

Test Series Question Paper-02-03-2024

1. A large tanker can be filled by two pipes P and Q in 60 minutes and 40 minutes respectively. How many minutes will it take to fill the tanker from an empty state if Q is used for half the time and P and Q fill it together for the other half?

- (a) 15 min
- (b) 20 min
- (c) 27.5 min
- (d) 30 min

Ans: d

Exp:

Part filled by (P + Q) in 1 minutes = $(1/60 + 1/40) = 1/24$

Let, the tank be filled in T minutes

So, $T/2(1/24 + 1/40) = 1$

$\Rightarrow T/2 \times 1/15 = 1$

$\Rightarrow T = 30$ minutes

2. Consider the following statements:

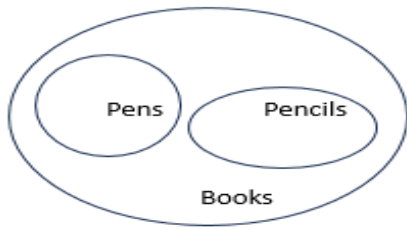
- I. All pens are books
- II. Only a few books are pencils

What can be inferred about the relationship between pen and pencil?

- (a) Definitely, some pens are pencils
- (b) All pens are pencils
- (c) All pencils being books is a possibility
- (d) No conclusion

Ans: c

Exp:



3. Consider the following statements

1. Only a few Suraj are Mohan.
2. Only a Few Mohan are Vikas.
3. All Vikas are Ravi.

Conclusions:

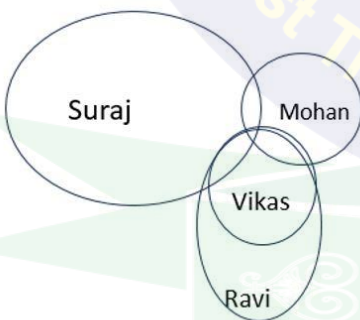
- I. Some Suraj can be Vikas.
- II. All Suraj being Ravi is a possibility.

Which of the following conclusions can be drawn from the above statement?

- (a) Only conclusion I follow.
- (b) Only conclusion II follows.
- (c) Both Conclusion I and II follow.
- (d) Neither conclusion I nor II follows.

Ans: c

Exp:



KHAN SIR

4. Each of the six different faces of a cube has been coated with a different colour i.e. P, Q, R, S, T and U. Following information is given:

- I. Colors T, U and R are on adjacent faces.
- II. Colors Q, S and T are on adjacent faces.
- III. Colors R, S and T are on adjacent faces.
- IV. Colors U, P and R are on adjacent faces.

Which is the colour of the face opposite to the face coloured with “U”?

- (a) R
- (b) P
- (c) S
- (d) Q

Ans: c

Exp:

T is adjacent to U, R, S and Q. Implies T and P must be on opposite faces.

R is adjacent to U, T, S and P. Implies R and Q must be on opposite faces.

Thus, U is opposite to S.

5. All the faces of a cube are painted with pink color. Then it is cut into 216 small equal cubes. How many small cubes will be formed having no face colored?

- (a) 27
- (b) 64
- (c) 25
- (d) 36

Ans: b

Exp:

Number of small cubes = $x^3 = 216$

$x = 6$

Cubes that have no face painted = $(x - 2)^3 = 64$

6. Consider the following statements

1. All bottles are cups.
2. Only a few cups are plates.
3. Some plates are jugs.

Conclusions:

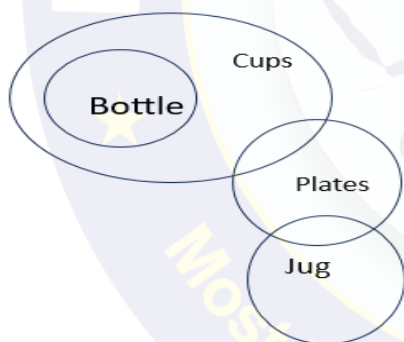
- I. Some jugs are not cups
- II. All plates are bottles.

Which of the following conclusions can be drawn from the above statement:

- (a) Only conclusion II follows.
- (b) Only the conclusion I follow.
- (c) Either conclusion I or II follows.
- (d) Neither conclusion I nor II follows.

Ans: a

Exp:



7. Consider the following statements

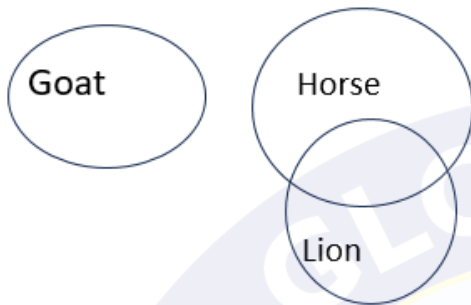
1. No Goat is a horse
2. Some Horse are lions

What conclusion can be drawn about the relationship between Goat and lion?

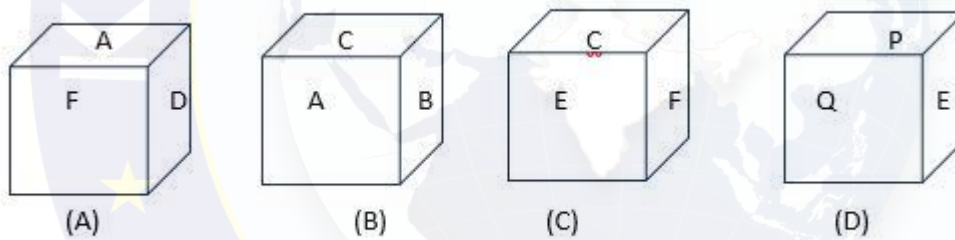
- (a) Some goats are lions.
- (b) All goats are lions is a possibility
- (c) All lions are being goats is a possibility
- (d) Neither a nor b

Ans: d

Exp:



8. A cube has six faces marked A, B, C, D, E and F on its faces. Three views of cube are shown below:



What possible numbers can exist on the two faces marked P and Q, respectively on the cube?

- (a) B and C
- (b) F and A
- (c) A and D
- (d) C and A

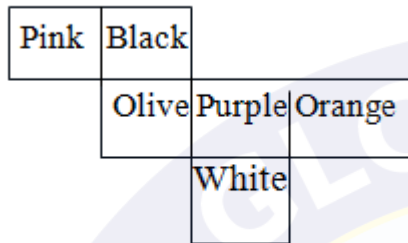
Ans: a

Exp:

A is adjacent to D, F, B, C. Implies that A must be opposite to E.

