

# Rajasthan RVUNL

## Reasoning

Top 100+ Most Expected Questions



1. Sudha correctly remembers that her mother's birthday is after fourteenth April but before nineteenth April whereas her brother correctly remembers that their mother's birthday is before sixteenth April but after twelfth April. On which date in April was definitely their mother's birthday?
- A. Fourteenth  
B. Fifteenth  
C. Sixteenth  
D. Data inadequate  
E. None of these

Ans. B

Sol. Sudha remembers of her mother's age : Between 14<sup>th</sup> and 19<sup>th</sup>  
Brother remembers of her mother's age: Between 12<sup>th</sup> and 16<sup>th</sup>  
Mother's age=Between 14<sup>th</sup> and 16<sup>th</sup> =15<sup>th</sup>

2. Among five friends, A, B, C, D, and E, sitting around a circular table, facing the center, who sits to the immediate right of A?
- I. E sits third to the right of D. A is not an immediate neighbor of D.  
II.C sits second to the left of B. A is not an immediate neighbor of C.
- A. Data in statement I alone is sufficient to answer the question while data in statement II alone is not sufficient to answer the question.  
B. If Data in statement II alone is sufficient to answer the question while data in statement I alone is not sufficient to answer the question.  
C. If Data in either Statement I alone or Statement II alone is sufficient to answer the question.  
D. If Data in neither Statement I alone or Statement II alone is sufficient to answer the question.  
E. If Data in both Statement I and Statement II together are necessary to answer the question.

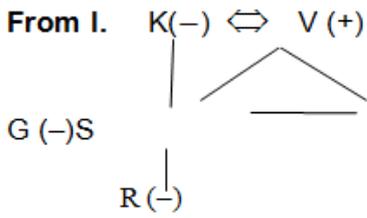
Ans. A

Sol. By data of Statement I alone position of A's neighbors can be determined. Hence option A is correct.

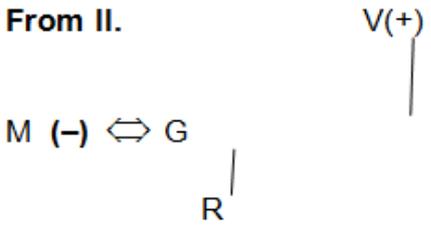
3. Directions: Each question consists of a question and two statements numbered I and II given below it. You have to decide whether the data give it the statements are sufficient to answer the question. Read both the statements and choose the most appropriate option. How is V related to R?
- I. R is the daughter of G. G and S are children of K. V is husband of K.  
II. M is married to G. M is mother of R. V is father of G.A. The data either in statement I alone or in statement II alone are sufficient to answer the question.
- B. The data in statement II alone are sufficient to answer the question while the data in statement I alone are not sufficient to answer the question.  
C. The data in statement I alone are sufficient to answer the question while the data in statement II alone are not sufficient to answer the question.  
D. The data even in both statements I and II together are not sufficient to answer the question.  
E. The data in both the statements1 and H together are necessary to answer the question.

Ans. B

Sol.



Hence V is either maternal or paternal grandfather of R. Hence I alone is not sufficient to answer the question.



Thus, V is paternal grandfather of R. Hence II alone is sufficient to answer the question.

4. Directions: Each of the questions below consists of a question, followed by two statements numbered I and II. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and give the answer –

What is the distance between A and B if A, B and C lie in a straight line, not necessarily in the same order?

- I. A is 300 m from C
  - II. C is 150 m from B
- A. the data in Statement I alone is sufficient to answer the question, while the data in Statement II alone is not sufficient to answer the question.
  - B. the data in Statement II alone is sufficient to answer the question, while the data in Statement I alone is not sufficient to answer the question.
  - C. the data given in Statement I alone or in Statement II alone is sufficient to answer the question.
  - D. the data given in both the Statements I and II together is not sufficient to answer the question.
  - E. the data in both the Statements I and II together is necessary to answer the question.

Ans. D

Sol. Since, the order of A, B and C is not defined, we cannot find the distance between A and B.

5. Direction: Each of the questions given below consists of a question and two statements numbered I and II. You have to decide whether the data provided in the statements are sufficient to answer the question.

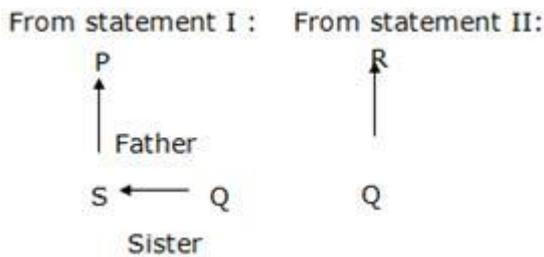
How many females are there in the family of four people (P, Q, R and S) consisting of a married couple and two children?

- I. P is father of S. S is sister of Q.
- II. R is mother of Q.

- A. The data in Statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
- B. The data in Statement II alone are sufficient to answer the question, while the data in Statement I alone are not sufficient to answer the question.
- C. The data in either Statement I alone or Statement II alone are sufficient to answer the question.
- D. The data in both the Statements I and II are not sufficient to answer the question.
- E. The data in both the Statements I and II are together necessary to answer the question.

Ans. D

Sol.



From statement I and II, we can only find the gender of P, S and R but gender of Q cannot be determined.

Thus, we cannot find the exact number of females in the family.

6. Direction: what should come in the place question mark in question given below?

9, 738, 226, ?, 353, 478

- A. 453
- B. 243
- C. 569
- D. 756
- E. 659

Ans. C

Sol.  $9 + (9)^3 = 738$

$738 - (8)^3 = 226$

$226 + (7)^3 = 569$

$569 - (6)^3 = 353$

$353 + (5)^3 = 478$

7. Direction: What should come in place of question mark (?) in the following number series?

2, 6, 33, 49, 174, 210, ?

- A. 553
- B. 426
- C. 274
- D. 259
- E. None of these

Ans. A

Sol. The pattern of the series is:

$$2 + 2^2 = 6$$

$$6 + 3^3 = 33$$

$$33 + 4^2 = 49$$

$$49 + 5^3 = 174$$

$$174 + 6^2 = 210$$

$$210 + 7^3 = 553$$

Thus, the missing number is 553.

8. Directions (76-80): Find out the next number in place of question mark (?) in the following number series.

2, 10, 34, 120, 500, ?

- A. 2220
- B. 2320
- C. 2420
- D. 2520
- E. None of these

Ans. D

Sol.  $(2+8) \times 1 = 10$

$$(10+7) \times 2 = 34$$

$$(34+6) \times 3 = 120$$

$$(120+5) \times 4 = 500$$

$$(500+4) \times 5 = 2520$$

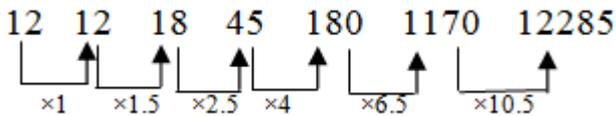
9. Directions: What should come in place of question mark (?) in the following number series?

12, 12, 18, 45, 180, 1170, ?

- A. 12285
- B. 10530
- C. 11700
- D. 12870
- E. 7605

Ans. A

Sol.



So, ? = 12285

10. Direction: What should come in place of question mark (?) in the following number series?

9, 31, 73, 141, 241, ?

- A. 379
- B. 289
- C. 734
- D. 962
- E. 472

Ans. A

$1^2+2^3 = 9$

$2^2+3^3 = 31$

$3^2+4^3 = 73$

$4^2+5^3 = 141$

$5^2+6^3 = 241$

$6^2+7^3 = 379$

11. Direction: Study the information given below and answer the questions based on it.

Ten students M, N, O, P, Q, R, S, T, U and V are standing in a queue. Each of these ten students studies in a different class from 1<sup>st</sup> to 10<sup>th</sup>. No two students study in same class. U who is in class 10<sup>th</sup> is standing 2<sup>nd</sup> in the queue and three places ahead of V. O is two classes senior to P and is standing just ahead of her. R is in class 5<sup>th</sup> and is standing 4 places ahead of Q. S is in class 2 and is standing just ahead of O who is standing ahead of the student who is in class 9. It is also known that:

- i. M is not in class 3 and is standing two places ahead of the student who is in class 1.
- ii. R is not standing ahead of V who is standing 2 places ahead of S.
- iii. Five people are standing between class 9<sup>th</sup> and class 3<sup>rd</sup> student.
- iv. T is in class 4<sup>th</sup>. |||End|||

Who is in Class 9?

- A. N
- B. O
- C. M
- D. Q
- E. Can't be determined

Ans. D

Sol. U who is in class 10<sup>th</sup> is standing 2<sup>nd</sup> in the queue and three places ahead of V.

V who is standing 2 places ahead of S.

S is in class 2 and is standing just ahead of O .

O is standing just ahead of P.

R is in class 5<sup>th</sup> and is standing 4 places ahead of Q.

M is not in class 3 and is standing two places ahead of the student who is in class 1.

Five people are standing between class 9<sup>th</sup> and class 3<sup>rd</sup> student.

T is in class 4<sup>th</sup>.

O is two classes senior to P

Position	1	2	3	4	5	6	7	8	9	10
Student	T	U	M	N	V	R	S	O	P	Q
Class	4	10	7	3	1	5	2	8	6	9

12. Who is in class 6<sup>th</sup> ?

- A. O
- B. Q
- C. P
- D. N
- E. None of These

Ans. C

Sol. U who is in class 10<sup>th</sup> is standing 2<sup>nd</sup> in the queue and three places ahead of V.

V who is standing 2 places ahead of S.

S is in class 2 and is standing just ahead of O .

O is standing just ahead of P.

R is in class 5<sup>th</sup> and is standing 4 places ahead of Q.

M is not in class 3 and is standing two places ahead of the student who is in class 1.

Five people are standing between class 9<sup>th</sup> and class 3<sup>rd</sup> student.

T is in class 4<sup>th</sup>.

O is two classes senior to P

Position	1	2	3	4	5	6	7	8	9	10
Student	T	U	M	N	V	R	S	O	P	Q
Class	4	10	7	3	1	5	2	8	6	9

13. Who are the neighbors of N?

A. R, V

B. S, U

C. O, M

D. M, V

E. Can't be determined

Ans. D

Sol. U who is in class 10<sup>th</sup> is standing 2<sup>nd</sup> in the queue and three places ahead of V.

V who is standing 2 places ahead of S.

S is in class 2 and is standing just ahead of O .

O is standing just ahead of P.

R is in class 5<sup>th</sup> and is standing 4 places ahead of Q.

M is not in class 3 and is standing two places ahead of the student who is in class 1.

Five people are standing between class 9<sup>th</sup> and class 3<sup>rd</sup> student.

T is in class 4<sup>th</sup>.

