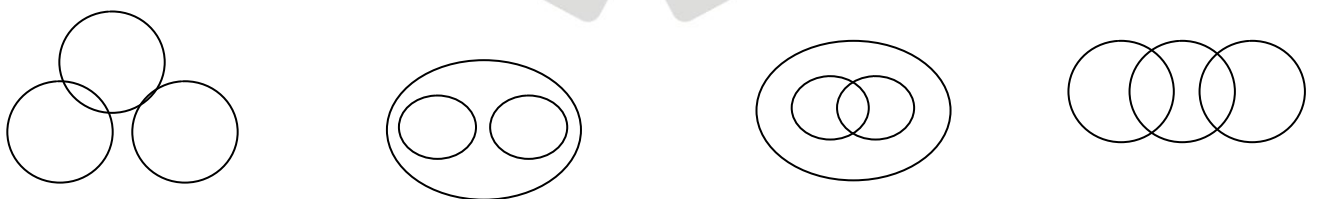
6. Triangle, Four-sided figure, Square



7. Doctor, Nurse, Human being



DIRECTIONS for questions 8 to 13: Each one of the following questions contains three items. Using the relationship between these items, match each question with the most suitable diagram. Your answer is the letter denoting that diagram..



8. Deer, Rabbit, Mammal

9. Human beings, Teachers, Graduates
10. Whales, Fishes, Crocodiles
11. Plums, Tomatoes, Fruits
12. Mountains, Forests, Earth
13. Flowers, Clothes, White

14. In an examination 80 % of the students passed in E, 85 % in M & 75 % in both E & M. If 40 students failed in both the subjects, the total number of students is
 - a. 400
 - b. 360
 - c. 240
 - d. 440
15. In a town, 28 % of the persons read newspaper 'x' and 50% read the newspaper 'y'. What is the max % of persons who could be reading both x and y?
 - a. 22%
 - b. 78%
 - c. 28%
 - d. 50%
16. In a class of 32 students, 20 like to play volleyball, 15 like to play cricket. Also each of the student likes to play at least one or two games. How many students like to play both cricket and volleyball?
 - a. 5
 - b. 8
 - c. 3
 - d. 9
17. In a group of 40 people, 25 speak English, 20 speak both English and Hindi and all the people speak at least one of the two languages. How many people speak (i) Hindi (ii) only Hindi?
 - a. 35, 15
 - b. 15, 35
 - c. 30, 10
 - d. 10, 30
18. In a group of 50 people, 23 play cricket, 28 play football and 34 play badminton. Of these, 16 play both cricket and football, 14 plays both football and badminton and 11 play both cricket and badminton. How many of these play all the three games?
 - a. 5
 - b. 15
 - c. 9
 - d. 6

19-Course of Action

A course of action is a step or administrative decision to be taken for improvements, follow-up or further action with regard to the problem, policy etc. on the basis of the information given in the statement. The questions in this section, thus, involve finding the appropriate course of action, considering the problem or policy being talked about in the statement

Example:

Statement: The ground water in the locality has been found to contain high level of arsenic making it dangerous to drink.

Course of action: I. The people living in that area should be shifted to another area to avoid a catastrophic situation

II. The govt. should make arrangements for supply of safe drinking water

Answer: Clearly, contamination of ground water doesn't provide sufficient grounds to shift people to other areas. The problem demands creating awareness among people of the dangers of drinking contaminated water & arranging to provide them safe drinking water. **Thus only Course II follows.**

Exercise

Directions: A statement is given followed by courses of action. A course of action is taken for improvement follow-up etc. Read the statement carefully and pick the correct answer choice. And given answer (a) If only I follows (b) if only II follows (c) if both I and II follows (d) If neither I nor II follows

1. **Statement:** A group of school student was reported to be enjoying at a picnic spot during school hours.

Course of action: I. the Principal should contacted the Parents of these students and tell them about the incident with areal warning for the future.

II. Some disciplinary action must be taken against those students and all other students should be made aware of it.

2. **Statement:** Every year, at the beginning or at the end of the monsoons, we have some cases of Conjunctivitis, but this year it seems to be a major epidemic witness after nearly four year.

