

## RRB PO Pre 2022 (20th August) Shift-Wise Previous Year Paper Mock 02

**Q1. If in the number "8634726521, position of the first and the second digit are interchanged, positions of the third and fourth digit are interchanged and so on till the positions of 9<sup>th</sup> and 10<sup>th</sup> digit are interchanged, then which digit will be 6<sup>th</sup> from the left end?**

- (a) 7
- (b) 1
- (c) 3
- (d) 9
- (e) None of these

**Directions (2-6): Study the following information carefully and answer the questions given below:**

There are ten persons i.e. A, B, C, D, E, F, G, H, I and J who lives in a building having five floors such that ground floor is numbered as 1 and above it is 2 and so on up to the top floor numbered as 5. Each of the floor consist of 2 flats as flat-1 and flat-2. Flat-1 of floor-2 is immediately above flat-1 of floor-1 and immediately below flat-1 of floor-3 and the same way followed by flat-2. Flat-2 is in east of flat-1.

F lives in east of A. B lives above I in an odd numbered floor. Two floors gap between B and J who lives in odd numbered flat. D lives above G and both live in same numbered flat. As many floors are above A as below of F. One floor gap between floor of F and H, but flat number of both is different. E does not live on same floor of D. I live on even numbered floor and even numbered flat. Two floors gap between floors of I and C who lives in flat-1.

**Q2. Who among the following lives in Flat-1 of 4<sup>th</sup> floor?**

- (a) H
- (b) D
- (c) E
- (d) B
- (e) C

**Q3. C lives on which floor?**

- (a) 1<sup>st</sup>
- (b) 2<sup>nd</sup>
- (c) 3<sup>rd</sup>
- (d) 4<sup>th</sup>
- (e) 5<sup>th</sup>

**Q4. Four of the following five belongs to a group in a certain way. Who does not belong to the group?**

- (a) H
- (b) A
- (c) G
- (d) B
- (e) J

**Q5. J lives on which floor and flat respectively?**

- (a) 4,2
- (b) 5,1
- (c) 1,2
- (d) 2,1
- (e) 4,1

**Q6. Who among the following lives on even numbered floor and even number flat?**

- (a) H
- (b) I
- (c) G
- (d) J
- (e) E

**Directions (7-9):** In each of the questions below some statements are given followed by two conclusions. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

**Q7.**

**Statements:**

Only Balls is Alloy.

No Balls are cats.

Only few Cats are Dogs.

**Conclusions:**

**I.** Some alloys are cats

**II.** Some Balls are Dogs.

- (a) If only conclusion I follows.
- (b) If only conclusion II follows.
- (c) If either conclusion I or II follows.
- (d) If neither conclusion I nor II follows.
- (e) If both conclusions I and II follow.

**Q8.**

**Statements:**

Only few cats are dogs.

All dogs are Tigers.

Only few Tigers are Zebra.

**Conclusions:**

**I.** Some Cats Being Zebra is a Possibility.

**II.** All Zebra being dogs is a Possibility.

- 
- (a) If only conclusion I follows.  
(b) If only conclusion II follows.  
(c) If either conclusion I or II follows.  
(d) If neither conclusion I nor II follows.  
(e) If both conclusions I and II follow.

**Q9.**

**Statements:**

All Mouse are books.

All books are laptops.

**Conclusions:**

**I.** All books are Mouse.

**II.** All Laptops are Mouse.

- (a) If only conclusion I follows.  
(b) If only conclusion II follows.  
(c) If either conclusion I or II follows.  
(d) If neither conclusion I nor II follows.  
(e) If both conclusions I and II follow.

**Directions (10-14):** Study the following information carefully and answer the questions given below:

**In a certain code:**

“Welcome we are” is coded as “xf bf go”

“We are great going” is coded as “xf bf hu hh”

“Great persons are cool” is coded as “hu qt bf dm”

“Cool being great” is coded as “dm ch hu”

**Q10.** What is the code for the word “Great”?

- (a) bf  
(b) hu  
(c) qt  
(d) dm  
(e) None of the above

**Q11.** What is the code for the word “Persons”?

- (a) bf  
(b) hu  
(c) qt  
(d) dm  
(e) None of the above

**Q12. Which of the following word is coded as “ch”?**

- (a) we
- (b) are
- (c) Great
- (d) Being
- (e) None of the above

**Q13. What is the code for the word “cool”?**

- (a) bf
- (b) hu
- (c) qt
- (d) dm
- (e) None of the above

**Q14. Which of the following word is coded as “xf”?**

- (a) we
- (b) are
- (c) Great
- (d) Persons
- (e) None of the above

**Directions (15-19): Study the following information carefully and answer the questions given below:**

Eight persons i.e., F, G, H, I, J, K, L and M are sitting in two rows in such a way that four persons sit in each row. Persons sitting in row 1 faces north and persons in row 2 faces South. Persons sitting in row 1 face the persons sitting in row 2. They like different dishes i.e., Burger, Pizza, veg puff, Fries, Sandwich, Noodle, Roll and Momo but not necessarily in the same order.

G faces the person who sits 2<sup>nd</sup> to the right of the person who likes Fries. F sits immediate left of the person who likes Burger. H neither like veg puff nor Pizza. I and J sit diagonally opposite to each other. F likes noodle and faces G. H sits immediate right of J who sits in row 1. M likes roll and faces the person who sits 2<sup>nd</sup> to the left of K. The person who likes Sandwich sits immediate right of the person who likes veg puff.

**Q15. Who among the following faces L?**

- (a) H
- (b) The person who like Momo
- (c) F
- (d) The person who like Fries
- (e) None of these

**Q16. Which of the following dish does I likes?**

- (a) Momo
- (b) Fries
- (c) Veg puff
- (d) Sandwich
- (e) None of these

**Q17. Who among the following sits immediate left of the person who likes Pizza?**

- (a) G
- (b) The person who likes Roll
- (c) I
- (d) The person who likes Veg puff
- (e) None of these

**Q18. Which of the following is true regarding M?**

- (a) M sits at the extreme end
- (b) L and G are not immediate neighbours of M
- (c) M faces the person who likes Momo
- (d) Two persons sit between M and L
- (e) All are true

**Q19. Four of the following five are alike in a certain way based from a group, find the one which does not belong to that group?**

- (a) J
- (b) G
- (c) K
- (d) L
- (e) I

**Directions (20-23): In this question, relationship between different elements is shown in the statements. The statements are followed by conclusions. Study the conclusions based on the given statement select the appropriate answer.**

**Q20.**

**Statements:**  $P1 > P2 = P3 < P4 \leq P5 > P6$

**Conclusions:**

- I.**  $P5 > P2$
- II.**  $P6 > P3$

- (a) If only conclusion I follows
- (b) If only conclusion II follows
- (c) If either conclusion I or conclusion II follows
- (d) If neither conclusion I nor conclusion II follows
- (e) If both conclusions I and II follow

**Q21.**

**Statements:**  $P \geq N > D \geq G < B \leq J$

**Conclusions:**

**I.**  $G < P$

**II.**  $G < J$

- (a) If only conclusion I follows
- (b) If only conclusion II follows
- (c) If either conclusion I or conclusion II follows
- (d) If neither conclusion I nor conclusion II follows
- (e) If both conclusions I and II follow

**Q22.**

**Statements:**  $Q \leq E < I > N = R \geq S$

**Conclusions:**

**I.**  $E \geq S$

**II.**  $S \leq N$

- (a) If only conclusion I follows
- (b) If only conclusion II follows
- (c) If either conclusion I or conclusion II follows
- (d) If neither conclusion I nor conclusion II follows
- (e) If both conclusions I and II follow

**Q23.**

**Statements:**  $R = S \geq Y \geq M < W > O$

**Conclusions:**

**I.**  $Y < M$

**II.**  $O > S$

- (a) If only conclusion I follows
- (b) If only conclusion II follows
- (c) If either conclusion I or conclusion II follows
- (d) If neither conclusion I nor conclusion II follows
- (e) If both conclusions I and II follow

**Directions (24-28):** Study the following information carefully and answer the questions given below:

Seven persons P, Q, R, S, T, U and V have an exam on different days of the same week starting from Monday to Sunday. They have their exam in seven different cities viz. A, B, C, D, E, F and G. The order of persons and cities are not necessarily in the same order. U has an exam in City D on Wednesday. Q does not have an exam in city A and C but his exam is on the next day of V who has an exam in City F. T has an exam in City E on Friday. P has an exam on Monday but not in City C and G. S has an exam in City A but not on Tuesday.

**Q24. Who has exam on Saturday?**

- (a) S
- (b) Q
- (c) V
- (d) Either S or V
- (e) None of These

**Q25. On which day does Q has exam?**

- (a) Sunday
- (b) Saturday
- (c) Tuesday
- (d) Cannot be determined
- (e) None of These

**Q26. S has exam on which day?**

- (a) Saturday
- (b) Sunday
- (c) Tuesday
- (d) Thursday
- (e) None of These

**Q27. Which of the following combinations of person-city and day is correct?**

- (a) P-B-Wednesday
- (b) R-B-Monday
- (c) R-C-Monday
- (d) P-G-Sunday
- (e) None of These

**Q28. Who has an exam in City C and on which day?**

- (a) R, Thursday
- (b) R, Tuesday
- (c) Q, Saturday
- (d) Q, Sunday
- (e) None of These

**Directions (29-31): Study the following information and answer the questions given below.**

In a family of nine members, there are five female members. There are three married couples in this family. R and Q both are mothers of two children. T is the brother-in-law of R. P is the father of R. V is the son-in-law of Q. Y is the brother of X. W is the daughter of S. W and V has no siblings. R has a sister.