O is two classes senior to P

Position	1	2	3	4	5	6	7	8	9	10
Student	T	U	M	N	V	R	S	O	P	Q
Class	4	10	7	3	1	5	2	8	6	9

14. Direction: Study the following information carefully and answer the questions given below:

Seven friends S, T, U, V, W, X, and Y like seven different subjects, viz English, Computer, Physics, Chemistry, Biology, Math and History but not necessarily in the same order. Each of them likes different colours, viz Red, Pink, Blue, Green, Yellow, Black, and Purple but not necessarily in the same order. U likes Blue but he does not like Computer or History. T likes Chemistry but he does not like either Purple or Black. W likes Biology and Red Colour. The one who likes Green also likes Math. V likes English. Y like Pink Colour. S does not like Math. The one who likes Black also likes Computer.

S likes which of the following colour?

- A. Blue
- B. Green
- C. Black
- D. Can't be determined
- E. None of these

Ans. C

- Sol. 1) U likes Blue but he does not like Computer or History.  
2) V likes English.  
3) Y like Pink Colour.  
4) T likes Chemistry but he does not like either Purple or Black.  
5) W likes Biology and Red Colour.

Person	Colour	Subject
S		
T		Chemistry
U	Blue	
V		English
W	Red	Biology
X		
Y	Pink	

- 6) The one who likes Green also like Math.  
7) S does not like Math.

S does not likes Maths so, X likes green and maths.

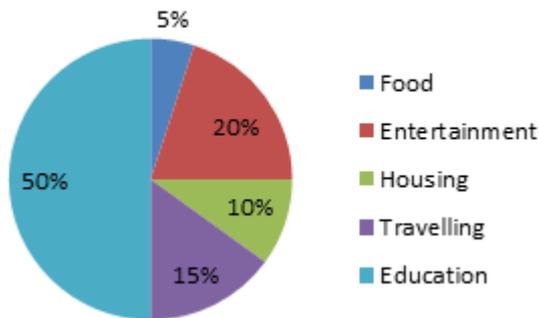
Person	Colour	Subject
S		
T		Chemistry
U	Blue	
V		English
W	Red	Biology
X	Green	Maths
Y	Pink	

8) The one who likes Black also likes Computer.

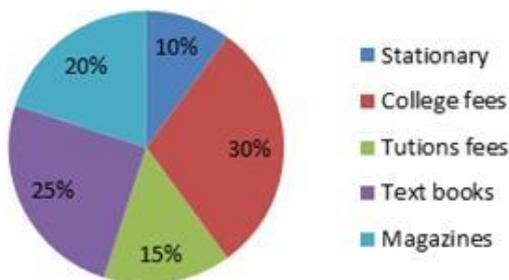
Person	Colour	Subject
S	Black	Computer
T	Yellow	Chemistry
U	Blue	Physics
V	Purple	English
W	Red	Biology
X	Green	Maths
Y	Pink	History

15. Direction: The questions are based on the following pie charts.

**Chart A**



**Chart B**



**Chart C**

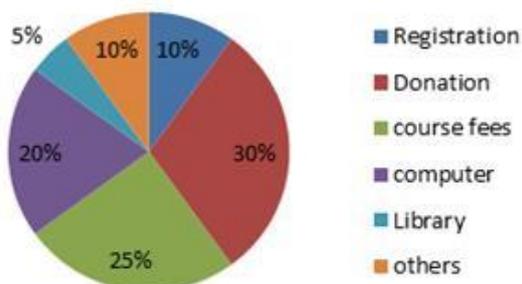


Chart A indicates the distribution of annual expenses of a person doing his graduation

Chart B indicates the distribution of 'Educational expenses'

Chart C indicates the distribution of 'College fees'

If the total of Rs.10000 is spent on Food, then the amount paid towards computer is what percentage of the amount spent towards entertainment?

- A. 17.5
- B. 14
- C. 18.75
- D. 15
- E. None of these

Ans. D

Sol. Traditional Approach:

∴ Amount spent on Food = Rs. 10000

∴ Percentage spent on Food = 5%

Since 5% represents Rs. 10000

∴ 100% represents =  $10000 \times 10 / 5 = \text{Rs. } 200000$

∴ Annual expenses of a person doing his graduation = Rs. 200000

∴ Amount spent on Entertainment = 20% of 200000 = Rs. 40000

∴ Educational Expense = 50% of 200000 = Rs. 100000

∴ Amount spent on College fees = 30% of 100000 = Rs. 30000

∴ Amount spent on Computers = 20% of 30000 = Rs. 6000

∴ Required Percentage =  $6000 / 40000 = 15\%$

Short - cut :

Required percentage =  $20\% \text{ of } 30\% \text{ of } 50 * 100 / 30 = 15\%$

16. Using the information in the previous question, find the total amount spent on Magazines?
- A. Rs. 1250
  - B. Rs. 12500
  - C. Rs. 20000
  - D. Rs. 5000
  - E. None of these

Ans. C

Sol. According to the previous question:

∴ Annual expenses of a person doing his graduation = Rs. 200000

∴ Educational Expense = 50% of 200000 = Rs. 100000

∴ Amount spent on Magazines = 20% of 100000 = Rs. 20000

17. If amount spent on Donation is Rs. 4500, then find the average amount spent on Housing, Travelling, Text books and Registration together?
- A. Rs. 9750
  - B. Rs. 18000
  - C. Rs. 4500
  - D. Rs. 8000
  - E. None of these

Ans. A

Sol. ∴ Amount spent on Donation = Rs. 4500

∴ Percentage spent on Donation = 30%

Since 30% represents Rs. 4500

∴ 100% represents =  $4500 \times 100 / 30 = \text{Rs. } 15000$

∴ Amount spent on College fees = Rs. 15000



Option II:

$$\therefore \text{Amount spent on food} = \left(\frac{5}{100}\right)(\text{total expenses})$$

$$\therefore \text{Amount spent on stationery} = \left(\frac{10}{100}\right)\left(\frac{50}{100}\right)(\text{total expense}) = \left(\frac{5}{100}\right)(\text{total expenses})$$

$\therefore$  Option II is true

Option III:

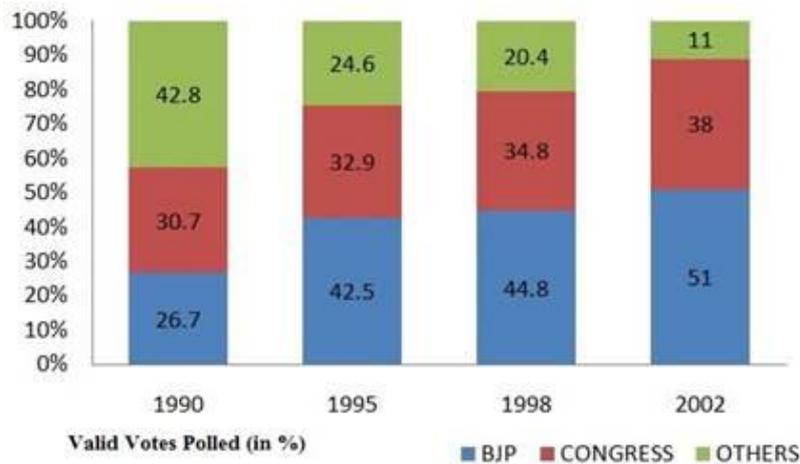
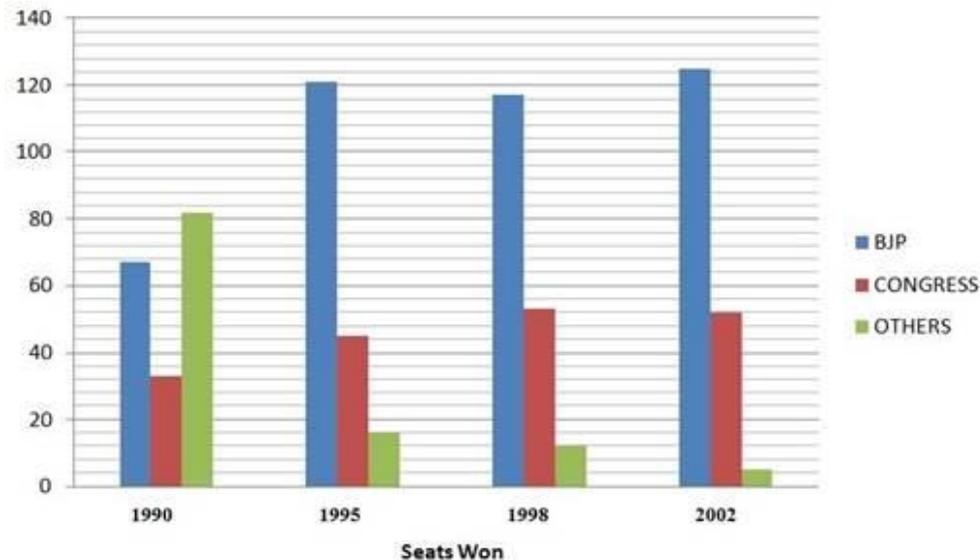
$$\therefore \text{Amount spent on travelling} = \left(\frac{15}{100}\right)(\text{total expenses})$$

$$\therefore \text{Amount spent on college fees} = \left(\frac{30}{100}\right)\left(\frac{50}{100}\right)(\text{total Expenses}) = \left(\frac{15}{100}\right)(\text{total expenses})$$

$\therefore$  Amount spent on travelling is equal to the amount spent on college Fees

$\therefore$  Option III is true.

20. Direction: Study the below given graphs carefully and answer the following questions. The graphs shows the seats won and the percentage of valid votes polled for different political parties in Gujarat in previous elections.



If the total number of valid votes in 2002 Gujarat election were 5 crore, then find the average number of votes for winning one seat for other political parties

- A. Data is inadequate
- B. 1.10 lakh
- C. 1.10 crore
- D. 11 lakh
- E. Cannot be determined

Ans. D

Sol. Total valid votes polled in 2002 = 5 crore

Votes received by others = 11% of 5 crore  
= 55 lakh

Seats won by Others = 5

So required average = (55 lakh/5) = 11 lakh

21. Select the related word/letter/number from the given alternatives.

Doctor : Patient : :

- A. Engineer : Computer
- B. Lawyer : Judge
- C. Crop : Farmer
- D. Pilot : Plane

Ans. A

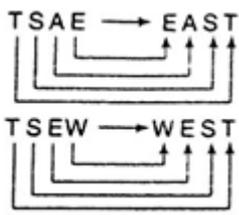
Sol. Doctor diagnoses the ailment of patient and suggests medicines. Similarly, engineer can address the defects of computer.

22. Direction: Select the related word/letter/number from the given alternatives.

TSAE : TSEW : : HTRON : ?

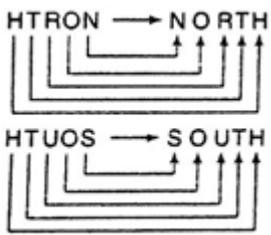
- A. HTUSO
- B. HTUOS
- C. HTOUS
- D. HTSOU

Ans. B



Sol.