Course of action: I. Precautionary measures should be taken after every four years to check this epidemic.

II. People should be advised to drink boiled water during winter season.

3. **Statement:** Footpaths of a busy road are crowded with vendors selling cheap items.

Course of action: I. the help of Police should be sought to drive them away.

II. Some space should be provided to them where they can earn their bread without blocking footpaths'.

4. **Statement:** The Indian electronic component industry venturing in to the west European markets faces tough competition from the Japanese.

Course of action: I. India should search for other international markets for its products.

II. India should improve the quality of the electronic components to complete with the japans in these markets.

5. **Statements:** A recent study shows that children below five die in the cities of the developing countries mainly of diarrhea and Parasitic intestinal worms.
Course of action: I. Governments of the developing Countries should take adequate measures to improve the hygienic Conditions in the cities.
II. Children below five years in the developing countries need to be brought under constant medication.
6. **Statement:** The sale of a Particular product has gone down considerably causing great concern to the company.
Course of action: I. The company should make a proper study of rival Products in the market.
II. The price of the product should be reduced and the quality improved.
7. **Statements:** Mr. X, an active member of the union, often insults his superiors in the office with his rude behavior.
Course of action: I. He should be transferred to some department.
II. The matter should be referred to the union.
8. **Statements:** Most of the development plans develop on proper only.
Course of action: I. The in-charge should be instructed to supervise the field work regularly.
II. The supply of the paper to such departments should be cut short.
9. **Statements:** The office in charge of a company had a hunch that money was missing from the Safe.
Course of action: I. He should get it recorded with the help of the Staff and check it with the balance sheet.
II. He should inform the Police.
10. **Statements:** Youngsters are often found starting at obscene Posters.
Course of actions: I. Children should be punished and if they are found doing so.
II. Any display of such materials be banned.
11. **Statements:** In spite of the Principal's repeated Warnings, a Child was Caught exploding crackers secretly in the school.
Course of action: I. All the crackers should be taken away from the child and he should be threatened not to do it again.
II. The child should be severely punished for his wrong act.
12. **Statement:** A train derailed near a station while moving over a bridge and fell in to the river.
Course of action: I. The Railway authorities should Clarify the reason of the accident to the government.
II. The Government should allocate funds to compensate for the destruction caused.
13. **Statement:** Most of the children in India are not able to get education, because they get employed to earn Livelihood in their childhood only.
Course of action: I. Education should be made Compulsory for all Children up to the age of 14.
II. Employed children below the age of 14 years should be banned.

14. **Statements:** The Central Bureau of Investigation receives the complaint of an officer taking bribe to do the duty he is supposed to.
Course of action: I. CBI should try to catch the officer red-handed and then take a strict action against him.
II. CBI should wait for some more complaints about the officer to be sure about the matter.
15. **Statements:** Courts take too long in deciding important disputes of various departments.
Course of action: I. Courts should be ordered to speed up matters.
II. Special Power should be granted to officer to settle disputes concerning their department.
16. **Statements:** Financial stringency prevented the State government from paying salaries to its employees for the last three months.
Course of action: I. the state Governments should reduce wasteful expenditure and arrange to pay the salaries of its employees.
II. The State government should immediately curtail the staff strength.
17. **Statements:** the finance Ministers submits his resignation a month before the new budget is to present in the Parliament.
Course of action: I. The resignation should be accepted and another person's should be appointed as the Finance Minister.
II. the resignation should not be accepted.
18. **Statements:** the Librarian finds some cases in which the pages from certain books issued from the library are torn.
Course of action: I. the Librarian should keep a record of a book issued by each student, and if the pages are found tom, strict measures should be taken against the child who had been issued that book.
II. some funds should be collected from the children collectively to renovate the library.
19. **Statements:** the killer enteric fever has so far claimed 100 lives in some tribal villages in M.P. during the post three days.
Course of action: I. the residents to these villages should immediately be shifted to a non infected area.
II. The government should immediately send a medical squad to this area to restrict spread of the killer disease.