Now, in fig. (d) E is given this implies that all letters can exist on two faces (P & Q) except A.

9. Six squares are colored, front and back, pink(P), black (B), purple (P), olive (O), white (W) and orange (O) and are hinged together as shown in the figure given below. If they are folded to form a cube, what would be the face opposite the pink face?



- (a) Pink
- (b) Olive
- (c) Black
- (d) Purple

Ans: d

Exp:

From the given figure it can be concluded that:

Olive is the opposite to Orange.

Black is opposite to White.

Hence, purple would be the face opposite to the pink face.

10. Consider the following statements:

1. Some locks are keys.
2. All keys are made from metal.
3. Some metals are hard.

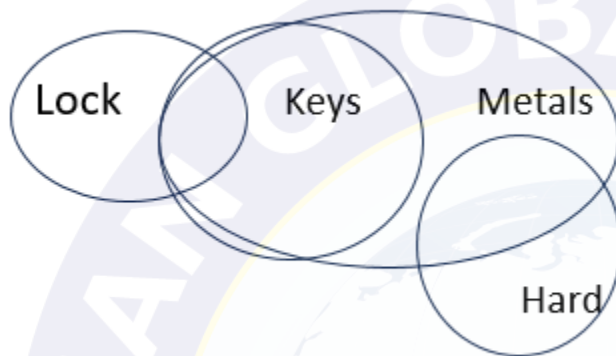
Which of the following conclusions can be drawn from the above statement?

- (a) All locks are Metal
- (b) All keys are hard
- (c) some locks are hard

(d) None of these

Ans: d

Exp:



11. Consider the following statements:

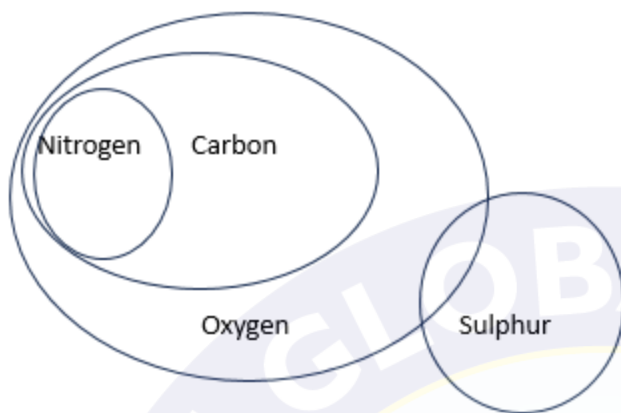
1. All carbon is oxygen.
2. All Nitrogen is carbon.
3. Some oxygen is Sulphur.

Which of the following conclusions can be drawn from the above statement?

- I. All Nitrogen being Sulphur is a possibility.
 - II. All Nitrogen is not oxygen.
- (a) If only the conclusion I follow.
 - (b) If only conclusion II follows.
 - (c) If neither conclusion I nor conclusion II follows.
 - (d) If both conclusions follow.

Ans: d

Exp:



12. If in a certain code 'SHINCHAN' is coded as 'MJSHMBSX' and 'RACE' is coded as 'VXBI'. What will be the code for 'HIMAWARI'?

- (a) ZNRSRIZD
- (b) ZNRSJIBD
- (c) BNJSRIZD
- (d) BNJSJIBD

Ans: d

Exp:

Vowel – Next alphabet

Consonant – opposite alphabet

S	H	I	N	C	H	A	N	R	A	C	E
M	J	S	H	M	B	S	X	V	X	B	I

H I M A W A R I
 B N J S J I B D

13. If pink is called yellow, yellow is called blue, blue is called red, red is called brown and brown is called purple, then, what is the color of the sky?

- (a) Pink
- (b) Red
- (c) Purple
- (d) Yellow

Ans: b

Exp:

We know that color of the sky is blue.

In the question, blue is coded as red.

Hence, the color of the sky is red.

14. Consider the following statements

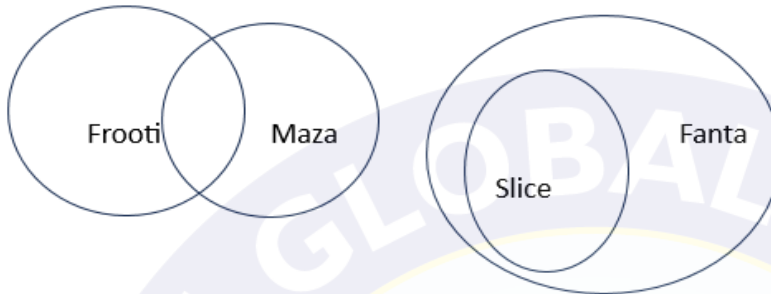
1. Some frooti are Maaza.
2. No Maaza is slice.
3. All slices are fanta.

Which of the following conclusions can be drawn from the above statement?

- I. Some frooti are definitely not slice.
 - II. Some Fanta are definitely not Maaza.
- (a) If only the conclusion I follow.
 - (b) If only conclusion II follows.
 - (c) If neither conclusion I nor conclusion II follows.
 - (d) If both the conclusions follow.

Ans: d

Exp:



15. Consider the following statements:

1. Some balls are bats.
2. No bat is a wicket.

Which of the following conclusions can be drawn from the above statement?

- I. Some wickets are not balls.
 - II. All wickets being ball is a possibility.
- (a) if only the conclusion I follow.
(b) if only conclusion II follows.
(c) if either conclusion I or conclusion II follows.
(d) if neither conclusion I nor conclusion II follows.

Ans: b

Exp:



16. If in a certain code 'HOCKEY' is coded as 19 and 'ROPE' is coded as 5. What will be the code for 'LUXEMBOURG'?

- (a) 62
- (b) 56
- (c) 25
- (d) 36

Ans: c

Exp:

H – 8, O – 15, C – 3, K 11, E – 5, Y – 25 [place values]

By adding all the place values that are prime – $3+11+5 = 19$

R – 18, O – 15, P – 16, E – 5 [place values]

By adding all the place values that are prime = 5

Similarly for LUXEMBOURG = $5+13+7 = 25$

17. RAMOLA: ZZONLI: KAMOLIKA →?

- (a) PZNLORPZ
- (b) PZNLZPRO
- (c) ZZRPPONL
- (d) LNOPPRZZ

Ans: c

Exp:

First, arrange all the letters of 'RAMOLA' in ascending order i.e. 'AALMOR' and then replace these letters with their respective opposite alphabets.