Similarly,



23. In the following question, select the related word from the given alternatives.

palaeontology : Fossil : : Phrenology : ?

- A. Skull
- B. Pancreas
- C. Thyroid
- D. Lungs

Ans. A

Sol. Palaeontology is the study of fossils. Similarly, Phrenology is the study of the size and shape of the skull.

Hence, option A is the correct response.

24. Select the related word from the given alternatives.

Love : Hate :: Proud : ?

A. Sorrowful

B. Miserable

C. Humble

D. Conceited

Ans. C

Sol. As love and hate are opposite to each other, similarly proud and humble are opposite to each other

Hence, option C is correct.

25. Directions: In the following questions, select the related letters/word/number/figure from the given alternatives.

2 : 7 :: 6 : ?

A. 40

B. 39

C. 50

D. 72

Ans. B

Sol.  $2^2 = 4 \rightarrow 4 + 3 = 7$

$6^2 = 36 \rightarrow 36 + 3 = 39$

Hence option B is correct

26. In each of the following questions, select the related number from the given alternatives.

6 : 29 :: 24 : ?

A. 109

B. 129

C. 119

D. 99

Ans. C

Sol. The pattern is:

As,  $6 \times 5 = 30 - 1 = 29$

Similarly,  $24 \times 5 = 120 - 1 = 119$

Hence, option C is correct.

27. Directions: In each of the following questions, select the related word /letters/number from the given alternatives.

6415 : 5304 :: 7896 : ?

A. 6705

B. 6905

C. 6907

D. 6785

Ans. D

Sol. 6415 : 5304 :: 7896 : ?

In the first pair, the second term is obtained by deducting 1111 from the first term.

$6415 - 1111 = 5304$

Similarly,  $7896 - 1111 = 6785$

Thus, 6415 : 5304 :: 7896 : 6785

Hence, option D is correct.

28. Select the related word/letters/ numbers from the given alternatives.

$$138 : 161 :: 144 : ?$$

- A. 165
- B. 166
- C. 167
- D. 168

Ans. C

Sol.  $138 + 23 = 161$

Similarly,  $144 + 23 = 167$

29. A train starts from station A and reaches B 15 min late when it moves with 40 km/hr and 24 min late when it goes 30 km/hr. The distance between the two stations is

- A. 21 km
- B. 16 km
- C. 18 km
- D. 24 km

Ans. C

Sol. Let the distance between two stations be 'D'

According to questions,

$$\frac{D}{30} - \frac{D}{40} = \frac{9}{60}$$

$$\frac{D}{120} = \frac{9}{60}$$

$\therefore D = 18 \text{ km}$

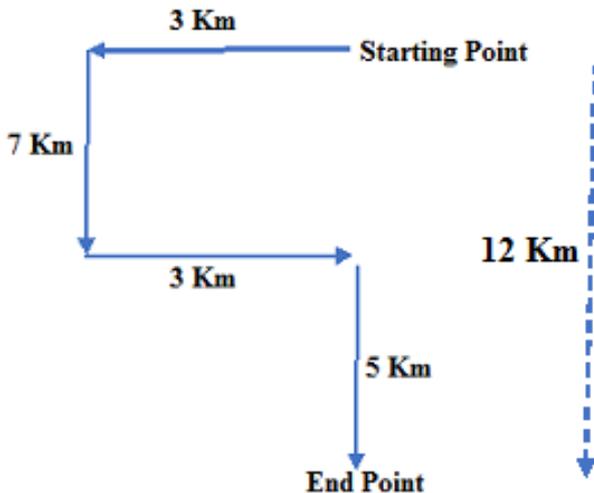
Hence, option C is the correct answer.

30. A man walks 3 km west, then turns South and walks 7 km, then turns East and walks 3 km, then turns to his right and walks 5 km. Where is he now with reference to his starting position?

- A. 12 km North
- B. 2 km South
- C. 12 km South
- D. 2 km North

Ans. C

Sol.

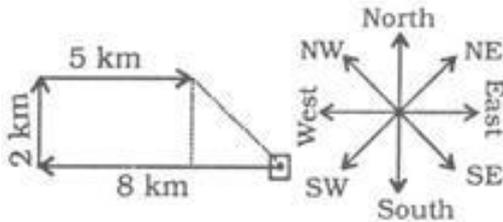


Hence, the correct option is C.

31. Khan travels 8 km from East to West and turns right to travel 2 km. Now he turns right and travels 5 km. In which direction is he now positioned with reference to the starting point?
- A. South-East
  - B. North-West
  - C. West
  - D. North

Ans. B

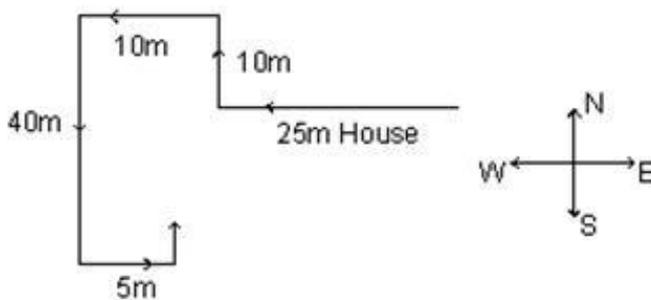
Sol.



32. Govind starts from his house towards West. After walking a distance of 25 m he turned towards right and walked 10 m. He then turned left and moving a distance of 10 m, turned to his left again and walked 40 m. He now turns to the left and walks 5 m. Finally he turns to his left. In which direction is he walking now?
- A. North
  - B. South
  - C. East
  - D. West
  - E. North-East

Ans. A

Sol. The given path can be represented as shown below.



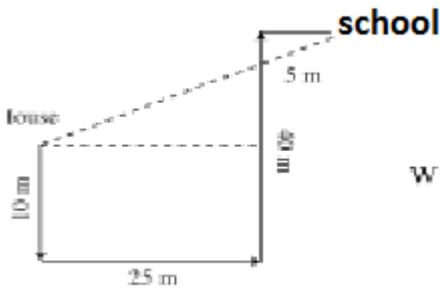
Therefore, Govind is walking towards the North.

Hence, option (A) is correct.

33. Ram walks 10 m South from his house, turns left and walks 25 m, again turns left and walks 40 m. then turns right and walks 5 m to reach the school. In which direction is the school from his house?
- A. North
  - B. South-West
  - C. North-East
  - D. East

Ans. C

Sol.



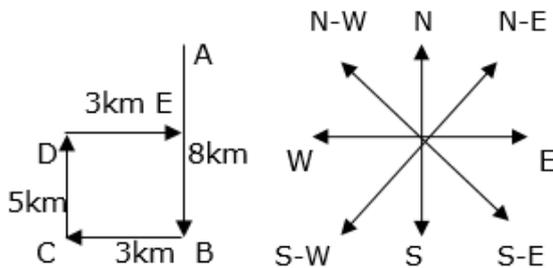
School is in the North East direction

34. Ashok went 8 kms south and turned west and walked 3 kms. Again he turned north and walked 5 kms. He took a final turn to east and walked 3 kms. In which direction was Ashok from the starting point?

- A. East
- B. North
- C. West
- D. South

Ans. D

Sol. The movement of Ashok is shown in the figure below.



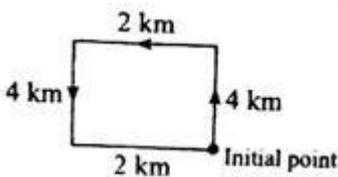
Ashok is in south direction from the starting point.

35. Sunita rode her scooty northwards, then turned left and then again rode to her left 4 km. She found herself exactly 2 km west of her starting point. How far did she ride northwards initially?

- A. 4 km
- B. 6 km
- C. 2 km
- D. 5 km

Ans. A

Sol.



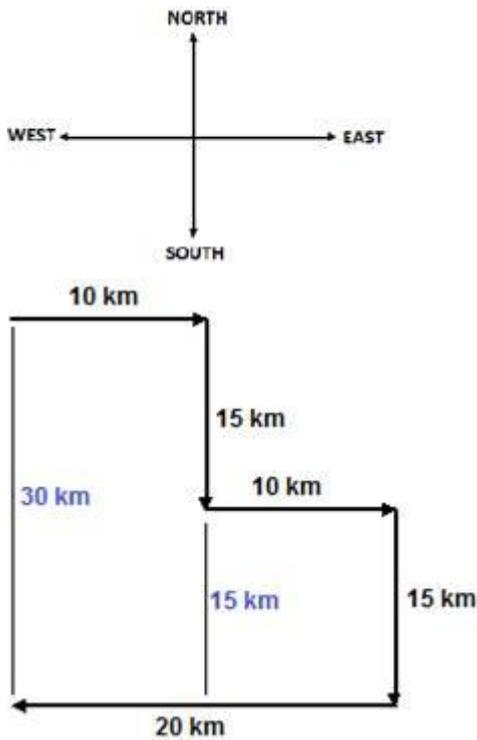
∴ Required distance = 4 km

36. Sudisha walks 10 km towards east then she turns to her right and walks 15 km and she turns to her left and walks 10 km, now she turns to her right and walks 15 km and finally take a right turn and walks 20 km and stop. How far and in which direction is she from her original position?

- A. 20 km, South
- B. 14 km, North
- C. 16 km, South
- D. 30 km, South

Ans. D

Sol. From the given information.



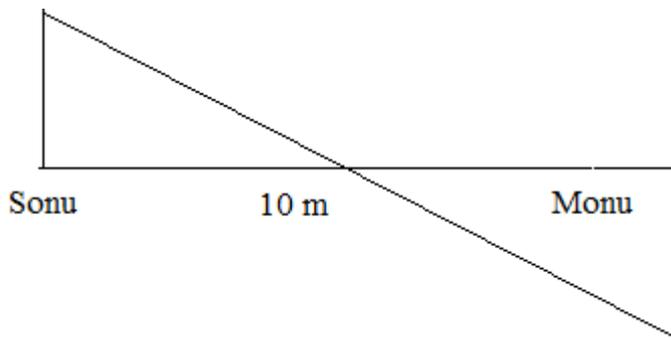
So, the distance between the original and final position is  $(15 + 15) = 30$  km and direction is South.

So, the correct answer is option D.

37. Monu and Sonu are standing on a line at a distance of 10 meters, facing north. Monu moves towards south while Sonu moves towards north. Monu stands to the right of Sonu. In which direction Monu is standing with respect to Sonu?
- A. South West
  - B. North West
  - C. South East
  - D. North East
  - E. South

Ans. C

Sol. This is the figure for the question.



38. Five students are sitting in a row. 'T' is on the right of 'Z'. 'M' is on the left of 'Z' but is on the right of 'L'. 'T' is on the left of 'Q'. Who is sitting first from the left?
- A. Z
  - B. Q
  - C. T
  - D. L
  - E. None of these

Ans. D

Sol.