20-Statements & Arguments

In this type of questions, a statement concerned with a political, social or economic issue is given, followed by certain arguments in favor of or against the statement. The candidate is required to analyze first the statement, then the arguments, in context of the statements & finally decide which of the arguments hold strong & help formulate the most appropriate opinion on the subject.

In making decisions about important questions, it is desirable to be able to distinguish b/w 'strong argument' & 'weak argument'.

Strong arguments are those which are both important & directly related to the question.

Weak arguments are those which are of less importance & also may not be directly related to the question.

Example:

Statement: Should education be brought under the control of central Govt. like defence?

Arguments: I. No, education is a state subject & it should remain with state

II. Yes, this is the only way to establish uniformity in the growth of education across the states

Solution: Clearly, the benefits of education can reach out better to the masses if looked after by governing bodies at state level, rather than if looked after by single body at the same time. Besides, uniformity in the education can be achieved by constant monitoring, and prescribing a common curriculum & assessment policy. So, **only I is strong**

Exercise

Each of the following questions consists of a statement followed by two arguments I and II.

Give answer:

- (A) If only argument I is strong
- (B) If only argument II is strong
- (C) If either I or II is strong
- (D) If neither I nor II is strong and
- (E) If both I and II are strong

1. **Statement:** Should the railways immediately stop issuing free passes to all its employees?

Arguments:

I. No. The employees have the right to travel free

II. Yes. This will help railways to provide better facility

2. **Statement:** Should number of holidays of government employees be reduced?

Arguments:

I. Yes. Our government employees are having maximum number of holidays among the other countries of the world

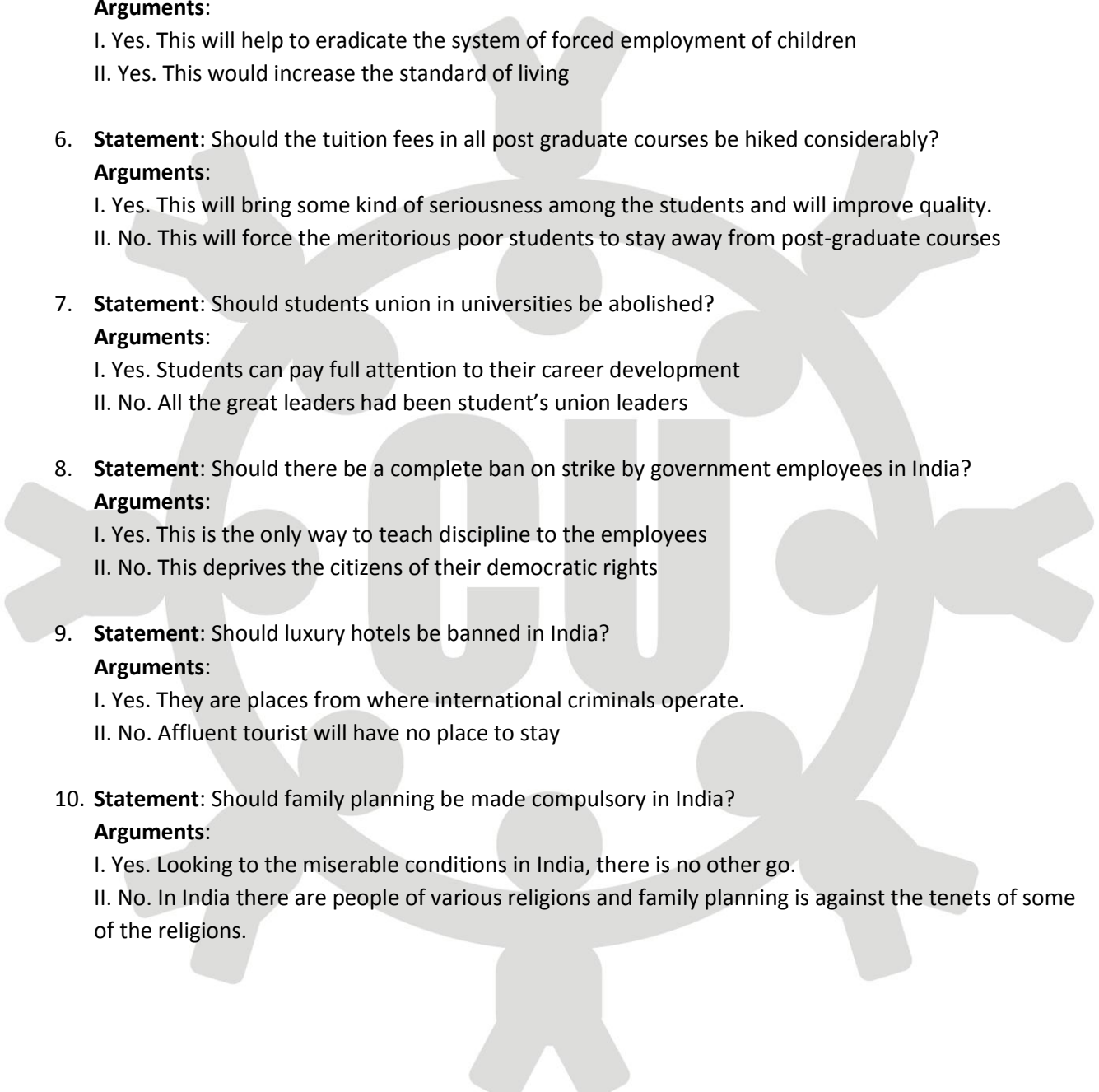
II. Yes. It will lead to increased productivity of government offices