**Q29. How is X related to T?**

- (a) Nephew
- (b) Niece
- (c) Aunt
- (d) Either (a) or (b)
- (e) Cannot be determined

**Q30. How is S related to R?**

- (a) Brother
- (b) Sister
- (c) Sister-in-law
- (d) Mother
- (e) Cannot be determined

**Q31. How is Q related to W?**

- (a) Daughter
- (b) Aunt
- (c) Mother
- (d) Grandmother
- (e) None of these

**Directions (32-36): Study the following information carefully and answer the questions given below:**

There are eight boys i.e. A, B, C, D, P, Q, R and S sit around a circular table but not necessarily in the same order. Some of them are facing inside to the centre while rest are facing outside from the centre. R sits 2<sup>nd</sup> to the right of S. Q sits immediate left of P who sits 2<sup>nd</sup> to the left of R. Q does not sit near to R. A does not sit near to R. P sits 3<sup>rd</sup> to the left of D who faces opposite direction with respect to R. Both Q and A are facing opposite direction with respect to B. The immediate neighbours of S are facing opposite direction to each other. B sits 2<sup>nd</sup> to the right of C who faces inside.

**Q32. Who among the following boy sits immediate right of the one who sits opposite to P?**

- (a) D
- (b) B
- (c) R
- (d) C
- (e) None of these

**Q33. How many boys are facing outside from the centre?**

- (a) None
- (b) Two
- (c) Four
- (d) Five
- (e) None of these



**Q34. Who among the following boy sits 3<sup>rd</sup> to the right of R?**

- (a) D
- (b) A
- (c) Q
- (d) B
- (e) None of these

**Q35. If A interchanged his position with B, then who among the following boy sits 2<sup>nd</sup> to the left of A?**

- (a) D
- (b) C
- (c) S
- (d) Q
- (e) R

**Q36. Four of the following five belong to a group in a certain way, which among the following does not belong to that group?**

- (a) Q and R
- (b) S and C
- (c) B and D
- (d) Q and S
- (e) A and P

**Q37. How many letter(s) will remain in the same position in the word 'JUNGLEBOOK' when they are arranged in alphabetical order from left to right?**

- (a) Two
- (b) One
- (c) Three
- (d) More than Three
- (e) None

**Directions (38-40): Study the following information carefully and answer the questions given below:**

Seven persons are arranged according to the number of books they have in descending order from left to right. More than three persons have books between P and the one who has 40 books. T has 17 books which is 5<sup>th</sup> maximum. R has just more books to A who have not just more and just fewer books to T. M has more books to C but not more as E who does not have books in a multiple of 5. R does not have the highest number of books.

**Q38. How many persons have least book than C?**

- (a) None
- (b) One
- (c) More than four
- (d) Two
- (e) None of these

**Q39. What may be the possible number of books does M have?**

- (a) 42
- (b) 13
- (c) 10
- (d) 21
- (e) 16

**Q40. If A has 12 books more to T and P has 9 books less to T, then what is the sum of the number of books of A and P?**

- (a) 22
- (b) 37
- (c) 47
- (d) 29
- (e) 28

**Directions (41-45): Read the data carefully and answer the questions.**

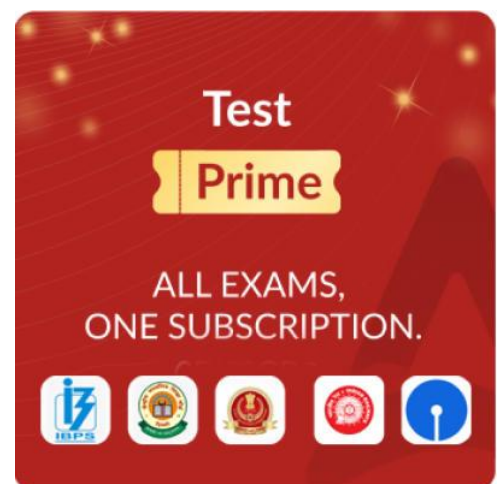
There are total 700 employees in three companies - A, B and C. Total employees in A is 8% more than that of in C, while the ratio of total employees in B to that of in A is 2 : 3. The ratio of male employees in A to that of in B is 10 : 7. The total female employees in A are 60% more than total female employees in B. Total male employees in C is  $42\frac{6}{7}\%$  more than total male employees in B.

**Q41. Total male employees in A are what percent more than total female employees in C?**

- (a) 50%
- (b) 60%
- (c) 55%
- (d) 45%
- (e) 40%

**Q42. Find average numbers of female employees in A & C?**

- (a) 150
- (b) 110
- (c) 130
- (d) 140
- (e) 120



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**Q43. Find total number of male employees in all three companies?**

- (a) 405
- (b) 415
- (c) 400
- (d) 425
- (e) 395

**Q44. Find the ratio of male employees in B to female employee in A?**

- (a) 6 : 7
- (b) 7 : 9
- (c) 7 : 10
- (d) 7 : 12
- (e) 7 : 8

**Q45. Find the difference between total male employees and total female employees in these three companies?**

- (a) 130
- (b) 120
- (c) 110
- (d) 180
- (e) 160

**Directions (46-50): What approximate value should come in place of question mark (?) in following questions.**

$$24.97\% \text{ of } 1459.98 - ?\% \text{ of } 1120.4 = 29.04$$

**Q46.**

- (a) 34
- (b) 27
- (c) 25
- (d) 20
- (e) 30

**Q47.**  $\sqrt{575.99} + \sqrt[3]{2743.99} - 2.01 = ?^2$

- (a) 6
- (b) 7
- (c) 9
- (d) 4
- (e) 5

**Q48. 10.98% of 11.04% of 10999.98 = ?**

- (a) 121
- (b) 130
- (c) 137
- (d) 133
- (e) 127

**Q49.  $20.94 \div 12.06 \times 15.99 \div 7.02 = ?$**

- (a) 4
- (b) 8
- (c) 19
- (d) 16
- (e) 12

**Q50.  $120.03 \div \frac{5}{8}$  of  $24.08 \times 3.95 = ?$**

- (a) 36
- (b) 28
- (c) 32
- (d) 42
- (e) 22

**Directions (51-56): Find out the wrong number in following number series:**

**Q51. 124, 180, 225, 261, 290, 312, 335**

- (a) 124
- (b) 312
- (c) 290
- (d) 225
- (e) 261

**Q52. 91, 235, 163, 199, 181, 190, 187.5**

- (a) 91
- (b) 235
- (c) 163
- (d) 187.5
- (e) 199

**Q53. 380, 385, 393, 407, 433, 486, 581**

- (a) 380
- (b) 385
- (c) 393
- (d) 486
- (e) 407

**Q54. 128, 32, 96, 240, 840, 3780, 20790**

- (a) 32
- (b) 96
- (c) 240
- (d) 840
- (e) 3780

**Q55. 665, 630, 606, 591, 581, 580, 580**

- (a) 606
- (b) 665
- (c) 581
- (d) 630
- (e) 591

**Q56. 7260, 7240, 7210, 7120, 6850, 6040, 3610**

- (a) 7210
- (b) 6850
- (c) 6040
- (d) 7240
- (e) 7260

**Q57. The amount invested by P to Q is in the ratio of 2 : 3 and the amount invested by P and R is in the ratio of 5 : 7 respectively. If the profit earned by P at the end of year is Rs. 76 less than earned by R, then find the profit earned by Q?**

- (a) Rs. 95
- (b) Rs. 228
- (c) Rs. 285
- (d) Rs. 380
- (e) Rs. 114

**Q58. The ratio of present age of Rita to Kapil is 3 : 4 age and age of Manish is  $\frac{5}{3}$  times of Rita's present age. After ten years, the ratio of Manish, Rita and Kapil's age is 15 : 11 : 13. Find Rita's age five years ago ?**

- (a) 6 years
- (b) 8 years
- (c) 9 years
- (d) 7 years
- (e) 5 years

**Q59. A shopkeeper has two quality rice. Rice A is sold at Rs. 40 per kg and Rice B is sold at Rs. 25 per kg. He mixed both the rice together and sold the mixture at Rs. 36 per kg. Find the ratio of quantity of rice A to the total mixture?**

- (a) 11 : 4
- (b) 4 : 11
- (c) 4 : 15
- (d) 11 : 15
- (e) None of these

**Q60. A man invested a sum of Rs. 'P' for two years in scheme A at 20% p.a. on compound interest annually. The amount received at end of two years from scheme A, reinvested in scheme B for four years at 25% p.a. on simple interest. If total interest received from scheme B is Rs 1650 more than P, then find 'P'?**

- (a) Rs 3550
- (b) Rs 2750
- (c) Rs 3450
- (d) Rs 3750
- (e) Rs. 3250

**Q61. The ratio of length of train A to B is 5 : 4 and speed of train A is 90 km/hr. If train A crosses a pole in 12 seconds and train B crosses train A in 36 seconds while running in same direction, then find time taken by train B to cross a 400 meters long platform.**

- (a) 10 seconds
- (b) 12 seconds
- (c) 15 seconds
- (d) 64 seconds
- (e) 18 seconds

**Q62. A boat travels in upstream. If the speed of boat in upstream is decreased by 40% then it is equal to the speed of current and speed of boat in still water is given as 240 km/hr, then find upstream speed of boat? (In km/hr).**

- (a) 120
- (b) 180
- (c) 150
- (d) 210
- (e) 125

**Q63.** A shopkeeper marks up the price of an article by 40% above cost price. He gives 25% discount on marked price and earns Rs 420 profit. Find his profit if he gives discount of 20% in place of 25%.

- (a) Rs 1204
- (b) Rs 1240
- (c) Rs 1180
- (d) Rs 1008
- (e) Rs 1080

**Q64.** A can complete 60% of a work in 9 days. A and B together can complete 20% of the same work in  $\frac{7}{4}$  days. Find time taken by B to complete the work alone?

- (a) 25 days
- (b) 21 days
- (c) 18 days
- (d) 24 days
- (e) 15 days

**Q65.** Aakash bought a mobile worth Rs 12000 and paid a rent of Rs 9000 from his salary. If he used 70% of the monthly salary for buying mobile and paying rent together, then find his monthly salary.

- (a) Rs 20000
- (b) Rs 21000
- (c) Rs 79000
- (d) Rs 35000
- (e) Rs 30000

**Directions (66-70):** Table given below shows total number of people visited four different national parks. Read the following table carefully and answer the questions given below.