18. Consider the following statements:

- 1. No water is air.
- 2. No fire is water.

Which of the following conclusions can be drawn from the above statement?

- I. No air is fire.
II. All fire is air.
- (a) if only conclusion I follow.
(b) if only conclusion II follows.
(c) if either conclusion I or conclusion II follows.
(d) if neither conclusion I nor conclusion II follows.

Ans: d

Exp:

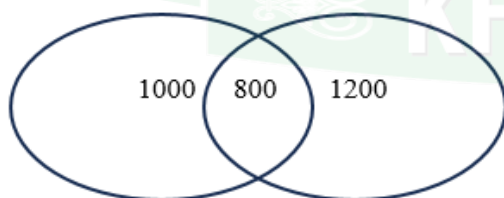


19. In a town with 3000 inhabitants, 1800 people speak Urdu, 2000 speak Maithili, and 800 speak both languages. how many speak only Maithili?

- (a) 1500
(b) 3000
(c) 1200
(d) 900

Ans: c

Exp:



To find the number who speak only Maithili, subtract the number who speak both languages from the total number of Maithili speakers = $(2000 - 800) = 1200$

20. In a certain code 'RUINED' is written as 'TVOJZP' and 'YORKS' is written as 'ACTLB'. How will 'SUNIYO' be coded in that code?

- (a) BVJCOA
- (b) AOCJVB
- (c) BVJOAC
- (d) AOBVJC

Ans: c

Exp:

Here, code for R – T, U – V, I – O, N – J, E – Z, D – P

Also, code for Y – A, O – C, R – T, K – L, S – B

Hence, the code for SUNIYO – BVJOAC.

21. The calendar for the year of 2009 will be the same as that of the year:

- (a) 2012
- (b) 2013
- (c) 2014
- (d) 2015

Ans: d

Exp:

Normal year – 1 odd day.

Leap year – 2 odd days.

Repetition of the calendar year happens every 7 odd days.

Now, 7 odd days can come in 6 years (5 normal years and 1 leap year).

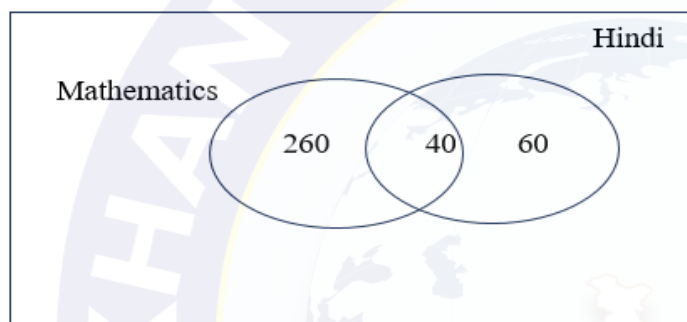
Therefore, a year with the same calendar as 2009 will be $2009 + 6 = 2015$.

22. A group of 400 students has taken either Mathematics or Hindi. If 300 students study Mathematics, 100 study Hindi, and 40 study both subjects, how many students don't study either subject?

- (a) 40
- (b) 25
- (c) 45
- (d) 15

Ans: a

Exp:



To find the number who don't study either subject, subtract the total number of students who study either Mathematics or Hindi from the total number of students. $(400 - 360) = 40$

23. Among 300 participants in a coding competition, 220 use Python, 100 use Java, and 20 use both languages. How many use only Java?

- (a) 45
- (b) 35
- (c) 50
- (d) 80

Ans: d

Exp:

To find the number who use only Java, subtract the number who use both languages from the total number of Java users $(100 - 20) = 80$

24. If the 3rd day of a month is Tuesday, which of the following will be the fifth day from the 21st of the month?

- (a) Wednesday
- (b) Thursday
- (c) Friday
- (d) Saturday

Ans: b

Exp:

Fifth day from 21st = $21+5 = 26$ th day

3rd day is Tuesday = $26-3 = 23$ days

23 days means 3 weeks and 2 days

Tuesday + 2 = Thursday.

25. Which day is 10th October 2027?

- (a) Saturday
- (b) Monday
- (c) Sunday
- (d) Friday ★

Ans: c

Exp:

10.10.2027 = 2026 years + period from 1.1.2027 to 10.10.2027.

Number of odd days: The number of odd days in 2000 years = 0. (odd days is 0 for every 400 years)

Number of odd days in 26 years = 6 leap years + 20 Ordinary years = $6 \times 2 + 20 \times 1 = 32$ days = 4 weeks + 4 days = 4 odd days.

Number of odd days from 1.1.2027 to 10.10.2027 = $31(\text{Jan}) + 28(\text{Feb}) + 31(\text{March}) + 30(\text{April}) + 31(\text{May}) + 30(\text{June}) + 31(\text{July}) + 31(\text{Aug}) + 30(\text{Sep}) + 10(\text{Oct}) = 283$ days = 40 weeks + 3 days = 3 odd days

Total number of odd days till 10.10.2027 = $4+3 = 7$ or we can say Saturday + 1 = Sunday

And odd day for Sunday = 0 odd days.

Therefore, the day on 10th October 2027 is Sunday.

26. In a survey of 300 individuals, 120 like classical music, 150 like rock music, and 50 like both genres, how many like only rock music?

- (a) 70
- (b) 80
- (c) 90
- (d) 100

Ans: d

Exp:

To find the number who like only rock music, subtract the number who like both genres from the total number of rock music lovers $(150 - 50) = 100$

27. In a chess tournament with 180 participants, 100 players know the Sicilian Defense, 80 players know the French Defense and 30 players know both defences. How many players know neither defence?

- (a) 45
- (b) 35
- (c) 20
- (d) 30

Ans: c

Exp:

To find the number who know neither defence, subtract the total number of players who know either the Sicilian or French Defense from the total participants $(180 - 150 = 20)$.

28. A watch that gains uniformly, is 5 min slow at 7 o'clock in the morning on Sunday and it is 5 min 48 s fast at 7 pm on the following Sunday. Which day was it correct?