3. **Statement:** Should there be reservation of seats and posts on communal basis?

Arguments:

I. Yes. It will check most of the inter-communal biases.

II. No. Ours is a secular state.

- 
4. **Statement:** Should government stop spending huge amounts of money on international sports?
Arguments:
I. Yes. This money can be utilised for poor
II. No. Sports-persons will be frustrated and will not get international exposure
5. **Statement:** Should education be made compulsory for all children up to the age of 14?
Arguments:
I. Yes. This will help to eradicate the system of forced employment of children
II. Yes. This would increase the standard of living
6. **Statement:** Should the tuition fees in all post graduate courses be hiked considerably?
Arguments:
I. Yes. This will bring some kind of seriousness among the students and will improve quality.
II. No. This will force the meritorious poor students to stay away from post-graduate courses
7. **Statement:** Should students union in universities be abolished?
Arguments:
I. Yes. Students can pay full attention to their career development
II. No. All the great leaders had been student's union leaders
8. **Statement:** Should there be a complete ban on strike by government employees in India?
Arguments:
I. Yes. This is the only way to teach discipline to the employees
II. No. This deprives the citizens of their democratic rights
9. **Statement:** Should luxury hotels be banned in India?
Arguments:
I. Yes. They are places from where international criminals operate.
II. No. Affluent tourist will have no place to stay
10. **Statement:** Should family planning be made compulsory in India?
Arguments:
I. Yes. Looking to the miserable conditions in India, there is no other go.
II. No. In India there are people of various religions and family planning is against the tenets of some of the religions.

21-Statements & Assumptions

An assumption is something supposed or taken for granted, i.e. a fact that can be accepted as true on considering the contents of the given statements

Example:

Statement: It is faster to travel by air to Delhi from Bangalore.

Assumption: I. Bangalore & Delhi are connected by air

II. There is no other means of transport available to Delhi from Bangalore.

Answer: The statement advises to travel by air b/w two cities. So, I is implicit besides it talks of air transport being a faster means of travel. This means that other means of transport are slower than air transport is available. So, II is not implicit. **Hence I is implicit**

Exercise

Each of the following questions consists of a statement followed by two assumptions I and II.

Give answer:

- (A) If only assumption I is implicit
- (B) If only assumption II is implicit
- (C) If either I or II is implicit
- (D) If neither I nor II is implicit and
- (E) If both I and II are implicit

1. **Statement:** It is desirable to put the child in school at the age of 5 or so.