National Park	Total number of people visited	% Of children visited	% Of male visited
P	2,400	10%	30%
Q	2,000	5%	40%
R	4,500	15%	50%
S	6,000	20%	45%

**Note:** only male, female and children visit in these four national parks.

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**Q66. Find the ratio of total number of females visit P and Q together to total number of children visit R and S together?**

- (a) 508 :375
- (b) 513 :370
- (c) 557 :379
- (d) 580 :349
- (e) 528 :311

**Q67. Find the average no. of male visited S and P?**

- (a) 1670
- (b) 1810
- (c) 1710
- (d) 1720
- (e) 2310

**Q68. The total number of females visited S is what percent of the total number of males visited Q?**

- (a) 291.5%
- (b) 277.5%
- (c) 232.5%
- (d) 215.5%
- (e) 262.5%

**Q69. Find the difference between the total number of children visited P & S together and total number of females visited Q & R together?**

- (a) 1460
- (b) 1955
- (c) 1235
- (d) 1825
- (e) 1145

**Q70. Find the total number of females visited R, Q and S together?**

- (a) 5565
- (b) 4775
- (c) 4535
- (d) 4825
- (e) 4790

**Q71. A milkman mixed  $(y+30)$  liters of water in 150 liters of milk and then again replaced 35 liters of the mixture with milk. If quantity of milk in the final mixture is 160 liters, then find 'y'?**



- 
- (a) 45 liters
  - (b) 40 liters
  - (c) 35 liters
  - (d) 30 liters
  - (e) 25 liters

**Q72. Speed of fan is successively reduced by 10% and 15%, and if speed of fan is successively reduced by 20% and Z% so that overall change of speed is same as previous change then, find 'Z'?**

- (a) 4.275%
- (b) 4.375%
- (c) 3.375%
- (d) 3.275%
- (e) 4.625%

**Q73. Cost price of an article is Rs.100 and discount given on the article is Rs.4 more than the profit earned on it. If ratio of selling price to marked price of the article is 41 : 50 then find the discount offered?**

- (a) Rs. 31.5
- (b) Rs. 30
- (c) Rs. 36
- (d) Rs. 25
- (e) Rs. 27

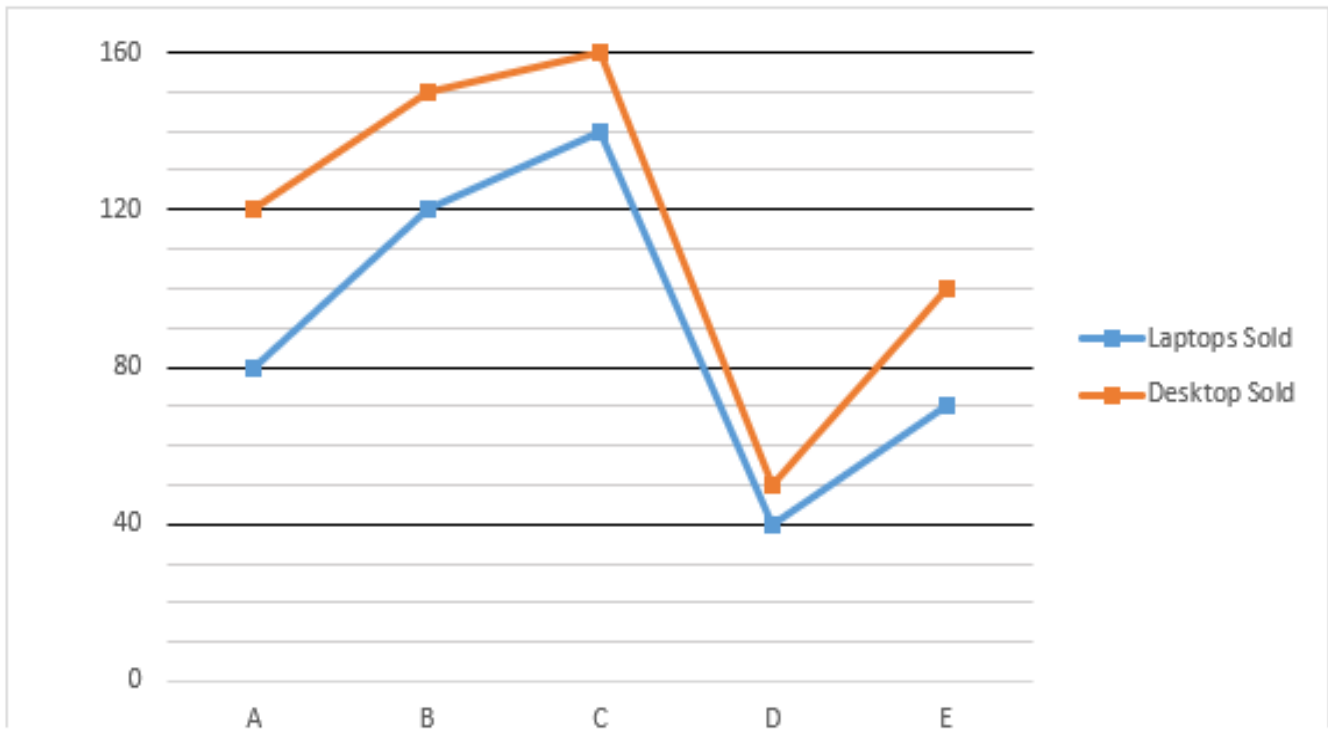
**Q74. a, b, c and d are four consecutive numbers, if the sum of 'a' and 'c' is 124, what is the product of 'b' and 'd'?**

- (a) 4032
- (b) 3782
- (c) 3906
- (d) 3904
- (e) 3968

**Q75. The height of a triangle is equal to the perimeter of a square whose diagonal is  $9\sqrt{2}$  metre and the base of the same triangle is equal to the side of the another Square whose area is  $784 \text{ m}^2$ . What is the area of the triangle (In  $\text{m}^2$ ).**

- (a) 504
- (b) 558
- (c) 478
- (d) 522
- (e) 496

Directions (76-80): Line chart given below shows the number of laptops & Desktops sold by five different shops (A, B, C, D and E). Study the line chart given below and answer the following questions.



Q76. Total number of Laptops & Desktops sold by shop A are what percent more or less than total Desktops sold by B & E together?

- (a) 80%
- (b) 30%
- (c) 50%
- (d) 20%
- (e) 60%

Q77. The ratio of 4GB to 8GB laptops & Desktops sold by shop C is 3: 2 & 5: 3 respectively. Find the ratio of total number of 4GB (Laptops + Desktops) sold by shop C to total number of Laptops sold by shop B?

- (a) 7: 5
- (b) 23: 15
- (c) 3: 2
- (d) 21: 13
- (e) 4: 3

**Q78. Total number of Laptops sold by shop C & E together are what percent of total number of Laptops & Desktops sold by shop D?**

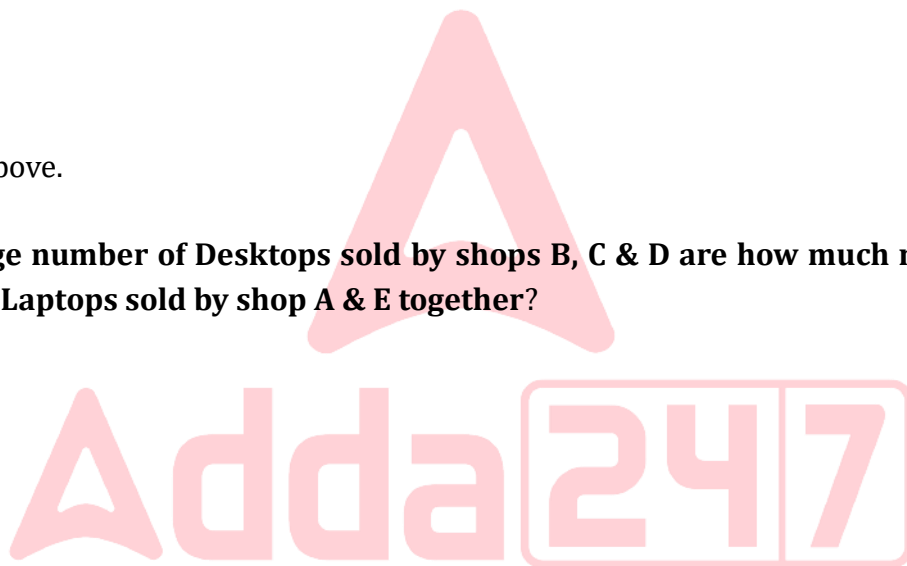
- (a)  $233\frac{1}{3}\%$
- (b)  $266\frac{2}{3}\%$
- (c) 250%
- (d) 225%
- (e) 275%

**Q79. If total Laptops sold by shop X are 90 more than total Laptops sold by shop E and ratio of 4GB to 8GB Laptops sold by B & X is 11:9 and 3:7 respectively, then find number of 8GB Laptops sold by shop B & X together?**

- (a) 145
- (b) 128
- (c) 134
- (d) 166
- (e) None of the above.

**Q80. The average number of Desktops sold by shops B, C & D are how much more or less than total number of Laptops sold by shop A & E together?**

- (a) 10
- (b) 20
- (c) 30
- (d) 50
- (e) 40



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## Solutions

**S1. Ans.(a)**

**Sol.** 6843275612

**S2. Ans.(c)**

**Sol. Final arrangement:**

Floors	Flat-1	Flat-2
5	H	B
4	E	I
3	A	F
2	J	D
1	C	G

**Explanation:**

**Clues** F lives east to A. As many floors are above A as below of F. One floor gap between floor of F and H, but flat number of both is different.

**Inference:** Here we get 2 possible cases i.e., Case 1 and Case 2.

Floor	Case 1		Case 2	
	Flat-1	Flat-2	Flat-1	Flat-2
5	H			
4				
3	A	F	A	F
2				
1			H	

**Clues:** I live on even numbered floor and even numbered flat. Two floors gap between floors of I and C who lives in flat-1.

**Inference:** From the above condition it is clear that I either lives in Flat 2 of Floor 4 in Case 1 or in Flat 2 of Floor 2 in Case 2.

Floor	Case 1		Case 2	
	Flat-1	Flat-2	Flat-1	Flat-2
5	H		C	
4		I		
3	A	F	A	F
2				I
1	C		H	

**Clues:** B lives above I in odd numbered floor. Two floors gap between B and J who lives in odd numbered flat. D lives above G and both live in same numbered flat.