- (a) Friday
- (b) Wednesday
- (c) Tuesday
- (d) Monday

Ans: b

Exp:

Time from 7 am on Sunday to 7 pm on the following Sunday
= 7 days 12 h = 180 h

Watch gains $(5 + 5 \frac{4}{5})$ min or $5 \frac{4}{5}$ in 180 h.

Now, $5 \frac{4}{5}$ min are gained in 180 h.

5 min gained in $(180 \times \frac{5}{54} \times 5)$ h = 83 h 20 min.

= 3 days 11 h and 20 min

Watch is correct after 3 days 11 h and 20 min after 7 am of Sunday.

It will be correct at 20 min past 6 pm on Wednesday.

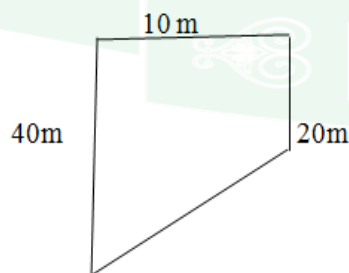
29. Ritu runs 40 m north from her office. Then, she turns right and runs 10 m more, then she turns towards the south and runs 20 m further and finally starts walking towards her office on the shortest possible route. In which direction is she walking now?

- (a) South-east
- (b) South-west
- (c) North-west
- (d) None of the above

Ans: b

Exp:

To find the number who know neither defense, subtract the total number of players who know either the Sicilian or French Defense from the total participants ($180 - 150 = 20$).



30. Among 220 students, 120 study Economics, 80 study History, and 40 study both subjects, how many study only History?

- (a) 40
- (b) 24
- (c) 25
- (d) 55

Ans: a

Exp:

To find the number who study only History, subtract the number who study both subjects from the total number of History students $(80 - 40) = 40$

31. Find the missing number in the below series:

12, 36, 80, 150, _, 392

- (a) 180
- (b) 252
- (c) 272
- (d) 340

Ans: b

Exp:

$$2 \times 2 \times 3 = 12$$

$$\Rightarrow 3 \times 3 \times 4 = 36$$

$$\Rightarrow 4 \times 4 \times 5 = 80$$

$$\Rightarrow 5 \times 5 \times 6 = 150$$

$$\Rightarrow 6 \times 6 \times 7 = \mathbf{252}$$

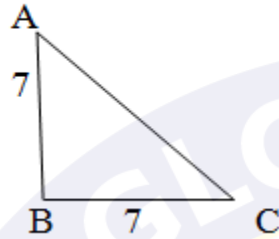
$$\Rightarrow 7 \times 7 \times 8 = 392$$

32. Shruti moves towards the South for a distance of 7 km. She then turned left and travelled 7 km. Then in which direction is she from the starting position?

- (a) At an angle 45 degrees south of East
- (b) At an angle greater than 45 degrees south of East
- (c) At an angle less than 45 degrees south of East

(d) At an angle 45-degree North of East

Ans: a



33. One evening Krishu started walking. She saw a flag post exactly in front of her and its shadow was to her left. In which direction is Krishu walking?

- (a) East
- (b) West
- (c) North
- (d) South

Ans: c

Exp:

Sunsets in the west in the evening. Since the shadow of Krishu falls to her left.

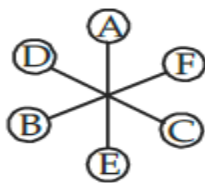
Hence, she is facing North.

34. A, B, C, D, E, and F, not necessarily in that order, are sitting at a round table. A is between D and F, C is opposite to D, and D and E are not on neighboring chairs. If E is sitting between B and C, and F is to the right of C, who is sitting to the right of B?

- (a) A
- (b) C
- (c) D
- (d) E

Ans: d

Exp:



As it can be seen from the figure, C and E are sitting on the neighboring chairs.

35. Seven men, A, B, C, D, E, F and G are standing in a queue in that order. Each one is wearing a cap of a different colour like violet, indigo, blue, green, yellow, orange and red. D is able to see in front of him green and blue, but not violet. E can see violet and yellow, but not red. G can see caps of all colours other than orange. If E is wearing an indigo coloured cap, then the colour of the cap worn by F is:

- (a) Blue
- (b) Orange
- (c) Red
- (d) Violet

Ans: c

Exp:

Following are the possible combinations of the person and cap colour.

A - green/blue/yellow

B - green/blue/yellow

C - green/blue/yellow

D - violet

E - indigo

F - red

G - orange

36. On a playing ground Danish, Kruti, Neha, Alka and Priyam are standing as described below facing the North.

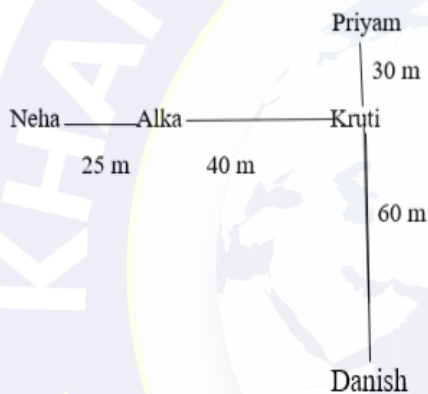
- (i) Kruti is 40 meters to the right of Alka.
- (ii) Danish is 60 meters to the south of Kruti.
- (iii) Neha is 25 meters to the west of Alka.
- (iv) Priyam is 90 meters to the north of Danish.

Who is to the north-east of the person who is second to the left of Kruti?

- (a) Danish
- (b) Priyam
- (c) Alka
- (d) Either Neha or Danish

Ans: b

Exp:



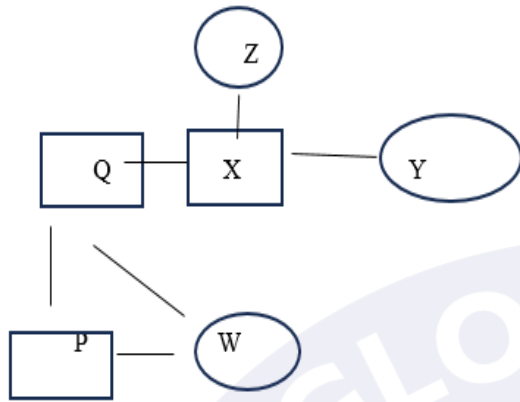
37. X and Y are a married couple, X being the male member. P is the only son of Q, who is the brother of X. W is the sister of P. Y is the daughter-in-law of Z, whose husband has died. How is W related to Q?