Assumptions:

- I. At that age the child reaches appropriate level of development and is ready to learn.
- II. The schools do not admit children after six years of age.

2. **Statement:** The chairman and secretary of the housing society have requested society members to use water economically to help society save on water tax.

Assumptions:

- I. Majority of members of society are likely to follow the request
- II. It is desirable to reduce expenditure wherever possible

3. **Statement:** Double your money in five months - An advertisement.

Assumptions:

- I. The assurance is not genuine
- II. People want their money to grow

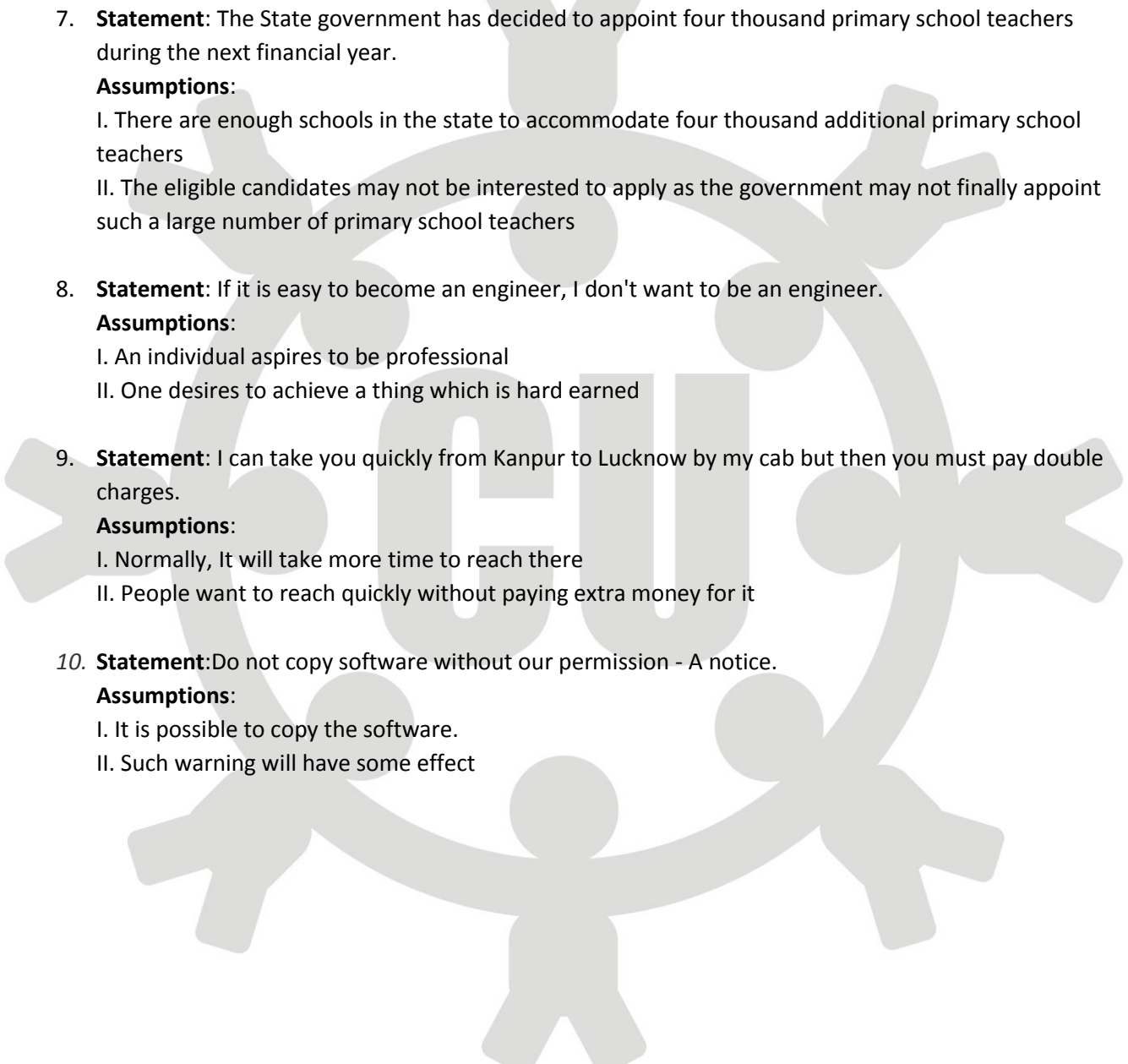
4. **Statement:** Read this book to get detailed and most comprehensive information on this issue.