**Inference:** From the above conditions it is clear that J lives in Flat 1 in both cases.

Floor	Case 1		Case 2	
	Flat-1	Flat-2	Flat-1	Flat-2
5	H	B	C	B
4		I		D
3	A	F	A	F
2	J	D	J	I
1	C	G	H	G

**Clues:** E does not live on same floor of D.

**Inference:** From the above conditions Case-2 will be eliminated. So, the final arrangement will be:

Floors	Flat-1	Flat-2
5	H	B
4	E	I
3	A	F
2	J	D
1	C	G

**S3. Ans.(a)**

**Sol. Final arrangement:**

Floors	Flat-1	Flat-2
5	H	B
4	E	I
3	A	F
2	J	D
1	C	G

**Explanation:**

**Clues** F lives east to A. As many floors are above A as below of F. One floor gap between floor of F and H, but flat number of both is different.

**Inference:** Here we get 2 possible cases i.e., Case 1 and Case 2.

Floor	Case 1		Case 2	
	Flat-1	Flat-2	Flat-1	Flat-2
5	H			
4				
3	A	F	A	F
2				
1			H	

**Clues:** I live on even numbered floor and even numbered flat. Two floors gap between floors of I and C who lives in flat-1.

**Inference:** From the above condition it is clear that I either lives in Flat 2 of Floor 4 in Case 1 or in Flat 2 of Floor 2 in Case 2.

Floor	Case 1		Case 2	
	Flat-1	Flat-2	Flat-1	Flat-2
5	H		C	
4		I		
3	A	F	A	F
2				I
1	C		H	

**Clues:** B lives above I in odd numbered floor. Two floors gap between B and J who lives in odd numbered flat. D lives above G and both live in same numbered flat.

**Inference:** From the above conditions it is clear that J lives in Flat 1 in both cases.

Floor	Case 1		Case 2	
	Flat-1	Flat-2	Flat-1	Flat-2
5	H	B	C	B
4		I		D
3	A	F	A	F
2	J	D	J	I
1	C	G	H	G

**Clues:** E does not live on same floor of D.

**Inference:** From the above conditions Case-2 will be eliminated. So, the final arrangement will be:

Floors	Flat-1	Flat-2
5	H	B
4	E	I
3	A	F
2	J	D
1	C	G

**S4. Ans.(e)**

**Sol. Final arrangement:**

Floors	Flat-1	Flat-2
5	H	B
4	E	I
3	A	F
2	J	D
1	C	G

**Explanation:**

**Clues** F lives east to A. As many floors are above A as below of F. One floor gap between floor of F and H, but flat number of both is different.

**Inference:** Here we get 2 possible cases i.e., Case 1 and Case 2.

Floor	Case 1		Case 2	
	Flat-1	Flat-2	Flat-1	Flat-2
5	H			
4				
3	A	F	A	F
2				
1			H	

**Clues:** I live on even numbered floor and even numbered flat. Two floors gap between floors of I and C who lives in flat-1.

**Inference:** From the above condition it is clear that I either lives in Flat 2 of Floor 4 in Case 1 or in Flat 2 of Floor 2 in Case 2.

Floor	Case 1		Case 2	
	Flat-1	Flat-2	Flat-1	Flat-2
5	H		C	
4		I		
3	A	F	A	F
2				I
1	C		H	

**Clues:** B lives above I in odd numbered floor. Two floors gap between B and J who lives in odd numbered flat. D lives above G and both live in same numbered flat.

**Inference:** From the above conditions it is clear that J lives in Flat 1 in both cases.

Floor	Case 1		Case 2	
	Flat-1	Flat-2	Flat-1	Flat-2
5	H	B	C	B
4		I		D
3	A	F	A	F
2	J	D	J	I
1	C	G	H	G

**Clues:** E does not live on same floor of D.

**Inference:** From the above conditions Case-2 will be eliminated. So, the final arrangement will be:

Floors	Flat-1	Flat-2
5	H	B
4	E	I
3	A	F
2	J	D
1	C	G

**S5. Ans.(d)**

**Sol. Final arrangement:**



Floors	Flat-1	Flat-2
5	H	B
4	E	I
3	A	F
2	J	D
1	C	G

**Explanation:**

**Clues** F lives east to A. As many floors are above A as below of F. One floor gap between floor of F and H, but flat number of both is different.

**Inference:** Here we get 2 possible cases i.e., Case 1 and Case 2.

Floor	Case 1		Case 2	
	Flat-1	Flat-2	Flat-1	Flat-2
5	H			
4				
3	A	F	A	F
2				
1			H	

**Clues:** I live on even numbered floor and even numbered flat. Two floors gap between floors of I and C who lives in flat-1.

**Inference:** From the above condition it is clear that I either lives in Flat 2 of Floor 4 in Case 1 or in Flat 2 of Floor 2 in Case 2.

Floor	Case 1		Case 2	
	Flat-1	Flat-2	Flat-1	Flat-2
5	H		C	
4		I		
3	A	F	A	F
2				I
1	C		H	

**Clues:** B lives above I in odd numbered floor. Two floors gap between B and J who lives in odd numbered flat. D lives above G and both live in same numbered flat.

**Inference:** From the above conditions it is clear that J lives in Flat 1 in both cases.

Floor	Case 1		Case 2	
	Flat-1	Flat-2	Flat-1	Flat-2
5	H	B	C	B
4		I		D
3	A	F	A	F
2	J	D	J	I
1	C	G	H	G

**Clues:** E does not live on same floor of D.

**Inference:** From the above conditions Case-2 will be eliminated. So, the final arrangement will be:

Floors	Flat-1	Flat-2
5	H	B
4	E	I
3	A	F
2	J	D
1	C	G

**S6. Ans.(b)**

**Sol. Final arrangement:**

Floors	Flat-1	Flat-2
5	H	B
4	E	I
3	A	F
2	J	D
1	C	G

**Explanation:**

**Clues** F lives east to A. As many floors are above A as below of F. One floor gap between floor of F and H, but flat number of both is different.

**Inference:** Here we get 2 possible cases i.e., Case 1 and Case 2.

Floor	Case 1		Case 2	
	Flat-1	Flat-2	Flat-1	Flat-2
5	H			
4				
3	A	F	A	F
2				
1			H	

**Clues:** I live on even numbered floor and even numbered flat. Two floors gap between floors of I and C who lives in flat-1.

**Inference:** From the above condition it is clear that I either lives in Flat 2 of Floor 4 in Case 1 or in Flat 2 of Floor 2 in Case 2.

Floor	Case 1		Case 2	
	Flat-1	Flat-2	Flat-1	Flat-2
5	H		C	
4		I		
3	A	F	A	F
2				I
1	C		H	

**Clues:** B lives above I in odd numbered floor. Two floors gap between B and J who lives in odd numbered flat. D lives above G and both live in same numbered flat.

**Inference:** From the above conditions it is clear that J lives in Flat 1 in both cases.

Floor	Case 1		Case 2	
	Flat-1	Flat-2	Flat-1	Flat-2
5	H	B	C	B
4		I		D
3	A	F	A	F
2	J	D	J	I
1	C	G	H	G

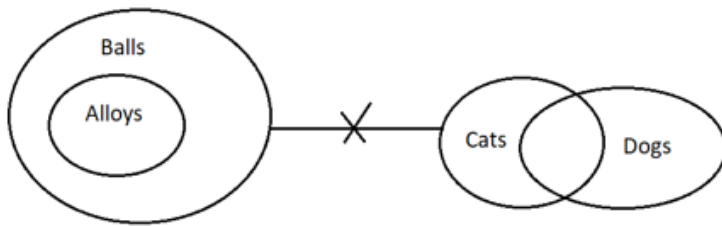
**Clues:** E does not live on same floor of D.