- (a) Daughter-in-law
- (b) Daughter
- (c) Aunt
- (d) Mother

Ans: b

Exp:

KHAN SIR

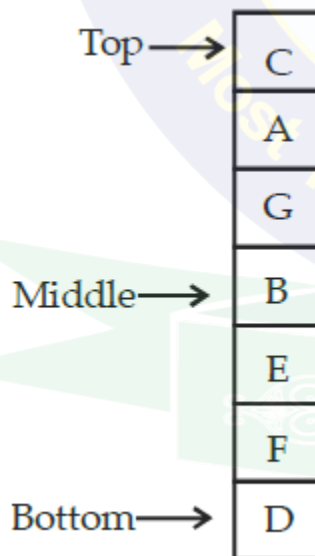


38. There are seven persons up on a ladder, A, B, C, D, E, F, and G (not in that order). A is further up than E but is lower than C. B is in the middle. G is between A and B. E is between B and F. If F is between E and D, and A is to the right of C, who is the person on the bottom step of the ladder?

- (a) B
- (b) F
- (c) D
- (d) E

Ans: c

Exp:



39. Four children are sitting in a row. A is occupying the seat next to B but not next to C. If C is not sitting next to D who is/are occupying seat/seats adjacent to D?

- (a) B
- (b) A
- (c) C
- (d) Can not be determine

Ans: b

Exp:



40. In a pride of lions and its cubs, the eldest lioness is in the 9th position from the left, and the youngest lioness is in the 8th position from the right. The new-born cub sits in the middle of the eldest and youngest, occupying the 15th position from the left. What is the total number of lions in the row?

- (a) 28
- (b) 26
- (c) 25
- (d) 29

Ans: b

Exp:

Considering the new-born cub as the reference point, there are 14 lions to the left and 11 lions to the right, including the cub. Therefore, $14 \text{ (left)} + 1 \text{ (cub)} + 11 \text{ (right)} = 26$.

41. Parul told Tarun, "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 Parul's friend?

- (a) Cousin
- (b) Daughter
- (c) Friend
- (d) Aunt

Ans: a

Exp:

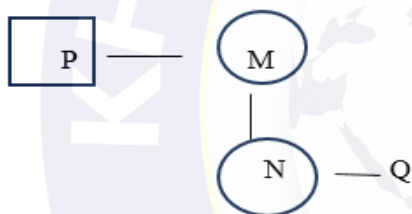
Daughter of brother-in-law – Niece;
Mother's niece – Cousin.
So, the girl is the cousin of Parul's friend.

42. If $A + B$ means A is the mother of B; $A - B$ means A is the brother of B; $A \% B$ means A is the father of B and $A \times B$ means A is the sister of B, which of the following shows that P is the maternal uncle of Q?

- (a) $Q - N + M \times P$
- (b) $P + S \times N - Q$
- (c) $P - M + N \times Q$
- (d) $Q - S \% P$

Ans: c

Exp:



43. In a row, 'A' is in the 11th position from the left, and 'B' is in the 10th position from the right. If 'A' and 'B' interchange positions, 'A' becomes the 18th from the left. How many persons are there in the row other than 'A' and 'B'?

- (a) 27
- (b) 26
- (c) 25
- (d) 24

Ans: c

Exp:

Initially, there were 10 persons to the left of 'A,' and after the interchange, there were 17 persons to the left of 'A.' Therefore, the total number of persons in the row is $17 \text{ (left)} + 1 \text{ ('A')} + 9 \text{ (right)} = 27$

So, the required answer is $27 - 2 = 25$

44. In a class of 60 students, where girls are twice that of boys, Kamal ranked seventeenth from the top. If there are 9 girls ahead of Kamal, how many boys are after him in rank?

- (a) 3
- (B) 7
- (c) 12
- (d) 23

Ans: c

Exp:

Since girls are twice the number of boys, there are 40 girls and 20 boys. Kamal is the 17th student from the top, and among them, 9 are girls. Therefore, the boys ahead of Kamal are 7. (total boys) - 1(Kamal) - 7 (boys ahead) = 12,

Directions (Q45 – Q46): In each of the given questions, one statement has been given followed by two conclusions. Find which of the given conclusions is true.

45. Statement: $L > N$, $N \leq Z = N$, $L = Q < K$

Conclusion I: $K > N$

Conclusion II: $Z \leq K$

- (a) Only conclusion I is true
- (b) Only conclusion II is true
- (c) Neither conclusion I nor II is true
- (d) Either conclusion I or II is true

Ans: a

Exp:

I: $K > N$ (True)

II: $Z \leq K$ (False)

46. Statement: $P > Q$, $X \leq R < S$, $S > P$

Conclusion I: $P \leq R$

Conclusion II: $X > S$

- (a) Only conclusion I is true
- (b) Only conclusion II is true
- (c) Both conclusions I and II are true
- (d) Neither conclusion I nor II is true

Ans: d

Exp:

I: $P \leq R$ (False)

II: $X > S$ (False)

47. 20 students failed in a class of 57. After removing the names of failed students, a merit order list has been prepared, and the position of Ravi is 22nd from the top. What is his position from the bottom?

- (a) 18th
- (b) 17th
- (c) 16th
- (d) 15th

Ans: c

Exp:

After removing the failed students, there are 37 students left. Ravi's position from the bottom is calculated by subtracting his position from the top from the total number of students.

Therefore, 37 (total students) $- 22$ (Ravi's position from the top) $+ 1 = 16$.

48. In a town, 200 people are surveyed. 80 read the newspaper, 60 watch TV, and 40 do both. If 25% of the total started reading newspapers, how many people neither read the newspaper nor watch TV?