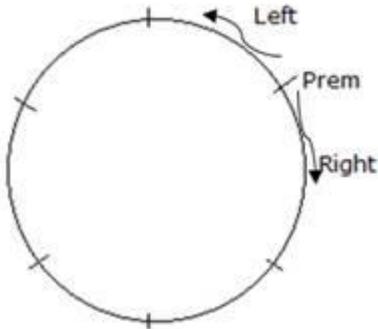
Therefore, "L" is sitting first from the left end.

39. Prem, Rakesh, Roshan, Sanjay, Tanuj and Udit are sitting at equal distances around a circular table and are facing the centre. Roshan is third to the right of Prem. Rakesh is third to the left of Tanuj. Udit is immediate between Prem and Tanuj and Sanjay is third to the left of Udit. Who is sitting opposite to Tanuj?

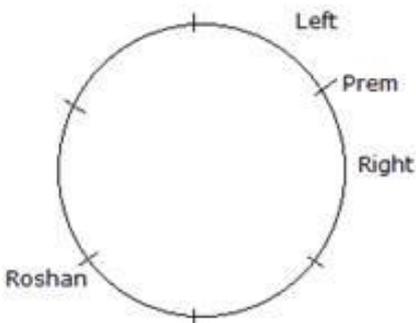
- A. Roshan
- B. Prem
- C. Rakesh
- D. Sanjay

Ans. C

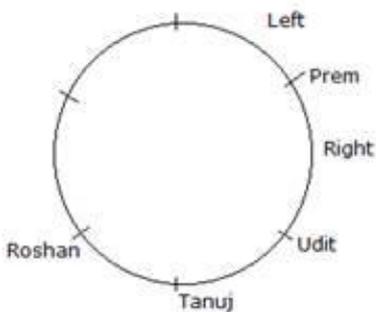
Sol. let we first fix Prem at one position >



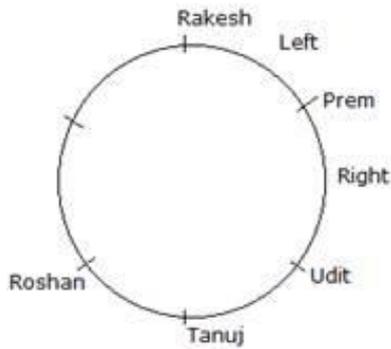
Roshan is third from Prem in the right, hence



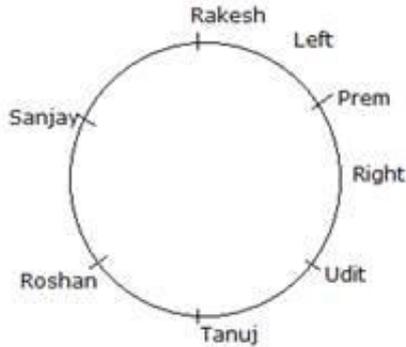
Now Udit is between Prem and Tanuj, therefore



Rakesh is third from Tanuj from the left, hence



Sanjay is third from Udit in the left and right



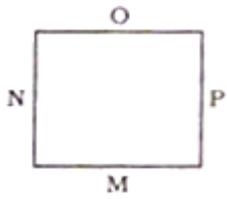
It is clear that Rakesh is opposite to Tanuj.

Hence, option C is the right answer.

40. Four persons M, N, O and P are playing cards . M is on the right of N and P is on the left of O. Partners are sitting opposite to each other. Then which of the following are partners?
- A. P and O
  - B. M and P
  - C. M and N
  - D. N and P

Ans. D

Sol. N and P are partners.

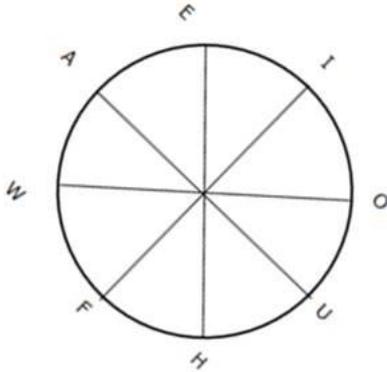


Hence, option D is the correct answer.

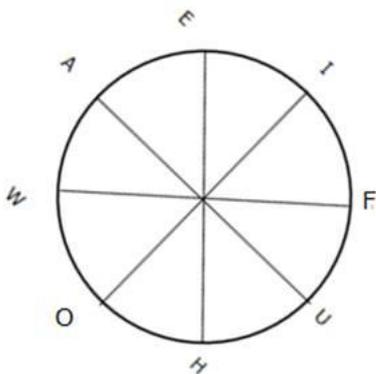
41. A, E, I, O, U, H, F, and W are sitting around a circular table in a clockwise manner in the same sequence at equal distances from each other. Then O and F interchange their positions. If H is facing the north, then which direction will O be facing?
- A. North-East
  - B. West
  - C. South-West
  - D. East

Ans. A

Sol. A, E, I, O, U, H, F and W are sitting around a circular table in clockwise manner in the same sequence at equal distances from each other. H is facing the north.



Now O and F interchange their positions,



So, O will face North-East.

Hence, the correct option is A.

42. Four children, Akram, Bopsi, Priya and Tulsi are on a ladder. Akram is further up the ladder than Bopsi. Bopsi is in between Akram and Priya. If Tulsi is still further up than Akram, who is the second person from the bottom?

- A. Tulsi
- B. Akram
- C. Priya
- D. Bopsi

Ans. D

Sol. Final arrangement will be:

Tulsi

Akram

Bopsi

Priya

Thus, from the above arrangement it is clear that Bopsi is second last from the bottom.

Hence, option (D) is the correct response.

43. Six girls are standing in such a way that they form a circle, facing the centre, Subbu is to the left of Pappu, and Revathi is between Subbu and Nisha. Aruna is between Pappu and Keerthana, Who is to the left of Pappu?

- A. Subbu
- B. Keerthana
- C. Nisha
- D. Aruna

Ans. A

Sol.



Subbu is to the left of Pappu.

Hence, option A is the correct response.

44. The age of Kavita is same as Pooja as they are twins, Joey is younger than Pooja, Krish is younger than Pinki but elder than Vikki, Kavita is younger than Vikki. Who is the eldest among them all?

- A. Krish
- B. Pinki
- C. Vikki
- D. Joey

Ans. B

Sol. According to question,

Kavita = Pooja and Joey < Pooja

Kavita < Vikki and Vikki < Krish < Pinki

So, Joey < Kavita = Pooja < Viki < Krish < Pinki

Clearly, Pinki is the eldest among them all.

Hence, option B is the correct answer.

45. In a row Payal is 24<sup>rd</sup> from the start and Shobhit is 13<sup>th</sup> from the end of the row. Sheeba is sitting 9<sup>th</sup> above of the Payal and Payal is sitting in the middle of Shobhit and Sheeba, What is the position of Payal from the end if there are 45 people sitting in the row?

- A. 32<sup>nd</sup>
- B. 27<sup>th</sup>
- C. 18<sup>th</sup>
- D. 22<sup>nd</sup>

Ans. D

Sol. According to question,

Position of Payal from start = 24<sup>th</sup>

Total people are = 45

Shobhit's position from the start =  $(45 - 13) + 1 = 33^{\text{th}}$

Sheeba's position from the start = Payal's Position - Sheeba's Position =>  $24 - 9 = 15^{\text{th}}$

No of persons between Payal and shobhit = 8 persons

Payal's position from end =  $13+8+1 = 22^{\text{nd}}$

46. Bima is younger than Rita. Rita is younger than Kala. Kala is elder than Nila. Nila is younger than Bala. Who is the eldest of all of them?

- A. Rita
- B. Kala
- C. Bala
- D. Bala or Kala

Ans. D

Sol. According to the given information,

$$\text{Rita} > \text{Bima} \dots\dots(i)$$

$$\text{Kala} > \text{Rita} \dots\dots(ii)$$

$$\text{Kala} > \text{Nila} \dots\dots(iii)$$

$$\text{Bala} > \text{Nila} \dots\dots(iv)$$

From (i) & (ii);  $\text{Kala} > \text{Rita} > \text{Bala}$

From (iii) & (iv) ; either  $\text{Bala} > \text{Kala} > \text{Nila}$  or  $\text{Kala} > \text{Bala} > \text{Nila}$

So, either Bala or Kala is the eldest among all.

Hence, option (D) is correct.

47. In a class of 40 students Roshan is on 8<sup>th</sup> position from top and Karan's position is 13<sup>th</sup> from bottom. Umesh is on exact middle position between them. What is position of Umesh from bottom end?

A. 23<sup>rd</sup>

B. 18<sup>th</sup>

C. 19<sup>th</sup>

D. 24<sup>th</sup>

Ans. A

Sol. Position of Roshan from top = 8<sup>th</sup>

Position of Karan from bottom = 13<sup>th</sup>

Number of students between them =  $40 - (8+13) = 19$

Hence, position of Umesh from both Roshan and karan = 10<sup>th</sup>

Position of Umesh from bottom =  $13+10 = 23^{\text{rd}}$

48. Find the odd number/letters/number part from the given alternatives.

A. MONST

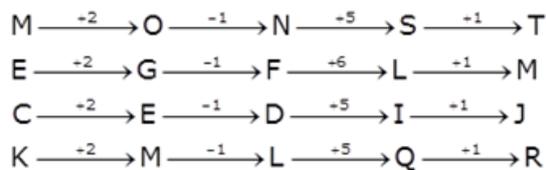
B. EGFLM

C. CEDIJ

D. KMLQR

Ans. B

Sol.



49. Find out the different one.

A. 81-45

B. 72-91

C. 117-99

D. 135-126

Ans. B

Sol.  $8+1 = 9$ ;  $4+5 = 9$ ;

$$1+1+7 = 9; 9+9 = 18 \rightarrow 1+8 = 9$$

$$1+3+5 = 9; 1+2+6 = 9$$

$$\text{However, } 7+2 = 9; 9+1 = 10 \rightarrow 1+0 = 1$$

50. In the following questions find the odd word/number/letters/number pair from the given alternatives.

- A. Silver
- B. Platinum
- C. Zinc
- D. Bronze

Ans. D

Sol. Except *Bronze*, all others are metals, Bronze is an alloy.

51. Find the odd word/number pair from the given alternatives.

- A. Vedanthangal
- B. Bandipur
- C. Mudumalai
- D. Thekkady

Ans. D

Sol. Thekkady is the location of the Periyar National Park, which is an important tourist attraction in the Kerala state of India. While others are national parks or bird sanctuary. *Bandipur* National Park established in 1974 as a tiger reserve under Project Tiger, is a national park located in the Indian state of Karnataka.

The *Mudumalai* National Park and Wildlife Sanctuary also a declared tiger reserve, lies on the northwestern side of the Nilgiri Hills (Blue Mountains), in Nilgiri mountains in state tamilnadu and karnataka.