**Inference:** From the above conditions Case-2 will be eliminated. So, the final arrangement will be:

Floors	Flat-1	Flat-2
5	H	B
4	E	I
3	A	F
2	J	D
1	C	G

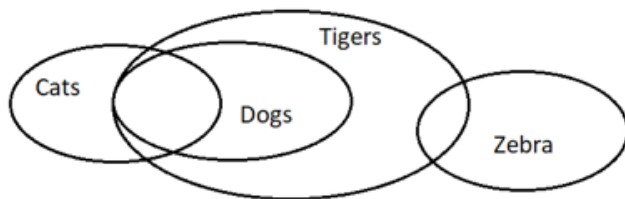
**S7. Ans.(d)**

**Sol.**



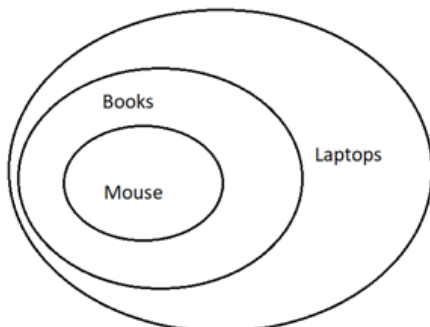
**S8. Ans.(e)**

**Sol.**



**S9. Ans.(d)**

**Sol.**



**S10. Ans.(b)**

**Sol. Final arrangement:**

Words	Code
We	Xf
Are	Bf
Welcome	Go
Great	Hu
Going	Hh
Cool	Dm
Persons	Qt
Being	Ch

**S11. Ans.(c)**

**Sol. Final arrangement:**

Words	Code
We	Xf
Are	Bf
Welcome	Go
Great	Hu
Going	Hh
Cool	Dm
Persons	Qt
Being	Ch



**S12. Ans.(d)**

**Sol. Final arrangement:**

Words	Code
We	Xf
Are	Bf
Welcome	Go
Great	Hu
Going	Hh
Cool	Dm
Persons	Qt
Being	Ch

**S13. Ans.(d)**

**Sol. Final arrangement:**

Words	Code
We	Xf
Are	Bf
Welcome	Go
Great	Hu
Going	Hh
Cool	Dm
Persons	Qt
Being	Ch

**S14. Ans.(a)**

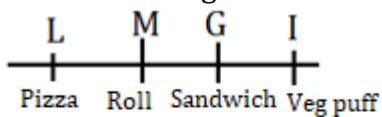
**Sol. Final arrangement:**

Words	Code
We	Xf
Are	Bf
Welcome	Go
Great	Hu
Going	Hh
Cool	Dm
Persons	Qt
Being	Ch

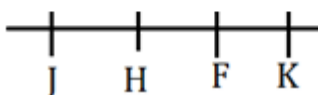


**S15. Ans.(d)**

**Sol. Final arrangement:**



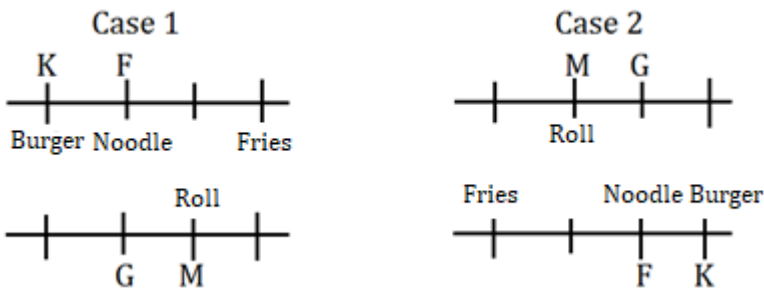
Fries Momo Noodle Burger



**Explanation:**

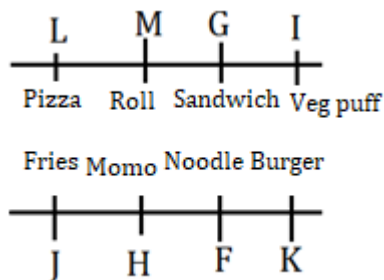
**Clues:** G faces the person who sits 2<sup>nd</sup> to the right of the person who likes Fries. F likes Noodle and faces G. F sits immediate left of the person who likes Burger. M likes Roll and faces the person who sits 2<sup>nd</sup> to the left of K.

**Inference:** Here, we get two possibilities i.e., Case 1 and Case 2.



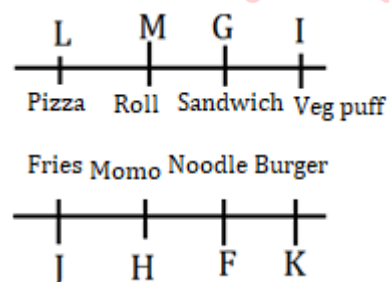
**Clues:** H sits immediate right of J who sits in row 1. I and J sit diagonally opposite to each other. The person who likes Sandwich sits immediate right of the person who likes Veg puff. H neither like Veg puff nor Pizza.

**Inference:** Here, Case 1 is ruled out. So, the final arrangement will be:



**S16. Ans.(c)**

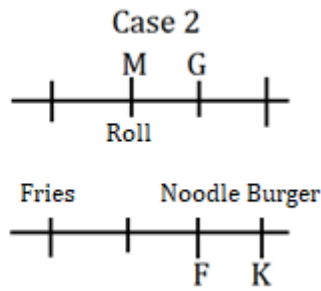
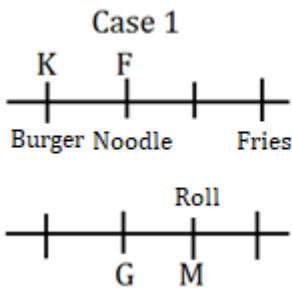
**Sol.** Final arrangement:



**Explanation:**

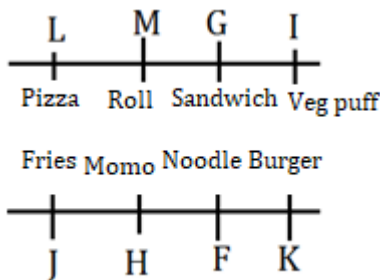
**Clues:** G faces the person who sits 2<sup>nd</sup> to the right of the person who likes Fries. F likes Noodle and faces G. F sits immediate left of the person who likes Burger. M likes Roll and faces the person who sits 2<sup>nd</sup> to the left of K.

**Inference:** Here, we get two possibilities i.e., Case 1 and Case 2.



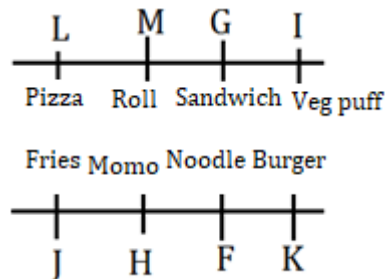
**Clues:** H sits immediate right of J who sits in row 1. I and J sit diagonally opposite to each other. The person who likes Sandwich sits immediate right of the person who likes Veg puff. H neither like Veg puff nor Pizza.

**Inference:** Here, Case 1 is ruled out. So, the final arrangement will be:



**S17. Ans.(b)**

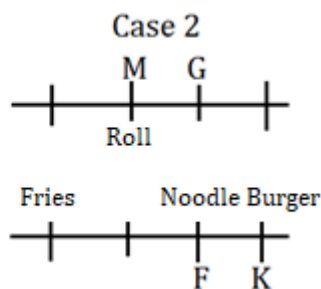
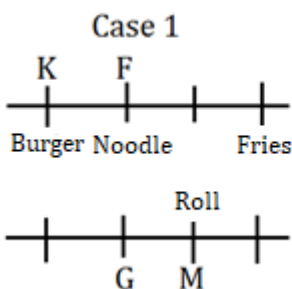
**Sol.** Final arrangement:



**Explanation:**

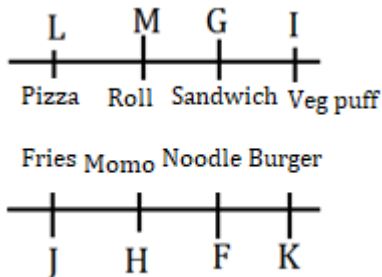
**Clues:** G faces the person who sits 2<sup>nd</sup> to the right of the person who likes Fries. F likes Noodle and faces G. F sits immediate left of the person who likes Burger. M likes Roll and faces the person who sits 2<sup>nd</sup> to the left of K.

**Inference:** Here, we get two possibilities i.e., Case 1 and Case 2.



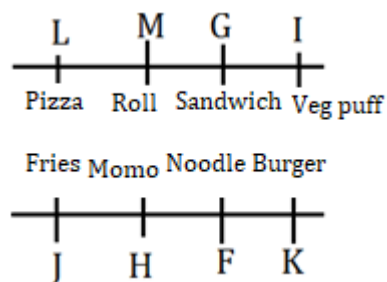
**Clues:** H sits immediate right of J who sits in row 1. I and J sit diagonally opposite to each other. The person who likes Sandwich sits immediate right of the person who likes Veg puff. H neither like Veg puff nor Pizza.

**Inference:** Here, Case 1 is ruled out. So, the final arrangement will be:



**S18. Ans.(c)**

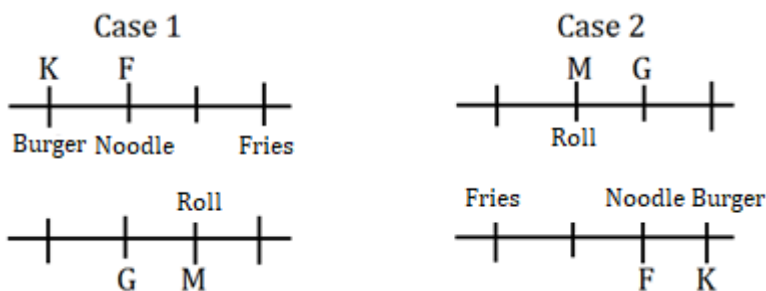
**Sol.** Final arrangement:



**Explanation:**

**Clues:** G faces the person who sits 2<sup>nd</sup> to the right of the person who likes Fries. F likes Noodle and faces G. F sits immediate left of the person who likes Burger. M likes Roll and faces the person who sits 2<sup>nd</sup> to the left of K.

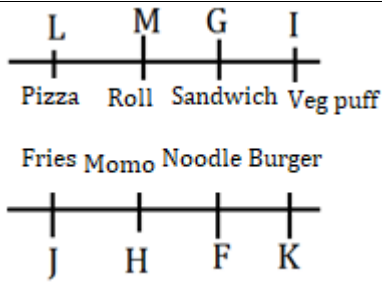
**Inference:** Here, we get two possibilities i.e., Case 1 and Case 2.



**Clues:** H sits immediate right of J who sits in row 1. I and J sit diagonally opposite to each other. The person who likes Sandwich sits immediate right of the person who likes Veg puff. H neither like Veg puff nor Pizza.

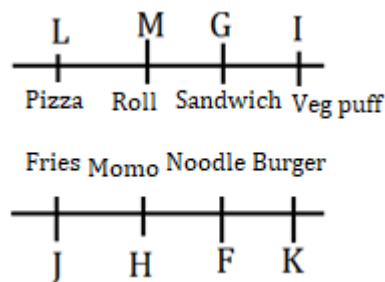
**Inference:** Here, Case 1 is ruled out. So, the final arrangement will be:





**S19. Ans.(b)**

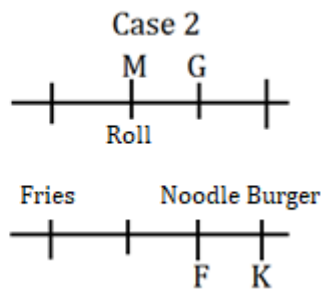
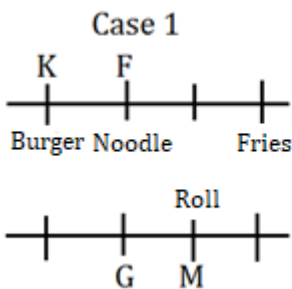
**Sol.** Final arrangement:



**Explanation:**

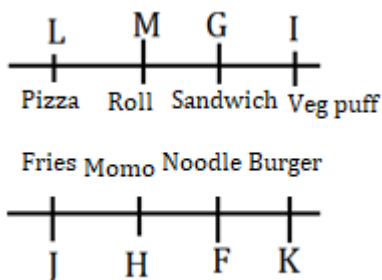
**Clues:** G faces the person who sits 2<sup>nd</sup> to the right of the person who likes Fries. F likes Noodle and faces G. F sits immediate left of the person who likes Burger. M likes Roll and faces the person who sits 2<sup>nd</sup> to the left of K.