- (a) 100
- (b) 80
- (c) 60
- (d) 90

Ans: b

Exp:

$$40+40+20+20=120$$

$$200-120=80$$

Directions (Q49 – Q50): In the following questions, the symbols #, *, %, @ and © are used with the following meaning:

A # B means A is greater than B

A * B means A is smaller than B

A % B means A is equal to B

A @ B means A is greater than equal to B

A © B means A is smaller than equal to B

49. Statement: W © X @ Y # Z

Conclusion I: W @ Z

Conclusion II: Z * X

- (a) Only conclusion I am true
- (b) Only conclusion II is true
- (c) Both conclusions I and II are true
- (d) Either conclusion I or II is true

Ans: b

Exp:

$$W \leq X = Y > Z$$

I: $W \geq Z$ (False)

II: $Z < X$ (True)

50. Statement: P%Q© R*T@S%W

Conclusion I: P# S

Conclusion II: S # Q

- (a) Only conclusion I is true
- (b) Only conclusion II is true

- (c) Both conclusions I and II are false
- (d) Either conclusion I or II is true

Ans: c

Exp:

$$P=Q<=R<T>=S=W$$

I: $P>S$ (False)

II: $S>Q$ (False)

51. Five friends Punit, 'Queen', 'Reeta', 'Seema' and 'Tina' are sitting in a row facing North. Here 'Seema' is between 'Tina' and 'Queen' and 'Queen' is to the immediate left of 'Reena'. 'Punit' is to the immediate left of 'Tina'. Who is in the middle?

- (a) Seema
- (b) Tina
- (c) Queen
- (d) Reeta

Ans: a

Exp:



52. What will be the next term of the given series 10, 17, 36, 73, _.

- (a) 125
- (b) 94
- (c) 134
- (d) 124

KHAN SIR

Ans: c

Exp:

$$10 = 1^3 + 9$$

$$17 = 2^3 + 9$$

$$36 = 3^3 + 9$$

$$73 = 4^3 + 9$$

$$134 = 5^3 + 9$$

Directions for questions 53- 54: In each of the following questions, a statement followed by two assumptions is given. You have to choose an assumption that follows the statement.

53. Statement: Do not throw the garbage outside the dustbin.

Assumptions:

(I) It is possible to throw the garbage outside the dustbin.

(II) Such a warning will have some effect.

(a) Only assumption I is implicit

(b) Only assumption II is implicit

(c) Neither I nor II is implicit

(d) Both I and II are implicit

Ans: d

Exp:

If it was not possible to throw the garbage outside the dustbin, there would be no need for the notice.

Likewise, the notice would not be placed if the warning would have no impact.

Hence, I & II both are implicit.

54. Statement: Riya wrote to her sister in Pune to collect personally the application form for the research degree in Microbiology from the University.

Assumptions:

1. It may be possible that the University will not accept the application forms from a person other than the prospective student.

2. It may be possible that Riya's sister may receive the letter well before the last date for collecting application forms.

- (a) Only assumption I is implicit
- (b) Only assumption II is implicit
- (c) Either I or II is implicit
- (d) Both I and II are implicit

Ans: d

Exp:

Since Riya has asked her sister to collect the form, it is evident that the university may issue the form to anybody and that Riya's sister would receive the letter before the last date of collecting the forms.

So, both I and II are implicit

55. What will come in place of "?" in the below-given series

17, 52, 113, 206, ?.

- (a) 273
- (b) 311
- (c) 384
- (d) 337

And: d

Exp:

$$2^3 + 3^2 = 17$$

$$3^3 + 5^2 = 52$$

$$4^3 + 7^2 = 113$$

$$5^3 + 9^2 = 206$$

The next term will be $6^3 + 11^2 = 337$

56. What will come in place of the question mark (?)

10, 18, 57, ?, 1125

- (a) 224
- (b) 148
- (c) 195
- (d) 388

Ans: a

Exp:

$$9 * 1 + 1 = 10$$

$$10 * 2 - 2 = 18$$

$$18 * 3 + 3 = 57$$

$$\text{Next term} = 57 * 4 - 4 = 224$$

Directions for questions 57- 58: In each of the following questions, a statement followed by two conclusions is given. You have to choose a conclusion that follows the statement. Choose

57. Statement: The New Zealand cricket team scored 240 runs out of which Daniel Vettori scored 94 runs.

Conclusion:

I: Daniel Vettori scored the highest runs.

II: The New Zealand team will win the match.

- (a) If only the conclusion I follow.
- (b) If only conclusion II follows.
- (c) If either I or II follows.
- (d) If neither I nor II follows

Ans: d

Exp:

From I: We can't say that Daniel Vettori scored the highest runs.

From II: It is not clear from the data that New Zealand won the match.

Hence, neither I nor II follows.

58. Statement: Krutika took part in a State-level dancing competition and won it.

Conclusion I: Krutika is the best dancer in the country

Conclusion II: Krutika is also a good singer.

- (a) Only conclusion I follow
- (b) Only conclusion II follows
- (c) Both conclusions I and II follow
- (d) Neither conclusion I nor II follows

Ans: d

Exp:

Winning the state-level dancing competition cannot conclude that she is the best dancer in the country and neither does the statement give any information about her singing skills.

59. A, B, C, D, E and F are sitting in a row. 'E' and 'F' are in the centre and 'A' and 'B' are at the ends. 'C' is sitting on the left of 'A'. Then who is sitting on the right of 'B'?

- (a) A
- (b) D
- (c) E
- (d) F

Ans: b

Exp:

A ---C—E—F—D—B

A and B are at the ends

E, F ARE IN THE CENTER. C IS LEFT OF A. ONLY ONE PLACE REMAINS TO BE FILLED BY D.

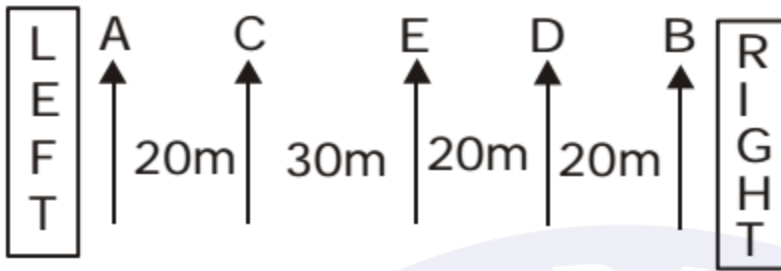
60. A, B, C, D and E are standing in a line facing North. E is standing 40 metres left to B. A is standing 20 metres left to C. D is standing 20 metres right to E and 50 metres right to C. Where is B standing from D?

- (a) 20 metres right
- (b) 30 metres right
- (c) 40 metres right
- (d) 40 metres left

Ans: a

Exp:

Draw a figure based on the above-given question,
E is standing 40 metres left to B. A is standing 20 metres left to C. D is standing 20 metres right to E and 50 metres right to C.