52. Find the odd number/letters/ number part from the given alternatives.

- A. 4
- B. 25
- C. 40
- D. 49

Ans. C

Sol. Except 40, all others are perfect squares.

$$4 = 2 \times 2, 25 = 5 \times 5, 49 = 7 \times 7$$

53. Find the odd number/letters/number pair from the given alternatives.

- A. SOKJ
- B. TPLI
- C. YOQM
- D. RNJF

Ans. D

Sol. Every letter cluster has one vowel except for option D.

Hence, option D is the correct answer.

54. Find the odd word / letters / figure / number pair from the given responses

- A. Confluence
- B. Concourse
- C. Radiation
- D. Concentration

Ans. C

Sol. All others except 'Radiation' show convergence. Thus the odd one out is 'Radiation'.

Hence Option C is correct

55. Direction: Study the following information carefully to answer the questions given below.  
The following qualifications are for a certain post in a reputed firm.

The candidate must-

- A) Be an Engineering Graduate with at least 55% marks.
- B) Be not less than 21 years and not more than 24 years of age as on 1.4.2016
- C) Have passed the selection test with at least 70%
- D) Be willing to pay a deposit of Rs.50,000, to be refunded on completion of training.

However if a candidate fulfills all the mentioned criteria except:

- i. A, but has appeared for the last semester exam and has obtained an average of 65% in the first seven semesters, his/her case may be referred to the VP.
- ii. D, but is willing to pay 25000 and has obtained 65% marks in his engineering degree, the case may be referred to the General Manager. |||End|||

Abhiram is an IT engineer passed out in 2015 with 52% marks. He has cleared the selection test with 66%% marks. He can pay the deposit money of 50,000. His date of birth is 15<sup>th</sup> September 1994 A. The candidate is to be selected.

- B. The case is to be referred to the General Manager
- C. The case is to be referred to the VP.
- D. The data provided is not adequate to take a decision.
- E. The candidate is not selected.

Ans. E

Sol. Abhiram is an IT engineer passed out in 2015 with 52% marks. - He does not fulfil first criteria. (Be an Engineering Graduate with at least 55% marks.)

He has cleared the selection test with 66%% marks. He does not fulfil third criteria. (Have passed the selection test with at least 70%)

Hence, the candidate is not to be selected.

56. Direction: Study the following information carefully and answer the questions given below.  
Following are the conditions for selecting Marketing Manager in an organization.

The candidate must:

- (i) Be a graduate in any discipline with at least 55 percent marks.
- (ii) Have a postgraduate degree/diploma in Marketing Management with at least 60 percent marks.
- (iii) Have post qualification work experience of at least five years in the marketing division of an organization.
- (iv) Have secured at least 45 percent marks in the selection examination.
- (v) Have secured at least 45 percent marks in the selection interview.

In the case of a candidate who satisfies all the conditions, except:

- (a) At (iii) above, but has post qualification work experience of at least three years as Deputy Marketing Manager, the case is to be referred to GM-Marketing.
- (b) At (v) above, but has secured at least 60 percent marks in the selection examination, the case is to be referred to VP- Marketing.

In question below, details of one candidate are given. You have to take one of the following course of actions based on the information provided and the conditions and sub-conditions given above and marks the number of that course of action as your answer. You are not to assume anything other than the information provided in each question. All these cases are given to you as on 01.05.2010.

Varsha Akolkar has secured 59 per cent marks in B.A. She has secured 42 per cent marks in the selection interview and 48 per cent marks in the selection examination. She has been working in the Marketing division of an Organization for the past seven years after completing her Post-graduation in marketing management With 57 per cent marks.

- A. The candidate is to be selected.
- B. The candidate is not to be selected.
- C. The case is to be referred to GM-Marketing.
- D. The case is to be referred to VP-Marketing.
- E. The data provided are not adequate to take a decision.

Ans. B

Sol. As Varsha Akolkar is Post-graduation in marketing management With 57 per cent marks. Therefore she does not fulfill (ii) necessary condition. Hence she is not to be selected.

57. Direction: In the question below, a statement is given followed by two arguments. Choose the most appropriate option depending on which argument strengthens the given statement.

Statement:

Should government ban microfinance?

Arguments :

- I. Yes. They are running in huge losses owing to the low degree of repayment of loan by the poor families.
  - II. No. it is the sole source of easy finance and loans for the poor.
- 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
  - E. If both I and II Argument is strong.

Ans. D

Sol. Running in huge losses is not a good enough reason to ban microfinance unless they do not violate any specific provision of the law. Microfinance does not only the sole source of easy finance. Hence, none of the conclusions follow.

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2	Harish	Electrical	8601312068	12	Thalapula mahendra	Electrical	10000500536
3	Ahamed	Electrical	10000685531	13	Iaxmi	Electrical	2404001543
4	Harsha N	Electrical	9001012056	14	SAMEER VERMA	Electrical	3206305556
5	Mandhadi pavan reddy	Electrical	8601309312	15	Vishnu Mohan	Electrical	9212000979
6	Arun kumar mishra	Electrical	6005200522	16	Naveen Kumar	Electrical	8008302829
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58. Direction: In the questions below, a statement is given followed by two arguments. Choose the most appropriate option depending on which argument strengthens the given statement.

Statement:

Should cricket be played in indoor stadiums?

Argument:

- I. No, without sun and open weather the game cannot be played properly.
- II. Yes, the player's abilities increase if they are not exposed to solar heat and blowing wind.

- A. Only argument I is strong
- B. Only argument II is strong.
- C. Either I or II is strong.
- D. Neither I nor II is strong.
- E. Both I and II are strong.

Ans. C

Sol. I states that cricket cannot be played properly without sunlight and open weather. The game will not be entertaining if not played properly. Hence, I is strong.

II states that players perform better, if they play indoors. A better player makes the game more enjoyable. Hence, II is strong.

II and I are contradictory to each other. Hence, either I or II is strong.

59. A statistical data in Jamnagar, a village on the edge of Gir Forest in Gujarat, revealed that there has been a steady decline in the cattle population over the last six months. Since Jamnagar is on the edge of the Gir Forest, which is home to lions, it can be concluded that the cattle are being lost as they are prey to the big cats.

Which of the following if true most weakens the conclusion?

- I. The lions find it easy to attack an animal from a herd.
- II. Cows and Buffaloes are very weak animals and exhibit no self-defense.
- III. Wolves are notoriously famous predators of cattle and a significant population of them exist in the Gir Forest.
- IV. The herbivores have poor night vision, while lions have very good vision at night.

- A. Only I
- B. Both I and II
- C. Only III
- D. Only IV
- E. None of the above

Ans. C

Sol. Choice (1), (2) and (4) strengthen the conclusion. In choice (3), it has been explained of the possibility that wolves may also attack the cattle, which weakens the conclusion that the cattle are being lost only to the big cats. Hence choice (3) is correct.

60. Direction: In the questions below, a statement is given followed by two arguments. Choose the most appropriate option depending on which argument strengthens the given statement.

Statement- media should be restricted by the government

Arguments :

- I. Yes, sometime restrictions are needed to control free media.
  - II. No, media is the fourth pillar of our democracy
- 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
  - E. If both I and II Argument is strong.

Ans. D

Sol. First is merely a restatement of statement. Media is the fourth pillar of democracy so what it means that it cannot be rightfully restricted it is completely vague statement.

61. Direction: In the question below, a statement is given followed by two arguments. Choose the most appropriate option depending on which argument strengthens the given statement.

Statement:

Corporal punishment should be banned in school.

Arguments:

- I. No. teachers are responsible adult can be trusted with using the punishment only as last resort
  - II. Yes. Hitting student is only an easy way out to create an image of trying to change the student, whereas there are better options available for fundamentally changing the behavior of the student.
- 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
  - E. If both I and II Argument is strong.

Ans. B

Sol. If teachers are as responsible adults were indeed to be blindly trusted, then there is no need of this debate. But Experiences shows that many a time such punishment is inflicted inappropriately.

62. Direction: In the questions below, a statement is given followed by two arguments. Choose the most appropriate option depending on which argument strengthens/weakens the given statement.

The fee in engineering colleges across the country has increased drastically.

Which of the following statements strengthens the fee hike?

- (A) The cost of administration at the existing standards of engineering colleges increased substantially.
  - (B) The teaching staff of engineering colleges demanded a hike in their salaries.
  - (C) The colleges are providing better and advanced facilities to the students from this academic year.
- A. All (A), (B) and (C)  
B. only (A) and (C) Correct Answer  
C. Only (A) and (B)  
D. Only (B) and (C) X Your answer is incorrect  
E. Only (A)

Ans. B

Sol. The fee in engineering colleges has increased drastically. (A) and (C) strengthens the given statement by mentioning the reasons why the fee has been. The demand of the increase in salary by staff does not necessarily lead to the increase of fee. Hence (B) cannot substantiate the given situation. Only (A) and (C) strengthen.

63. Direction: 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: 13 royal 9 rotary 10 regale 11 remote 12 rejuvenate

Step I: 14 royal 9 rotary 10 regale 11 remote 12 rejuvenate

Step II: 14 royal 11 rejuvenate 9 rotary 10 regale 11 remote

Step III: 14 royal 11 rejuvenate 12 remote 9 rotary 10 regale

Step IV: 14 royal 11 rejuvenate 12 remote 9 regale 9 rotary

Step V: 14 royal 11 rejuvenate 12 remote 9 regale 8 rotary

And step V is the last step of the arrangement.

As per the above rule followed in the above steps, find out in each of the following questions the appropriate step for the input given below.

Input: 8 lethargy 5 listless 9 lampoon 6 lustre 7 languid

What is the sum of all even numbers in Step III?

- A. 24
- B. 22
- C. 20
- D. 30
- E. 42

Ans. B

Sol. In this question, all the numbers and words are in pairs. Each word is associated to a number. The largest number is taken in the Step I and check if it is prime or composite. Add 1 if it is prime and subtract 1 if it is composite. The words will move according to the number with which they form pair.

Input: 8 lethargy 5 listless 9 lampoon 6 lustre 7 languid

Step I: 8 lampoon 8 lethargy 5 listless 6 lustre 7 languid

Step II: 8 lampoon 7 lethargy 5 listless 6 lustre 7 languid

Step III: 8 lampoon 7 lethargy 8 languid 5 listless 6 lustre

Step IV: 8 lampoon 7 lethargy 8 languid 5 lustre 5 listless

Step V: 8 lampoon 7 lethargy 8 languid 5 lustre 6 listless

Then Step V is the final step of the arrangement.

64. Direction: 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: 54 door even 49 6 find 25 tired own 64

Step I: door 25 54 even 49 6 find tired own 64

Step II: door 25 even 6 54 49 find tired own 64

Step III: door 25 even 6 find 49 54 tired own 64

Step IV: door 25 even 6 find 49 own 54 tired 64

Step IV is the last step of the above input, as the desired arrangement is obtained.

As per the rule followed in the above steps, find out in each of the following questions the appropriate step for the given input.

Input: ink 23 sound 121 boot 21 36 judge 9 quest 100 19 food tight

How many steps required to complete this rearrangement?