**Inference:** Here, we get two possibilities i.e., Case 1 and Case 2.



**Clues:** H sits immediate right of J who sits in row 1. I and J sit diagonally opposite to each other. The person who likes Sandwich sits immediate right of the person who likes Veg puff. H neither like Veg puff nor Pizza.

**Inference:** Here, Case 1 is ruled out. So, the final arrangement will be:



**S20. Ans.(a)**

**Sol.** I.  $P_5 > P_2$  (True)    II.  $P_6 > P_3$  (False)

**S21. Ans.(e)**

**Sol.** I.  $G < P$  (True)    II.  $G < J$  (True)

**S22. Ans.(b)**

**Sol.** I.  $E \geq S$  (False)    II.  $S \leq N$  (True)

**S23. Ans.(d)**

**Sol.** I.  $Y < M$  (False)    II.  $O > S$  (False)

**S24. Ans.(c)**

**Sol. Final arrangement:**

DAY	PERSON	CITY
Monday	P	B
Tuesday	R	C
Wednesday	U	D
Thursday	S	A
Friday	T	E
Saturday	V	F
Sunday	Q	G

**Explanation:**

**Clues:** U has an exam in City D on Wednesday. T has an exam in City E on Friday. P has an exam on Monday but not in City C and G.

**Inference:** From the above conditions it is clear that P does not have exam in City E, D, C and G.

DAY	PERSON	CITY
Monday	P	
Tuesday		
Wednesday	U	D
Thursday		
Friday	T	E
Saturday		
Sunday		

**Clues:** Q does not have an exam in city A and C but his exam is on the next day of V who has an exam in City F. S has an exam in City A but not on Tuesday. It means V has his exam on Saturday and just immediately after that Q has his exam on Sunday.

**Inference:** Final arrangement:

DAY	PERSON	CITY
Monday	P	B
Tuesday	R	C
Wednesday	U	D
Thursday	S	A
Friday	T	E
Saturday	V	F
Sunday	Q	G

**S25. Ans.(a)**

**Sol. Final arrangement:**

DAY	PERSON	CITY
Monday	P	B
Tuesday	R	C
Wednesday	U	D
Thursday	S	A
Friday	T	E
Saturday	V	F
Sunday	Q	G

**Explanation:**

**Clues:** U has an exam in City D on Wednesday. T has an exam in City E on Friday. P has an exam on Monday but not in City C and G.

**Inference:** From the above conditions it is clear that P does not have exam in City E, D, C and G.

DAY	PERSON	CITY
Monday	P	
Tuesday		
Wednesday	U	D
Thursday		
Friday	T	E
Saturday		
Sunday		

**Clues:** Q does not have an exam in city A and C but his exam is on the next day of V who has an exam in City F. S has an exam in City A but not on Tuesday. It means V has his exam on Saturday and just immediately after that Q has his exam on Sunday.

**Inference:** Final arrangement:

DAY	PERSON	CITY
Monday	P	B
Tuesday	R	C
Wednesday	U	D
Thursday	S	A
Friday	T	E
Saturday	V	F
Sunday	Q	G

S26. Ans.(d)

Sol. Final arrangement:

DAY	PERSON	CITY
Monday	P	B
Tuesday	R	C
Wednesday	U	D
Thursday	S	A
Friday	T	E
Saturday	V	F
Sunday	Q	G

**Explanation:**

**Clues:** U has an exam in City D on Wednesday. T has an exam in City E on Friday. P has an exam on Monday but not in City C and G.

**Inference:** From the above conditions it is clear that P does not have exam in City E, D, C and G.

DAY	PERSON	CITY
Monday	P	
Tuesday		
Wednesday	U	D
Thursday		
Friday	T	E
Saturday		
Sunday		

**Clues:** Q does not have an exam in city A and C but his exam is on the next day of V who has an exam in City F. S has an exam in City A but not on Tuesday. It means V has his exam on Saturday and just immediately after that Q has his exam on Sunday.

**Inference:** Final arrangement:

DAY	PERSON	CITY
Monday	P	B
Tuesday	R	C
Wednesday	U	D
Thursday	S	A
Friday	T	E
Saturday	V	F
Sunday	Q	G

**S27. Ans.(e)**

**Sol. Final arrangement:**

DAY	PERSON	CITY
Monday	P	B
Tuesday	R	C
Wednesday	U	D
Thursday	S	A
Friday	T	E
Saturday	V	F
Sunday	Q	G

**Explanation:**

**Clues:** U has an exam in City D on Wednesday. T has an exam in City E on Friday. P has an exam on Monday but not in City C and G.

**Inference:** From the above conditions it is clear that P does not have exam in City E, D, C and G.

DAY	PERSON	CITY
Monday	P	
Tuesday		
Wednesday	U	D
Thursday		
Friday	T	E
Saturday		
Sunday		

**Clues:** Q does not have an exam in city A and C but his exam is on the next day of V who has an exam in City F. S has an exam in City A but not on Tuesday. It means V has his exam on Saturday and just immediately after that Q has his exam on Sunday.

**Inference:** Final arrangement:

DAY	PERSON	CITY
Monday	P	B
Tuesday	R	C
Wednesday	U	D
Thursday	S	A
Friday	T	E
Saturday	V	F
Sunday	Q	G

**S28. Ans.(b)**

**Sol. Final arrangement:**

DAY	PERSON	CITY
Monday	P	B
Tuesday	R	C
Wednesday	U	D
Thursday	S	A
Friday	T	E
Saturday	V	F
Sunday	Q	G

**Explanation:**

**Clues:** U has an exam in City D on Wednesday. T has an exam in City E on Friday. P has an exam on Monday but not in City C and G.

**Inference:** From the above conditions it is clear that P does not have exam in City E, D, C and G.

DAY	PERSON	CITY
Monday	P	
Tuesday		
Wednesday	U	D
Thursday		
Friday	T	E
Saturday		
Sunday		

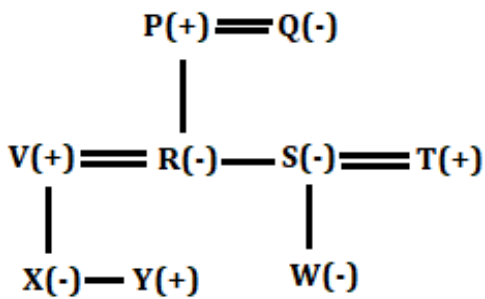
**Clues:** Q does not have an exam in city A and C but his exam is on the next day of V who has an exam in City F. S has an exam in City A but not on Tuesday. It means V has his exam on Saturday and just immediately after that Q has his exam on Sunday.

**Inference:** Final arrangement:

DAY	PERSON	CITY
Monday	P	B
Tuesday	R	C
Wednesday	U	D
Thursday	S	A
Friday	T	E
Saturday	V	F
Sunday	Q	G

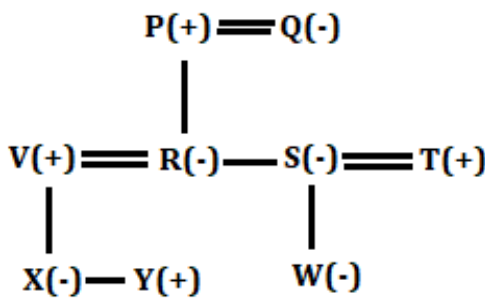
S29. Ans.(b)

Sol.



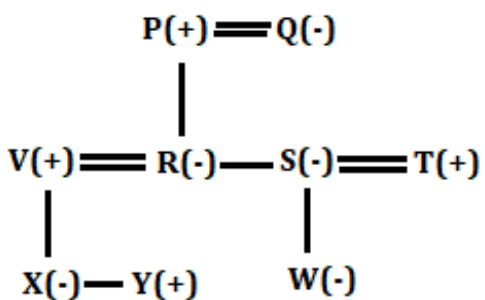
S30. Ans.(b)

Sol.



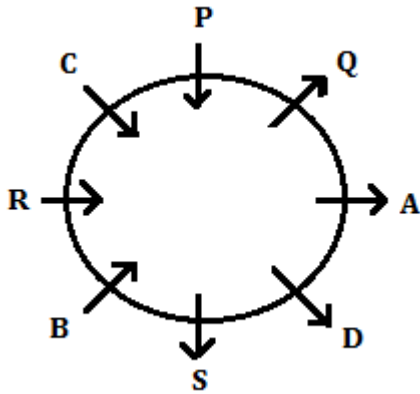
S31. Ans.(d)

Sol.



S32. Ans.(b)

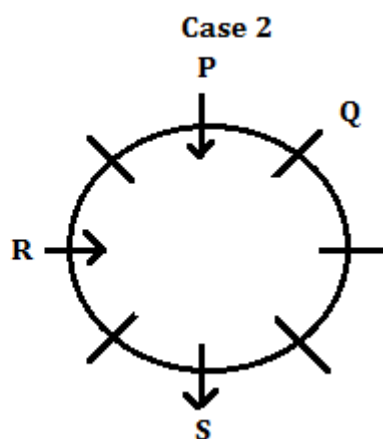
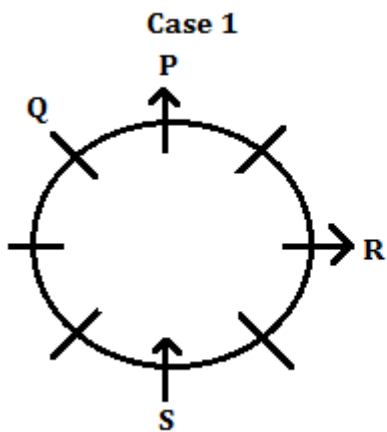
Sol. Final arrangement:



**Explanation:**

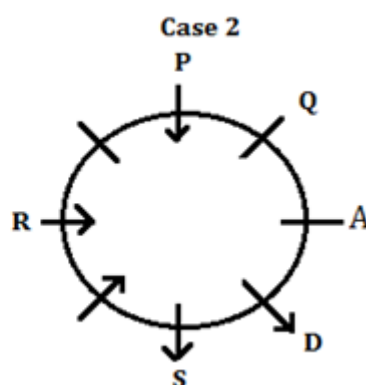
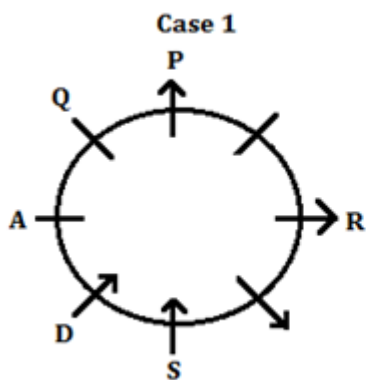
**Clues:** R sits 2<sup>nd</sup> to the right of S. Q sits immediate left of P who sits 2<sup>nd</sup> to the left of R. Q does not sit near to R.