61. How many triangles are there in this figure?



- (a) 12
- (b) 16
- (c) 9
- (d) 8

Ans: b

Exp:

Small triangles = 12

Total big triangles = 4

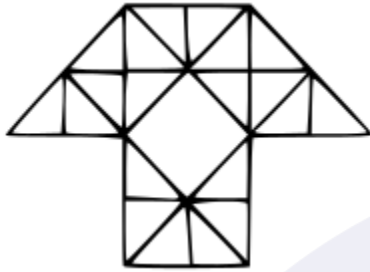
Total triangles = $4 + 12 = 16$



KHAN SIR



62. How many triangles are there in this figure?



- (a) 29
- (b) 38
- (c) 40
- (d) 35

Ans: c

Exp:

Small triangle = 30

Big triangles = 10

Total triangles = 40

63. Five policemen are standing in a row facing south. Shekhar is to the immediate right of Dhanush. Bala is between Basha and Dhanush. David is at the extreme right end of the row. Who is standing in the middle of the row?

- (a) Bala
- (b) Basha
- (c) Shekhar
- (d) Dhanush

Ans: d

Exp:

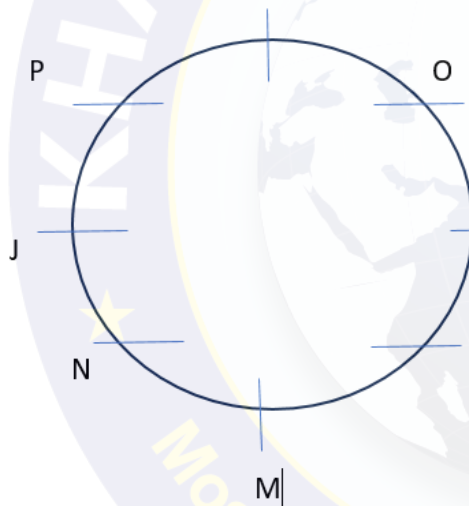


64. Eight people J, K, L, M, N, O, P and Q are sitting around a circular table, facing the centre, not necessarily in the same order. O is sitting third to the right of M. Only one person is sitting between M and J. There are only three people between J and K. P is an immediate neighbour of J. There are only three people between P and L. N is second to the right of P. Which of the following is true regarding the given arrangement?

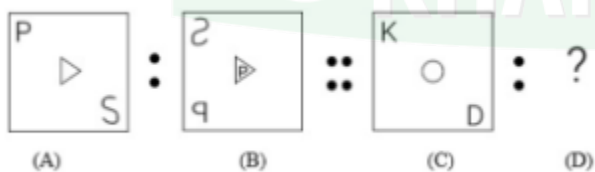
- (a) There are four people between N and O.
- (b) M is an immediate neighbour of K.
- (c) P is second to the left of O.
- (d) N is an immediate neighbour of J.

Ans: d

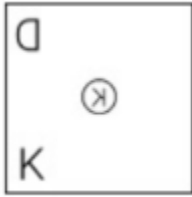
Exp:



65. Figure A is related to B in a certain pattern. Following the same pattern, figure C is related to D. Study the pattern and select the figure that should be placed in place of D.



(a)



(b)



(c)



(d)



Ans: b

Exp:

Middle letter = same as the letter on the top left corner.

Letters are forming mirror image.

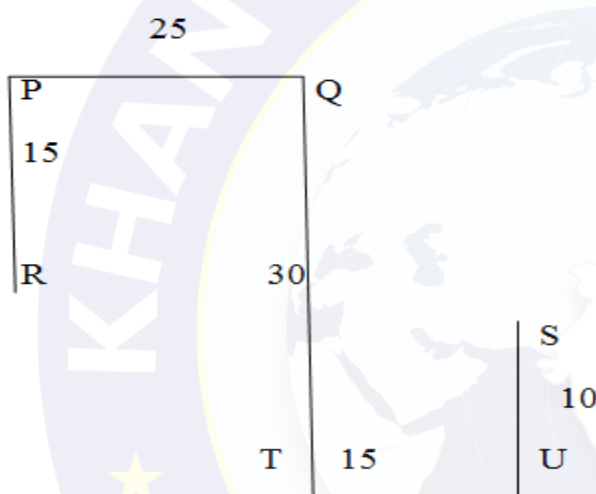
Top left letter goes to bottom left and bottom right letter goes to top left.

66. Ritu walked 15 m towards the north. Then he turned right and walked 25 m. Then she turns right and walks 30 m. Then she turns left and walks 15 m. Finally, he turns left and walks 10 m. In which direction and how many metres is she from the starting position?

- (a) 15 m West
- (b) 30 m East
- (c) 30 m West
- (d) **40 m East**

Ans: d

Exp:



67. Select the option that is related to the third term in the same way as the second term is related to the first term.

H18J: J22L:: P34R : ?

- (a) R36T
- (b) T38V
- (c) R38V
- (d) **R38T**

Ans: d

Exp:

H18J $\rightarrow \rightarrow$ H + 2 = J and H + J = 18 J22L $\rightarrow \rightarrow$ J + 2 = L and J + L = 22 The first letter of second term is the second letter of first term. Similarly, the first letter of the fourth term should

Similarly, the first letter of the fourth term should be the second letter third term. $\Rightarrow \Rightarrow$ First letter of fourth term = Second letter of third term = R...

Using the above logic, $R + 2 = T$ and $R + T = 38$ Second letter of the fourth term = T Number in the middle of the fourth term = 38 $\therefore R38T$ is related to $P34R$ in the same way $J22L$ is related to $H18J$

68. If “S” denotes “multiplied by”, “V” denotes “subtracted from”, “M” denotes “added to” and “L” denotes “divided by”, then $8 \text{ V } 10 \text{ M } 96 \text{ L } 6 \text{ S } 9 = ?$

- (a) 142
- (b) 120
- (c) 88
- (d) 224

Ans: a

Exp:

$$8 - 10 + 96 \div 6 \times 9 = 142$$

69. Which is the next letter in the given alphanumeric series?

B, 25, D, 23, G, 19, K, 13, ?