Assumptions:

- I. The person who wants this information can read
- II. There are other books available on this issue

5. **Statement:** In case of any difficulty about this case, you may contact our company's lawyer.

Assumptions:

- 
- I. Each company has a lawyer of its own.
II. The company's lawyer is thoroughly briefed about this case.
6. **Statement:** "In order to bring punctuality in our office, we must provide conveyance allowance to our employees." - In charge of a company tells Personnel Manager
Assumptions:
I. Conveyance allowance will not help in bringing punctuality
II. Discipline and reward should always go hand in hand
7. **Statement:** The State government has decided to appoint four thousand primary school teachers during the next financial year.
Assumptions:
I. There are enough schools in the state to accommodate four thousand additional primary school teachers
II. The eligible candidates may not be interested to apply as the government may not finally appoint such a large number of primary school teachers
8. **Statement:** If it is easy to become an engineer, I don't want to be an engineer.
Assumptions:
I. An individual aspires to be professional
II. One desires to achieve a thing which is hard earned
9. **Statement:** I can take you quickly from Kanpur to Lucknow by my cab but then you must pay double charges.
Assumptions:
I. Normally, It will take more time to reach there
II. People want to reach quickly without paying extra money for it
10. **Statement:** Do not copy software without our permission - A notice.
Assumptions:
I. It is possible to copy the software.
II. Such warning will have some effect

ANSWER KEY-REASONING

ANALOGY							
1)A	2)D	3)D	4)C	5)B	6)D	7)C	8)C
9)B	10)A	11)A	12)C	13)B	14)D	15)C	16)B
17)A	18)B	19)B	20)C				
1)C	2)A	3)A	4)D	5)B	6)D	7)D	8)B
9)D	10)B	11)C	12)D				

BLOOD RELATIONS							
1)A	2)C	3)B	4)D	5)C	6)D	7)B	8)B
9)A	10)A	11)C	12)D	13)B	14)A	15)B	16)D
17)A	18)C	19)C	20)C	21)A	22)B	23)D	24)D
25)C	26)A	27)D	28)D	29)C	30)B	31)D	32)B
33)C	34)E						

BLOOD RELATIONS-2							
1)A	2)E	3)A	4)B	5)B	6)A	7)B	8)C
9)D	10)D	11)A	12)A	13)D	14)A	15)D	16)B
17)C	18)D	19)B	20)A	21)C			

SYMMETRIC RELATIONS							
1)A	2)C	3)D	4)B	5)B	6)C	7)D	8)D
9)A	10)A	11)C	12)A	13)B	14)D	15)D	16)D
17)B	18)C	19)A	20)A	21)A	22)D	23)D	24)D
25)A	26)B	27)C	28)A	29)C	30)D	31)A	32)B
33)D	34)B						

DIRECTIONS							
1)D	2)A	3)C	4)B	5)B	6)D	7)C	8)B
9)E	10)D	11)A	12)D	13)D	14)C	15)B	16)D
17)C	18)C	19)A	20)D	21)C	22)D	23)C	24)C
25)C	26)A	27)A	28)B	29)A	30)B	31)C	32)A
33)C	34)C	35)A	36)B	37)C			

CODING-DECODING 1							
1)B	2)D	3)A	4)C	5)A	6)C	7)A	8)D
9)C	10)A	11)D	12)A	13)B	14)A	15)A	16)B
17)D	18)A	19)C	20)A	21)B	22)C	23)D	

CODING-DECODING 2							
1)C	2)D	3)C	4)A	5)C	6)C	7)A	8)A
9)A	10)B	11)C	12)A	13)A	14)D	15)D	16)D
17)A	18)C	19)B	20)C	21)D	22)A	23)B	24)C
25)B	26)A	27)A	28)C	29)D			