**Inference:** Here we get two possibilities i.e., Case 1 and Case 2.



**Clues:** P sits 3<sup>rd</sup> to the left of D who faces opposite direction with respect to R. A does not sit near to R. The immediate neighbours of S are facing opposite direction to each other.

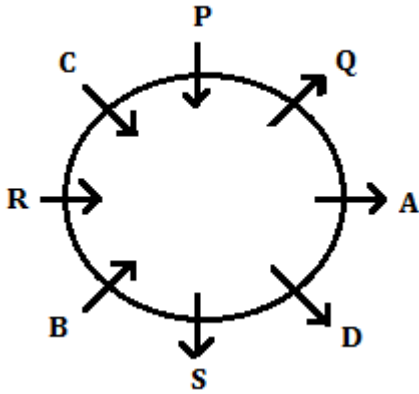
**Inference:** D is facing towards the table in Case 1 and facing away from the centre of the table in Case 2.





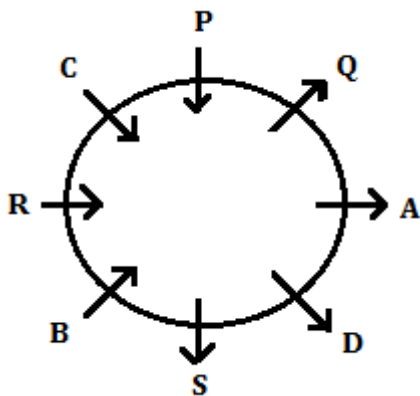
**Clues:** B sits 2<sup>nd</sup> to the right of C who faces inside. Both Q and A are facing opposite direction with respect to B.

**Inference:** From the above conditions Case 1 is ruled out. So, the final arrangement will be:



S33. Ans.(c)

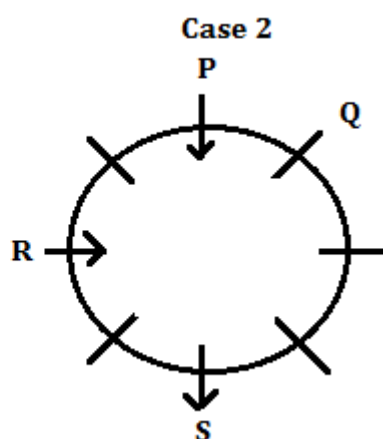
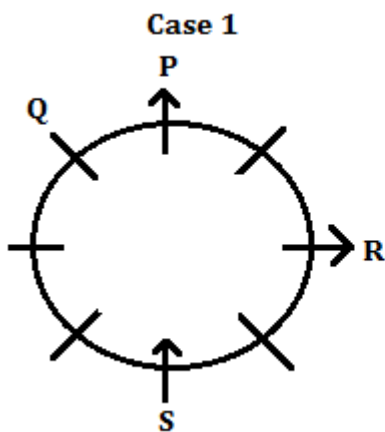
Sol. Final arrangement:



**Explanation:**

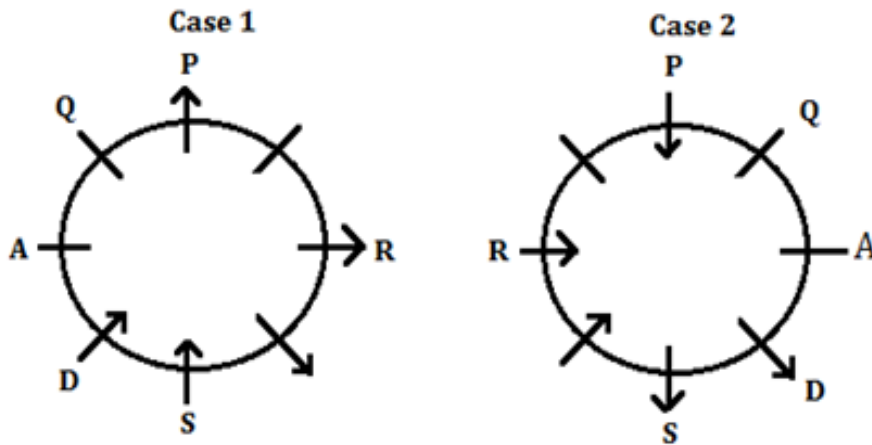
**Clues:** R sits 2<sup>nd</sup> to the right of S. Q sits immediate left of P who sits 2<sup>nd</sup> to the left of R. Q does not sit near to R.

**Inference:** Here we get two possibilities i.e., Case 1 and Case 2.



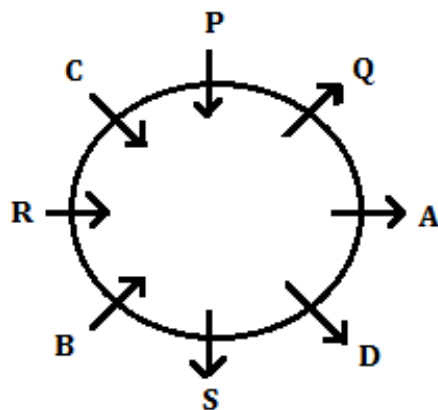
**Clues:** P sits 3<sup>rd</sup> to the left of D who faces opposite direction with respect to R. A does not sit near to R. The immediate neighbours of S are facing opposite direction to each other.

**Inference:** D is facing towards the table in Case 1 and facing away from the centre of the table in Case 2.



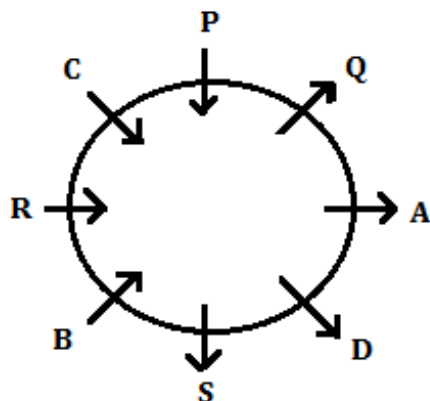
**Clues:** B sits 2<sup>nd</sup> to the right of C who faces inside. Both Q and A are facing opposite direction with respect to B.

**Inference:** From the above conditions Case 1 is ruled out. So, the final arrangement will be:



S34. Ans.(a)

Sol. Final arrangement:



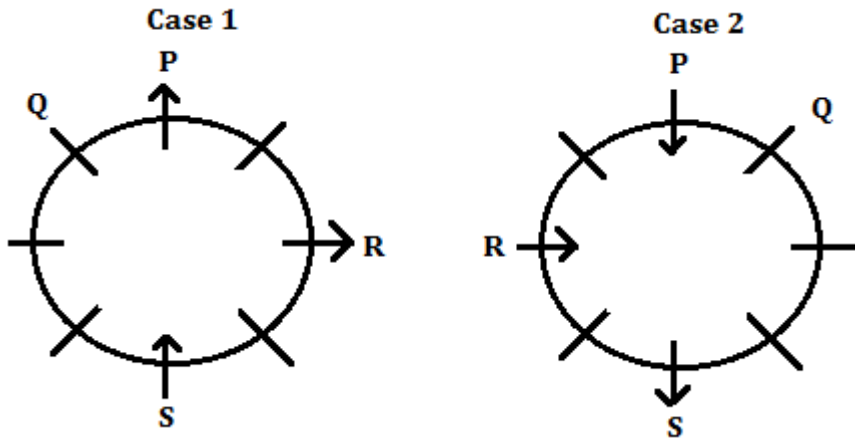
**Test Prime**

ALL EXAMS,  
ONE SUBSCRIPTION.

**Explanation:**

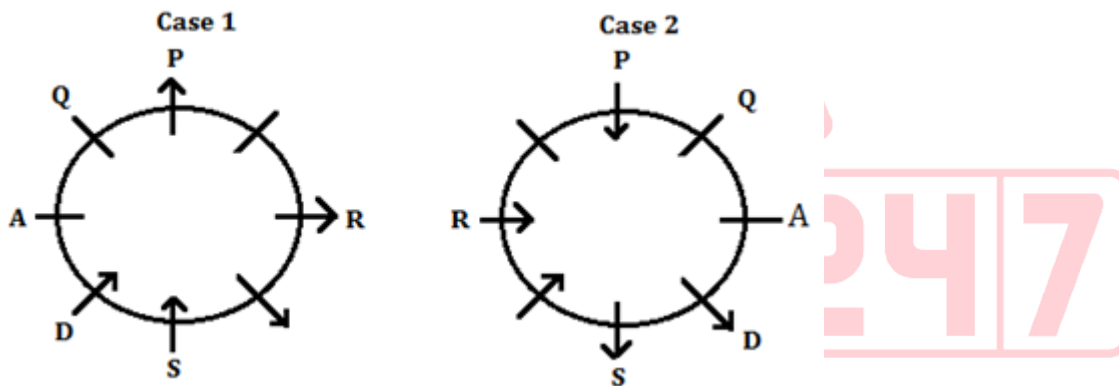
**Clues:** R sits 2<sup>nd</sup> to the right of S. Q sits immediate left of P who sits 2<sup>nd</sup> to the left of R. Q does not sit near to R.

**Inference:** Here we get two possibilities i.e., Case 1 and Case 2.



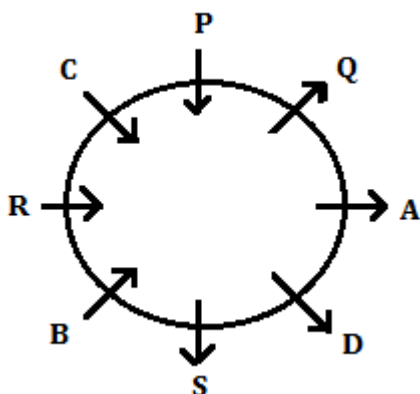
**Clues:** P sits 3<sup>rd</sup> to the left of D who faces opposite direction with respect to R. A does not sit near to R. The immediate neighbours of S are facing opposite direction to each other.