- (a) L
- (b) P
- (c) N
- (d) Q

Ans: b

Exp:

For alphabets: $B + 2 = D$

$$D + 3 = G$$

$$G + 4 = K$$

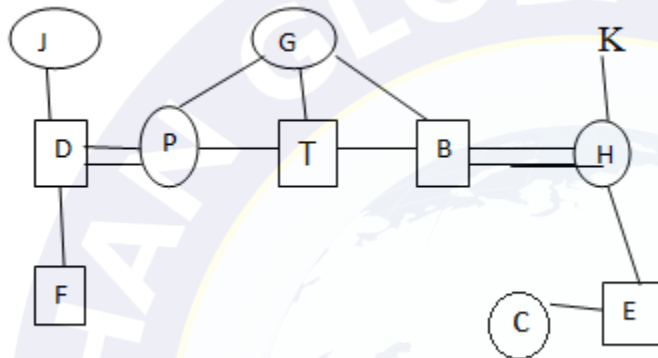
$$K + 5 = P$$

70. There are ten members P, B, C, D, E, F, G, H, T and J in the family. There are three generations of the family. There is an equal number of males and females. P is the daughter-in-law of J. B's brother T has only one sister P. H and B are a married couple. H is the mother-in-law of C. G is the mother of B. D is the son-in-law of G. C is the sister of E. F is the only son of D. If B is the son-in-law of K. Then how is K related to C?

- (a) Mother
- (b) Grandmother
- (c) Grandfather
- (d) Can not be determined

Ans: d

Exp:



71. $A < N = U > F > B > H$

Conclusions:

I. $H < N$ (true)

II. $F > A$ (false)

- (a) Conclusion I is true
- (b) Conclusion II is true
- (c) Conclusion I is true and Conclusion II is false.
- (d) Neither Conclusion I nor Conclusion II are true.

Ans: a

Exp:

Only Conclusion I is true because we can't say that $F > A$ is false

72. $T < S < D = Q$,

$T \neq P = X < Z < R$,

Conclusions:

I. $X < D$

II. $Q > P$

- (a) Conclusion I is true
- (b) Conclusion II is true
- (c) Both Conclusion I and Conclusion II are true
- (d) Neither Conclusion I nor Conclusion II are true

Ans: d

Exp:

As we can't say $X < D$ or $Q > P$

73. A solves 5 questions per minute and starts solving at 2 pm. B solves 6 questions per minute and starts solving at 2.15 pm, the same day. When would they have solved the same number of questions?

- (a) 3.40 pm
- (b) 3.35 pm
- (c) 3.45 pm
- (d) 3.30 pm

Ans: d

Exp:

Let it be the number of minutes asked

So, $5 \times 15 + 5 \times t = 6t$

$T = 75$

1:15 hr.

Required time = 3: 30 pm

74. Assuming the given statement to be true, select inference as one of the options.

Statement: Tarun will go to the park on even dates.

Inference: Tarun will go to the park on the last day of February.

- (a) Uncertain
- (b) FALSE
- (c) Irrelevant
- (d) TRUE

Ans: a

Exp:

The last day of February can 28th or 29th, not always an even date. So, this is uncertain.

75. Given below is a statement followed by 2 inferences. Choose the inference that can be inferred from the given statement by selecting the right option.

Statement: Out of 20 students in a class, 15 passed in English and 18 passed in mathematics.

Inferences:

- I. few students passed in both the subjects
- II. No student failed in both subjects.

- (a) Both inferences I and II follow
- (b) The only inference I follow
- (c) Only inference II follows
- (d) Neither inference I nor Inference II follows

Ans: b

Exp:

The only inference I follow, inference II may not follow because 2 students can fail the examination.

76. Read the information given below and answer the questions that follow.

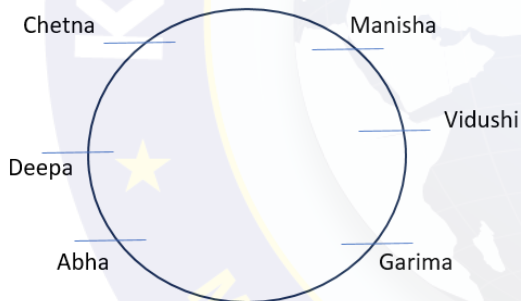
Six girls, Abha, Vidushi, Chetna, Garima, Deepa and Manisha sit in a circle facing each other to play the game of Chinese Whisper (not in the given order). Abha is sitting opposite Manisha and to the left of Chetna. Deepa is not adjacent to either Garima or Vidushi. Vidushi is not adjacent to Abha.

If every player has to say the message in the ear of the person sitting to his right, then in whose ear will Garima speak?

- (a) Abha
- (b) Vidushi
- (c) Chetna
- (d) Data not sufficient

Ans: a

Exp:



77. There are 24 steps in a temple. By the time Chithra comes down two steps, Madhu goes up one step. If they start simultaneously and keep their speed uniform, then at which step from the bottom will they meet?

- (a) 9th step
- (b) 12th step
- (c) 13th step
- (d) 8th step

Ans: d

Exp:

$$2+1 = 3$$

$$3 \times 8 = 24$$

So, they will meet at the 8th step

78. A, B, C and D are to be seated in a row. But C and D cannot be together. Also, B cannot be in the third place from left.

Which of the following must be false?

- (a) A is the first place
- (b) A is at the second place
- (c) A is the third place
- (d) A is in the fourth place

Ans: a

Exp:

In the given, it is stated that C and D cannot sit adjacent to each other and B cannot sit at third place.

Hence, the arrangement can be of:

B, C, A, D ★

C, B, D, A

C, A, D, B

Option (a) does not satisfy the given conditions.

79. Statement: Most long-distance runners practice cardio training regularly.

Assumptions: I. Cardio training is useful for long-distance running.

Assumptions: II. Without cardio training, long-distance running is impossible.

- (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

Ans: a

Exp:

If only assumption I am implicit because we can't say anything about assumption II with 100 % surety

80. There are thirteen 2-digit consecutive odd numbers. If 39 is the mean of the first five such numbers, then what is the mean of all the thirteen numbers?

- (a) 47
- (b) 49
- (c) 51
- (d) 45

Ans: (a)

Exp:

For an odd number of consecutive numbers, the mean is the central number. Here mean of the first five numbers is 39 which means that the third number is 39. For 13 consecutive numbers, the mean shall be the 7th number. Now the third number is 39, the fourth shall be 41, the fifth shall be 43, the sixth shall be 45 and the seventh shall be 47