NUMBER SERIES							
1)B	2)A	3)D	4)A	5)C	6)C	7)B	8)B
9)B	10)C	11)D	12)A	13)B	14)A	15)C	16)C

17)B	18)A	19)D	20)D	21)B	22)A	23)B	24)B
25)A	26)B	27)B	28)D	29)D	30)A	31)D	32)A
33)A							

ALPHA SERIES							
1)A	2)D	3)C	4)A	5)C	6)D	7)B	8)B
9)A	10)C	11)A	12)C	13)B	14)A	15)B	16)A
17)C	18)C	19)B	20)D	21)C			

ALPHA SERIES& NUMBER RANKING							
1)A	2)C	3)A	4)C	5)B	6)B	7)A	8)D
9)B	10)C	11)B	12)A	13)D	14)D	15)D	16)A
17)D	18)D	19)C	20)B				

MATRIX							
1)B	2)C	3)B	4)D	5)D	6)A	7)D	8)C
9)A	10)B	11)C	12)B	13)D	14)A	15)B	16)C
17)A	18)A	19)A					

ODD ONE OUT							
1)D	2)D	3)A	4)E	5)E	6)B	7)B	8)A
9)A	10)B	11)A	12)C	13)D	14)B	15)C	16)D
17)A	18)A	19)C	20)B	21)D	22)C	23)B	24)D
25)D	26)A	27)A	28)A	29)D	30)C		

CALENDARS							
1)C	2)B	3)A	4)C	5)C	6)B	7)C	8)B
9)C	10)C	11)D	12)A				

SEATING ARRANGEMENT & PUZZLE SOLVING							
1)D	2)D	3)A	4)C	5)A	6)A	7)D	8)A
9)D	10)E	11)A	12)C	13)D	14)A	15)C	16)E
17)A	18)A	19)D	20)C	21)D	22)B	23)D	24)C
25)E	26)D	27)B	28)A	29)E	30)C	31)D	32)C
33)A	34)D	35)B	36)B	37)D	38)E	39)C	40)B
41)C	42)A	43)A	44)B	45)C	46)C	47)B	48)A
49)B	50)C	51)D	52)A	53)B	54)C	55)A	56)B
57)E	58)E	59)D	60)C	61)B	62)B	63)C	64)D
65)D	66)D	67)D	68)A	69)C	70)D		

SIMBOPERATIONS							
1)3	2)5	3)5	4)4	5)3	6)5	7)4	8)5
9)2	10)2						

SYLLOGISMS							
1)B	2)E	3)A	4)E	5)D	6)B	7)C	8)E
9)C	10)E	11)B	12)C	13)A	14)D	15)D	

DATA SUFFICIENCY							
1)A	2)D	3)E	4)D	5)E	6)D	7)D	8)E
9)D	10)E	11)C	12)D	13)E	14)B	15)A	

INPUT-OUTPUT							
1)A	2)C	3)B	4)A	5)C	6)A	7)B	8)D
9)E	10)C	11)A	12)D	13)B	14)C		

DECISION MAKING							
1)C	2)B	3)B	4)B	5)D	6)B	7)C	8)E
9)A	10)B	11)C	12)C	13)B	14)A	15)A	16)E
17)A	18)A	19)C	20)D				

VENN DIAGRAMS							
1)D	2)C	3)D	4)E	5)B	6)C	7)A	8)B
9)C	10)A	11)B	12)B	13)D	14)A	15)C	16)C
17)A	18)D						

COURSE OF ACTION							
1)C	2)D	3)B	4)C	5)C	6)C	7)B	8)D
9)B	10)C	11)A	12)A	13)A	14)A	15)B	16)C
17)C	18)B	19)C					

STATEMENTS & ARGUMENTS							
1)D	2)B	3)B	4)B	5)D	6)B	7)A	8)B
9)B	10)E						

STATEMENTS & ASSUMPTIONS							
1)A	2)B	3)B	4)E	5)B	6)B	7)A	8)B
9)A	10)E						