- A. 6
- B. 7
- C. 8
- D. 9
- E. None of these

Ans. B

- Sol. The machine rearranges one word and one number in each step. The words are arranged in alphabetical order while for numbers, perfect square and non-perfect squares come in each alternate step in ascending order.

Input: ink 23 sound 121 boot 21 36 judge 9 quest 100 19 food tight

Step I: boot 9 ink 23 sound 121 21 36 judge quest 100 19 food tight

Step II: boot 9 food 19 ink 23 sound 121 21 36 judge quest 100 tight

Step III: boot 9 food 19 ink 36 23 sound 121 21 judge quest 100 tight

Step IV: boot 9 food 19 ink 36 judge 21 23 sound 121 quest 100 tight

Step V: boot 9 food 19 ink 36 judge 21 quest 100 23 sound 121 tight

Step VI: boot 9 food 19 ink 36 judge 21 quest 100 sound 23 121 tight

Step VII: boot 9 food 19 ink 36 judge 21 quest 100 sound 23 tight 121

65. Direction: Study the following information carefully and answer the given questions:

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. (All the numbers are two-digit numbers).

Input : enemy day 22 54 as 64 71 purpose golf 91 poetry 43

Step I : as enemy day 22 54 64 purpose golf 91 poetry 43 71

Step II : as day enemy 22 54 64 purpose golf 91 poetry 71 43

Step III : as day enemy 54 64 purpose golf 91 poetry 71 43 22

Step IV : as day enemy golf 64 purpose 91 poetry 71 43 22 54

Step V : as day enemy golf purpose 91 poetry 71 43 22 54 64

Step VI : as day enemy golf purpose poetry 71 43 22 54 64 91

Step VI is the last step of the above input, as the desired arrangement is obtained. As per the rule followed in the above steps, find out in each of the following questions the appropriate step for the given input.

Input: example body 63 82 friend 24 old 33 72 my 52 diary

How many elements are there between the word 'example' and the number '52' in the step III after making the given arrangement?

- A. 5
- B. 4
- C. More than 6
- D. 6
- E. Less than 4

Ans. A

Sol. As seen from the solution, in the step III, example and 52 has 5 elements. So, it has 5 elements.

Now, in the illustration a word and number is being rearranged in each step. In step I, the word with the minimum difference is placed to the extreme left hand side i.e. 'as' has 1 consonants and 1 vowel, so difference is calculated by  $(\text{number of consonants}^{\wedge(\text{number of consonants} - 1)} - \text{number of vowels}^{\wedge(\text{number of vowels} - 1)})$

i.e.  $(1 - 1^0) = 0$  and the number with maximum difference is placed to the extreme right hand side i.e. '71', so difference is calculated by  $(\text{Initial number} - (\text{square of numbers}))$ , i.e.  $(71 - (7^2 + 1^2)) = 21$ . In step II, the word with the greater difference is placed ahead of the previous word i.e. 'day' has 2 consonants and 1 vowel, so difference is calculated by  $(\text{number of consonants}^{\wedge(\text{number of consonants} - 1)} - \text{number of vowels}^{\wedge(\text{number of vowels} - 1)})$

i.e.  $(2^1 - 1^0) = 1$  and the number with the second highest difference is placed to the extreme right hand side i.e. '71 43' ('43' has  $(43 - (4^2 + 3^2)) = 18$  and so on.

Input: example body 63 82 friend 24 old 33 72 my 52 diary

Step I: old example body 63 82 friend 24 33 72 my diary 52

Step II: old my example body 63 82 friend 24 33 diary 52 72

Step III: old my diary example body 82 friend 24 33 52 72 63

Step IV: old my diary body example 82 friend 24 52 72 63 33

Step V: old my diary body example friend 24 52 72 63 33 82

Step VI: old my diary body example friend 52 72 63 33 82 24

66. Direction: 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: 32 48 97 63 74 89 60 39 76

Step I: 33 48 97 63 74 89 60 39 76

Step II: 33 40 48 97 63 74 89 60 76

Step III: 33 40 49 97 63 74 89 60 76

Step IV: 33 40 49 61 97 63 74 89 76

Step V: 33 40 49 61 64 97 74 89 76

Step VI: 33 40 49 61 64 75 97 89 76

Step VII: 33 40 49 61 64 75 77 97 89

Step VIII: 33 40 49 61 64 75 77 90 97

Step IX: 33 40 49 61 64 75 77 90 98

Step IX is the last step of the rearrangement.

As per the rules followed in the above steps, answer the questions for the following input.

Input: 82 91 31 78 14 66 54 18 93 77

How many steps are required for the output?

- A. 6
- B. 8
- C. 7
- D. 10
- E. None of these

Ans. D

Sol. By observing the input and output numbers are being arranged in ascending order and numbers are increased by +1.

Input: 82 91 31 78 14 66 54 18 93 77

Step I: 15 82 91 31 78 66 54 18 93 77

Step II: 15 19 82 91 31 78 66 54 93 77

Step III: 15 19 32 82 91 78 66 54 93 77

Step IV: 15 19 32 55 82 91 78 66 93 77

Step V: 15 19 32 55 67 82 91 78 93 77

Step VI: 15 19 32 55 67 78 82 91 78 93

Step VII: 15 19 32 55 67 78 79 82 91 93

Step VIII: 15 19 32 55 67 78 79 83 91 93

Step IX: 15 19 32 55 67 78 79 83 92 93

Step X: 15 19 32 55 67 78 79 83 92 94

Hence, 10 steps are required for the output.

67. Direction: Study the following information to answer the given question.

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule. The following is an illustration of input and rearrangement.

(All the numbers given in the arrangement are two-digit numbers)

Input: science 87 72 chemistry thesis 14 58 geometry digital 25

Step I: chemistry science 72 thesis 14 58 geometry digital 25 87

Step II: digital chemistry science thesis 14 58 geometry 25 87 72

Step III: geometry digital chemistry science thesis 14 25 87 72 58

Step IV: science geometry digital chemistry thesis 14 87 72 58 25

Step V: thesis science geometry digital chemistry 87 72 58 25 14

Step V is the last step of the input. As per the rules followed in the above steps, find out in each of the following questions the appropriate steps for the given input.

Input: fisheries 53 anthropology 98 36 jeans radical 16 hematology 74 botany selenographer 39 48

Which word/number would be 8th position from the right in step IV?

- A. 16
- B. radical
- C. hematology
- D. jeans
- E. selenographer

Ans. B

Sol. 'radical' would be at 8th position from the right in step IV.

In the above rearrangement, the words are arranged alphabetical order in each step and the numbers are arranged in descending order in each step till final step.

Input: fisheries 53 anthropology 98 36 jeans radical 16 hematology 74 botany selenographer 39 48

Step I: anthropology fisheries 53 36 jeans radical 16 hematology 74 botany selenographer 39 48 98

Step II: botany anthropology fisheries 53 36 jeans radical 16 hematology selenographer 39 48 98 74

Step III: fisheries botany anthropology 36 jeans radical 16 hematology selenographer 39 48 98 74 53

Step IV: hematology fisheries botany anthropology 36 jeans radical 16 selenographer 39 98 74 53 48

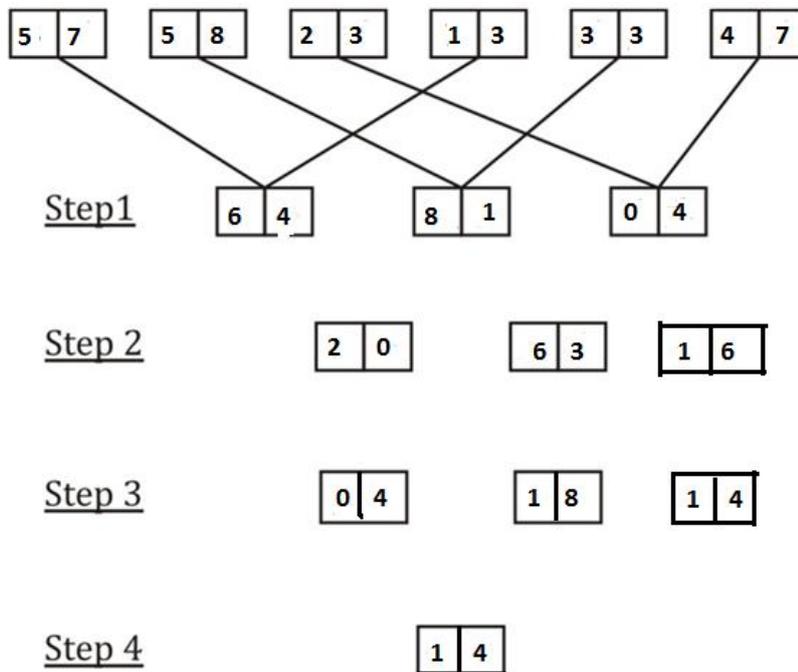
Step V: jeans hematology fisheries botany anthropology 36 radical 16 selenographer 98 74 53 48 39

Step VI: radical jeans hematology fisheries botany anthropology 16 selenographer 98 74 53 48 39 36

Step VII: selenographer radical jeans hematology fisheries botany anthropology 98 74 53 48 39 36 16

68. Direction: Study the given information carefully and answer the given questions.

An input-output is given in different steps. Some mathematical operations are done in each step. No mathematical operation is repeated in next step.



As per the rules followed in the steps given above, find out in each of the following questions the appropriate step for the given input



Find the difference between sum of numbers which obtained in 1st step and sum of numbers obtained in 3<sup>rd</sup> step?

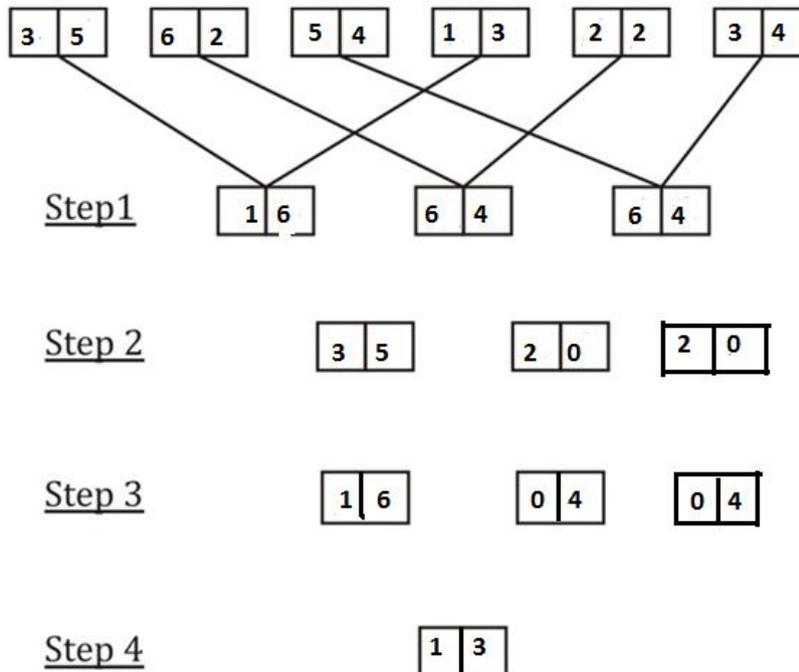
- A. 122
- B. 120
- C. 124
- D. 118
- E. 126

Ans. B

Sol. Step 1. Both the number of first block is written as, 1<sup>st</sup> number of block 1 of the input is multiple with 2<sup>nd</sup> number of block 4 of the input, again 2<sup>nd</sup> number of block 1 of the input is multiple with 1<sup>st</sup> number of block 4 of the input then provide the result is subtracted the both number each other then square the subtracted number. This is process is same for block 2 and block 3. Step 1.

Step 2: 1<sup>st</sup> number of block 1 of the input is squared and 2<sup>nd</sup> number of block 1 of the input is squared then subtracted the both number each other. This is process is same for block 2 and block 3.

Step 3: Double of the addition of 1<sup>st</sup> and 2<sup>nd</sup> digit of each block.  
 Step 4: Subtract of the largest digit to smallest digit of each block then addition of all number.



Step 1.  $16+64+64=144$   
 Step 2.  $16+4+4= 24$   
 $144-24=120$

69. If  $13 \# 9 = 94$  and  $18 \# 7 = 100$ , then  $24 \# 6 = ?$
- A. 121
  - B. 113
  - C. 148
  - D. 115

Ans. B

Sol. Analysing the given equations  $13 \# 9 = 94$  and  $18 \# 7 = 100$

$$13 \times 9 = 117 \text{ and}$$

$$13 + 9 = 22,$$

$$\Rightarrow 117 - (22+1) = 117 - 23 = 94,$$

$$18 \times 7 = 126 \text{ and}$$

$$18 + 7 = 25,$$

$$\Rightarrow 126 - (25 + 1) = 126 - 26 = 100,$$

Similarly, for  $24 \# 6$

$$24 \times 6 = 144 \text{ and}$$

$$24 + 6 = 30,$$

$$\Rightarrow 144 - (30+1) = 144 - 31 = 113.$$

Hence, option B is the correct response.

70. If  $2 \times 2 = 16, 2 \times 3 = 36, 2 \times 4 = 64$ , then  $2 \times 6 = ?$

A. 72

B. 80

C. 96

D. 144

Ans. D

Sol. The equations will be,

$$2 \times 2 = 4; 4 \times 4 = 16$$

$$2 \times 3 = 6; 6 \times 6 = 36$$

$$2 \times 4 = 8; 8 \times 8 = 64$$

$$2 \times 6 = 12; 12 \times 12 = 144$$

Hence, option D is the correct response.

71. In a certain language FASHION is coded as FOIHSAN. How is PROBLEM coded in that code?

A. PELBORM

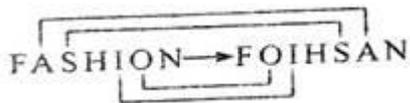
B. PROBOELM

C. RPBOELM

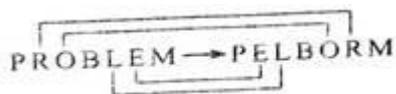
D. ROBLEMP

Ans. A

Sol. As,



Similarly,



72. If LOSE is coded as 1357 and GAIN is coded as 2468, what do the figures 84615 stand for?

A. NAILS

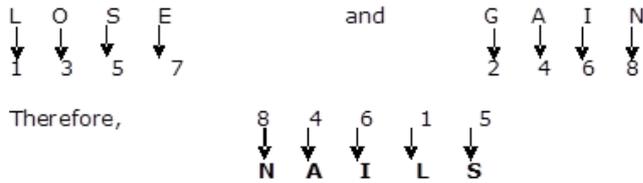
B. SNAIL

C. LANES

D. SLAIN

Ans. A

Sol.



Thus, 84615 stands for NAILS.

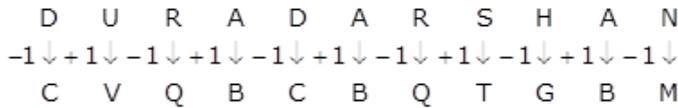
Hence, option A is correct.

73. If in certain code DURADARSHAN is written as CVQBCBQTGBM, then how TELEVISION can be written in that code?

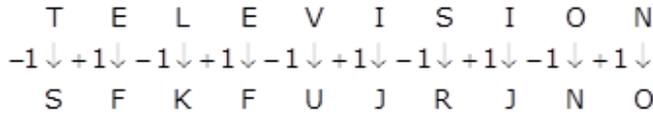
- A. SKFUJRONTI
- B. FJKRONSPIT
- C. SFUJROKTE
- D. SFKFUJRJNO

Ans. D

Sol.



Similarly,

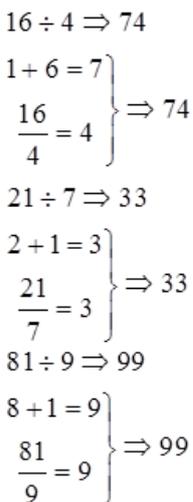


74. If  $16 \div 4 = 74$   
 $21 \div 7 = 33$   
 $81 \div 9 = 99$   
 then  $55 \div 5 = ?$

- A. 110
- B. 1001
- C. 11
- D. 1011

Ans. D

Sol.





Similarly

7- T

8- A

5- N

9- U

77. Some equations are solved on the basis of a certain system. On the same basis, find out the correct answer for the unsolved equation.

$$3 \times 8 \ 2 = 832,$$

$$6 \times 4 \times 1 = 461,$$

$$8 \times 6 \times 1 = ?$$

A. 238

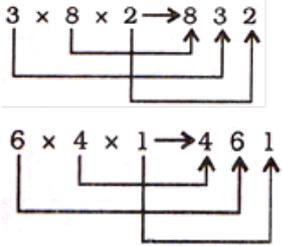
B. 816

C. 146

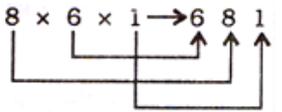
D. 681

Ans. D

Sol.



Therefore,



78. If 'BUDDHISM' is coded as 'DWFFJKUO', then CHRISTIAN will be coded as which of the following codes?

A. EITJUVKBP

B. EJTKUVJCO

C. EJTKVUJCP

D. EJTKUVKCP

Ans. D

Sol.

- $B \xrightarrow{+2} D$
- $U \xrightarrow{+2} W$
- $D \xrightarrow{+2} F$
- $D \xrightarrow{+2} F$
- $H \xrightarrow{+2} J$
- $I \xrightarrow{+2} K$
- $S \xrightarrow{+2} U$
- $M \xrightarrow{+2} O$

Similarly,

$$C \xrightarrow{+2} E$$

$$H \xrightarrow{+2} J$$

$$R \xrightarrow{+2} T$$

$$I \xrightarrow{+2} K$$

$$S \xrightarrow{+2} U$$

$$T \xrightarrow{+2} V$$

$$I \xrightarrow{+2} K$$

$$A \xrightarrow{+2} C$$

$$N \xrightarrow{+2} P$$

Hence, CHRISTIAN will be coded as EJTKUVKCP.

So, option D is correct.

79. If MOTHER is coded as KMRFCP, then HOUSE is coded as

- A. FMRPC
- B. GNSQD
- C. GNRQD
- D. FMSQC

Ans. D

Sol.

M O T H E R  
 -2↓ -2↓ -2↓ -2↓ -2↓ -2↓  
 K M R F C P

Therefore,  
 H O U S E  
 -2↓ -2↓ -2↓ -2↓ -2↓  
 F M S Q C

Hence, option D is the correct response.

80. If it is possible to make only one meaningful word with the first, second, fourth and the sixth letters of the word 'MASTER', which would be the second letter of the word from the left? If more than one such word can be formed, give X as the answer. If no such word can be formed, give Z as your answer.

- A. Z
- B. M
- C. X
- D. A
- E. R

Ans. C

Sol. Two words can be formed with the letters MATR:

MART and TRAM

81. Name a single letter, which can be deleted from the body of the following words to form entirely new words?

Toy, Yeast, Healthy, Lengthy

- A. H
- B. T
- C. Y
- D. E

Ans. C

Sol. 'Y' can be deleted from the body of the given words.

To, East, Health, Length

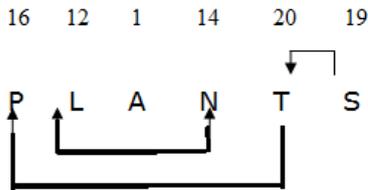
Hence, option C is the correct response.

82. How many such pairs of letters are there in the word PLANTS, each of which has as many letters between them in the word (in both forward and backward directions) as they have between them in the English alphabetical series?

- A. None
- B. One
- C. Two
- D. Three
- E. More than three

Ans. D

Sol. To approach this question is by counting the number of elements (Like P = 16 count next elements as 17, if 17 is there, it counted as one pair, but in this after 16, it is 12, not 17, so count next elements. Therefore, P = 16 and T = 20, that makes one pair.)



The pairs are PT, LN, TS

83. If PEN is coded as 321028 then how would you code TUB?

- A. 40242
- B. 40424
- C. 24404
- D. 40241

Ans. B

Sol. Logic:(place value x 2)

So, P = 16 x 2 = 32

E = 5 x 2 = 10

N = 14 x 2 = 28

Thus, PEN = 321028

Similarly,

T = 20 x 2 = 40

U = 21 x 2 = 42

B = 2 x 2 = 4

Thus, TUB = 40424.

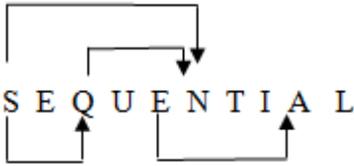
Hence, option B is the correct answer.

84. How many such pairs of letters are there in the word SEQUENTIAL each of which has as many letters between them in the word as in the English alphabet?

- A. None
- B. One
- C. Two
- D. More than three
- E. Three

Ans. D

Sol.



Hence S-Q, Q-N, E-A and S-N are possible pairs as per the given condition.

85. Which letter in the word 'Vertex' should be changed to mean spiral movement?

- A. 1<sup>st</sup>
- B. 2<sup>nd</sup>
- C. 4<sup>th</sup>
- D. Last

Ans. B

Sol. Vertex ⇒ Vortex

86. 'DEAN' is related to 'NDAE' and 'ROAD' is related to 'DRAO' in the same way as 'SOME' is related to

- A. ESMO
- B. EOMS
- C. EMOS
- D. MSEO
- E. None of these

Ans. A

Sol. Given,

1 2 3 4      4 1 3 2  
 DEAN → NDAE

1 2 3 4      4 1 3 2  
 ROAD → DRAO

Therefore,

1 2 3 4      4 1 3 2  
 SOME → ESMO

Hence, option A is correct.

87. A group of alphabets are given with each being assigned a number. These have to be unscrambled into a meaningful word and correct order of letters may be indicated from the given responses.

L, R, T, O, A, I

1, 2, 3, 4, 5, 6

- A. 3, 4, 1, 6, 2, 5
- B. 3, 5, 6, 1, 4, 2
- C. 5, 3, 6, 2, 4, 1
- D. 6, 2, 5, 3, 4, 1

Ans. B

Sol. From the given alphabets (L R T O A I); the word that can be formed is:

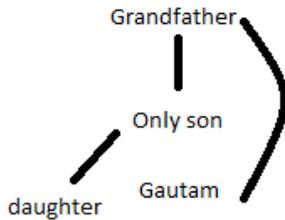
T, A, I, L, O, R

3, 5, 6, 1, 4, 2

88. Pointing to Gautam, Nandani says, "I am the daughter of the only son of his grandfather."  
How Nandani is related to Gautam?
- A. Niece  
B. Daughter  
C. Sister  
D. Cannot be determined.

Ans. C

Sol.



Nandani is the daughter of the only son of Gautam’s grandfather. Hence, it is clear that Nandani is the sister of Gautam.

89. A and B are brothers. C and D are sisters. A’s son is D’s brother. How B is related to C?
- A. Father  
B. Brother  
C. Grandfather  
D. Uncle  
E. Brother-in-law

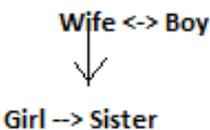
Ans. D

Sol. Clearly, B is the brother of A; A's son is D's brother. This means D is the daughter of A. Since C and D are sister, C is also the daughter of A. So, B is the uncle of C.

90. Pointing to a girl, a boy said, " She is the sister of the daughter of my wife." How is the boy related to the girl ?
- A. Father  
B. Uncle  
C. Brother  
D. Son

Ans. A

Sol. From the given information, She is the sister of the daughter of my wife means boy’s wife daughter who also means boy’s daughter. So, the boy is the girl’s father.

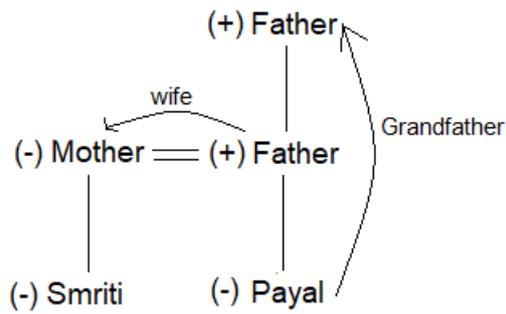


So, the correct answer is option A.

91. If Smriti is the daughter of the wife of the only son of the father of Payal’s father. How is Smriti related to Payal, if Smriti’s grand-father has no grandson?
- A. Sister  
B. Cousin  
C. Sister-in-law  
D. Mother

Ans. A

Sol.



According to the above diagram;

Father of Payal's father means Grandfather of Payal.

Smriti is the daughter of the wife of Payal's Grandfather's only son, i.e. father of Payal.

Therefore, Smriti is the sister of Payal.

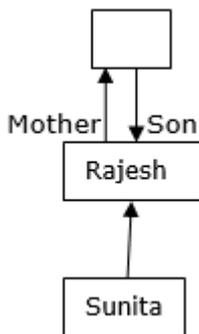
Hence, option A is the correct response.

92. Pointing Rajesh in the photograph, Sunita said, 'The only son of his mother is my father. How is Sunita related to Rajesh?

- A. Niece
- B. Aunt
- C. Mother
- D. Daughter

Ans. D

Sol.



So, Sunita is daughter of Rajesh.

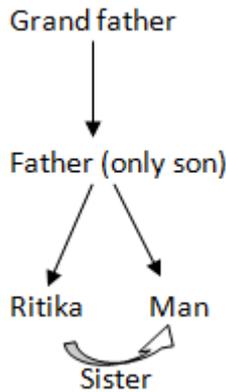
Hence, option D is correct.

93. Pointing towards a man, Ritika said "He is the son of my grandfather's only son". How is Ritika related to that man?

- A. Aunty
- B. Sister
- C. Mother
- D. Wife

Ans. B

Sol.



Hence, option B is the correct response.

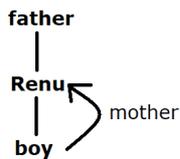
94. Pointing to a boy, Renu said, " His mother is the only child of my father." How is the boy related to the Renu?

- A. Father
- B. Son
- C. Brother
- D. Uncle

Ans. B

Sol. In this question, we show that –

The only child of Renu’s father is Renu herself. Now Renu is the boy’s mother. So the boy is the son of Renu.



Hence, the correct answer is option B.

95. Direction: In each of the following questions three statements are given and these statements are followed by two conclusions numbered I and II. You have to take the given three statements to be true even if they seem to be at variance from commonly known facts. Read the conclusions and then decide which of the given conclusions logically follows from the two given statements.

Statement:

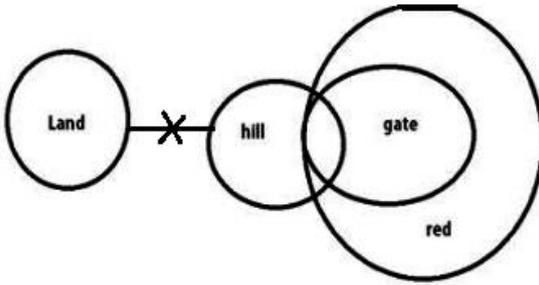
1. No Land is hill.
2. Some Hills are gate.
3. All gates are red.

Conclusion:

- I. Some gates can be Land.
  - II. Some land can never be red is a possibility.
- A. If only conclusion (I) follows
  - B. If only conclusion (II) follows
  - C. If either (II) or (I) follows
  - D. If neither (I) nor (II) follows

Ans. A

Sol. The possible Venn-diagram is:



Conclusion:

I. Some gates can be Land - It is a case of possibility, hence it is true.

II. Some land can never be red is a possibility - False, as the direct relation of land and red is not given so, the possibility can't be established here.

So, only conclusion I is true.

Hence, option A is correct.

96. Two statements are given followed by three conclusions numbered I, II and III. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements.

Statements:

All Labours are Workers.

All Workers are Agents.

Conclusions:

I. Some agents are workers.

II. Some agents are labours.

III. All workers are labours.

A. Only conclusion II and III follow.

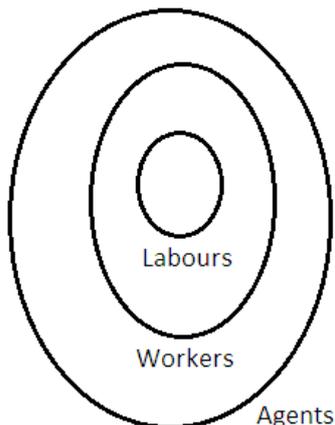
B. Only conclusion I and II follow.

C. Only conclusion I and III follow.

D. All the conclusions I, II and III follow.

Ans. B

Sol. The least Possible diagram is-



Conclusions:

- I. Some agents are workers. (It follows as its obvious from the above diagram)
- II. Some agents are labours. (It also follows as its obvious from the above diagram)
- III. All workers are labours.(It does not follow as its just a possibility, not surety.)

So, Only conclusion I and II follow.

Hence, option B is the correct answer.

97. Two statements are given below and then conclusions I, II and III are given. Assuming the statement to be true, even if it seems to be at variance from commonly known facts, you have to decide which of the given conclusions logically follows the given statements.

Statement:

Some cars are vehicles.

No vehicle is four wheeler.

Conclusion :

- I. There are no cars that are four wheeler.
  - II. All four wheelers are cars.
  - III. Some vehicles are cars.
- A. Only conclusion I follows.
  - B. Both conclusions I and II follow.
  - C. Only conclusion II follows.
  - D. Only conclusion III follows.

Ans. D

Sol.



Conclusion:

- I. There are no cars that are four wheeler. – (false) as there is no relation between them.
- II. All four wheelers are cars. – (false) it is a possibility case.
- III. Some vehicles are cars. – (true) it is clearly shown In the diagram.

Hence, option (D) is correct.

98. In the following question below are given some statements followed by some conclusions. Taking the given statements to be true even if they seem to be at variance from commonly known facts, read all the conclusions and then decide which of the given conclusion logically follows the given statements.

Statements:

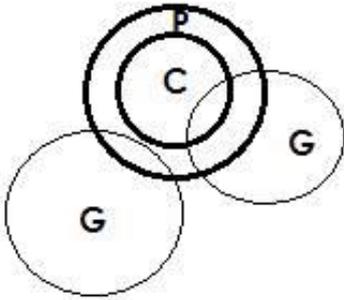
- I. All cups are plates.
- II. Some plates are glass.

Conclusions:

- I. Some glasses are cups.
- II. All glasses are cups.
- A. Only conclusion (I) follows.
- B. Only conclusion (II) follows.
- C. Neither conclusion (I) nor conclusion (II) follows.
- D. Both conclusions follow.

Ans. C

Sol.



Clearly none of the given conclusions follow.

Hence, option C is the correct response.

99. Direction: Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusions logically follow(s) from the statements.

Statements :

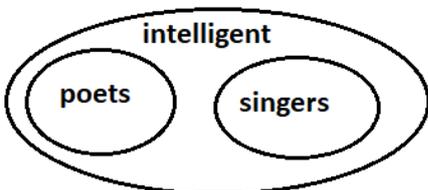
- 1. All poets are intelligent.
- 2. All singers are intelligent.

Conclusions:

- I. All singers are poets.
- II. Some intelligent are not singers.
- A. Only conclusion I follows
- B. Only conclusion II follows
- C. Either conclusion I or II follows
- D. Neither conclusion I nor II follows

Ans. D

Sol. The least possible Venn-diagram is:



Conclusions:

I. All singers are poets - It is not a definite case, hence false.

II. Some intelligent are not singers - It is not a definite case, hence false.

So, neither conclusion I nor II follows

Hence, option D is the correct answer.

100. In the following question below are given some statements followed by some conclusions. Taking the given statements to be true even if they seem to be at variance from commonly known facts, read all the conclusions and then decide which of the given conclusion logically follows the given statements.

Statements:

I. All dens are spiral.

II. Some spirals are cards.

Conclusions:

I. Some spirals are not cards.

II. Some dens are not cards.

III. Some cards are den.

A. Only conclusion (I) and conclusion (II) follow.

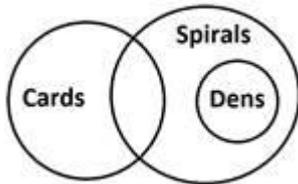
B. Only conclusion (III) follows.

C. All conclusions follow.

D. No conclusion follows.

Ans. D

Sol. The possible Venn-diagram of the given statements is –



It's clear that no conclusion follows.

Hence, option D is correct.

\*\*\*\*

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