**Inference:** D is facing towards the table in Case 1 and facing away from the centre of the table in Case 2.



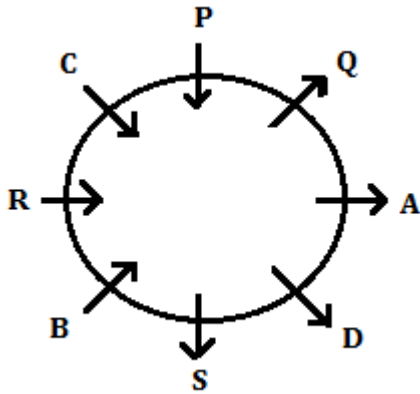
**Clues:** B sits 2<sup>nd</sup> to the right of C who faces inside. Both Q and A are facing opposite direction with respect to B.

**Inference:** From the above conditions Case 1 is ruled out. So, the final arrangement will be:



S35. Ans.(b)

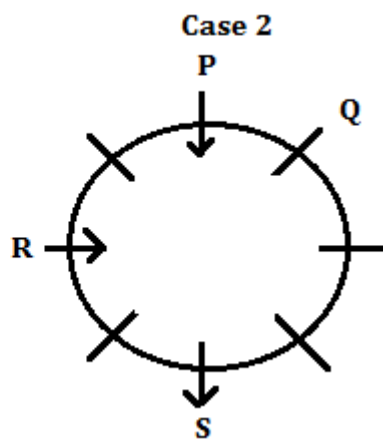
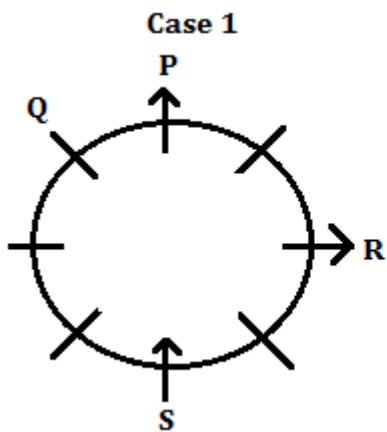
Sol. Final arrangement:



**Explanation:**

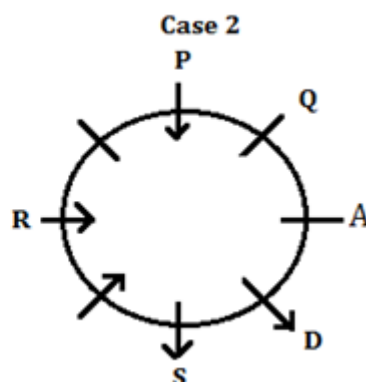
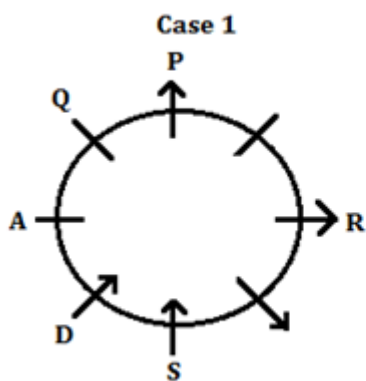
**Clues:** R sits 2<sup>nd</sup> to the right of S. Q sits immediate left of P who sits 2<sup>nd</sup> to the left of R. Q does not sit near to R.

**Inference:** Here we get two possibilities i.e., Case 1 and Case 2.



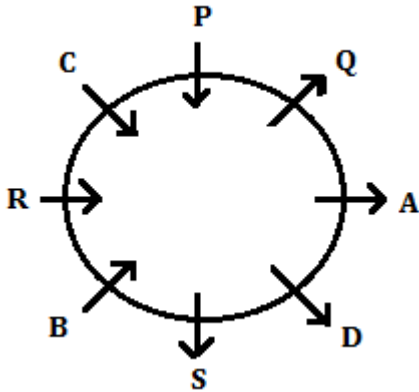
**Clues:** P sits 3<sup>rd</sup> to the left of D who faces opposite direction with respect to R. A does not sit near to R. The immediate neighbours of S are facing opposite direction to each other.

**Inference:** D is facing towards the table in Case 1 and facing away from the centre of the table in Case 2.



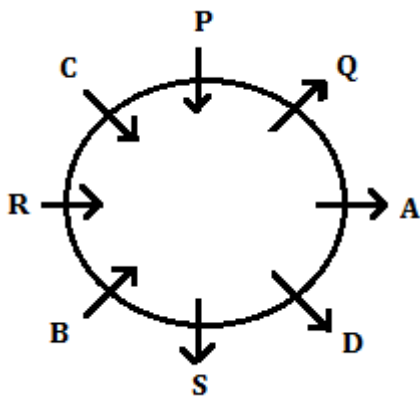
**Clues:** B sits 2<sup>nd</sup> to the right of C who faces inside. Both Q and A are facing opposite direction with respect to B.

**Inference:** From the above conditions Case 1 is ruled out. So, the final arrangement will be:



S36. Ans.(d)

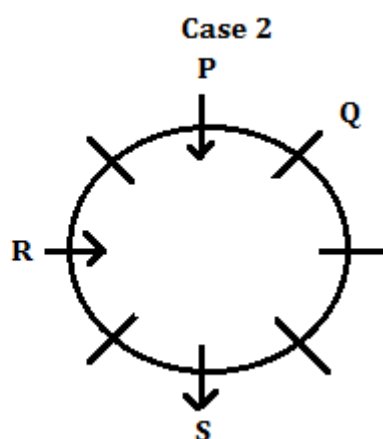
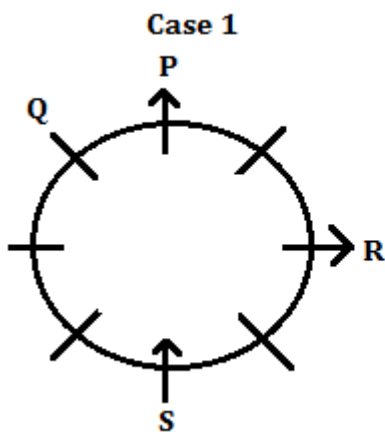
Sol. Final arrangement:



**Explanation:**

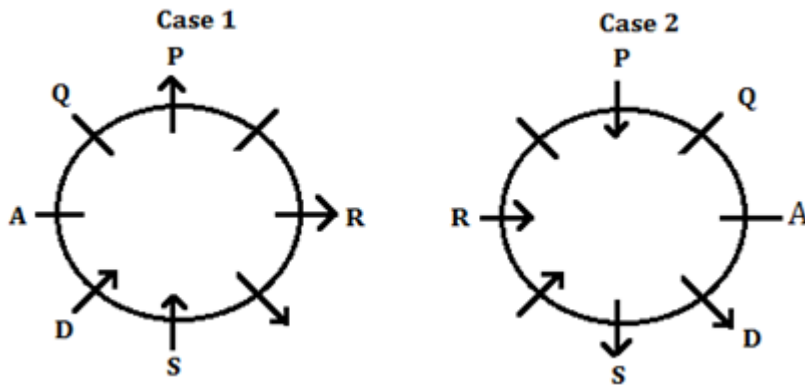
**Clues:** R sits 2<sup>nd</sup> to the right of S. Q sits immediate left of P who sits 2<sup>nd</sup> to the left of R. Q does not sit near to R.

**Inference:** Here we get two possibilities i.e., Case 1 and Case 2.



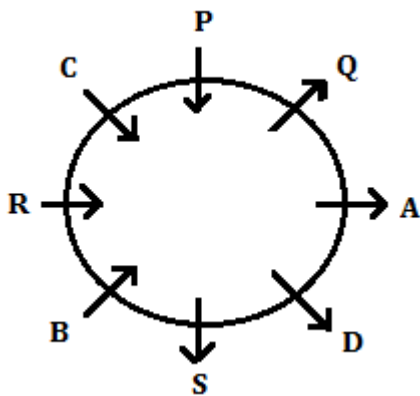
**Clues:** P sits 3<sup>rd</sup> to the left of D who faces opposite direction with respect to R. A does not sit near to R. The immediate neighbours of S are facing opposite direction to each other.

**Inference:** D is facing towards the table in Case 1 and facing away from the centre of the table in Case 2.



**Clues:** B sits 2<sup>nd</sup> to the right of C who faces inside. Both Q and A are facing opposite direction with respect to B.

**Inference:** From the above conditions Case 1 is ruled out. So, the final arrangement will be:



S37. Ans.(a)

Sol.

JUNGLEBOOK  
BEGJKN00U

S38. Ans.(b)

Sol.

$E > R > A > M > T > C > P$   
40                      17

S39. Ans.(d)

Sol.

$E > R > A > M > T > C > P$   
40                      17

**S40. Ans.(b)**

**Sol.**

$$E > R > A > M > T > C > P$$

$$40 \qquad 17$$

**S41. Ans.(a)**

**Sol.**

Let total employees in C = 25x

$$\text{So, total employees in A} = 25x \times \frac{108}{100} = 27x$$

$$\text{And total employees in B} = 27x \times \frac{2}{3} = 18x$$

So, ratio of total employees in A, B and C respectively = 27 : 18 : 25

$$\text{Total employees in A} = 700 \times \frac{27}{70} = 270$$

$$\text{Total employees in B} = 700 \times \frac{18}{70} = 180$$

$$\text{Total employees in C} = 700 \times \frac{25}{70} = 250$$

Let total male employees in A and B be 10n and 7n respectively

And let total female employees in B = 5m

$$\text{So, total female employees in A} = 5m \times \frac{160}{100} = 8m$$

ATQ –

$$10n + 8m = 270 \text{ ----- (i)}$$

$$\text{also, } 7n + 5m = 180 \text{ ----- (ii)}$$

From (i) and (ii) we get -----

$$n = 15, m = 15$$

$$\text{Total male employee in C} = 7 \times 15 \times \left(100 + \frac{300}{7}\right) \times \frac{1}{100} = 150$$

	A	B	C
<b>Male employee</b>	150	105	150
<b>Female employee</b>	120	75	100

$$\text{Required percentage} = \frac{150 - 100}{100} \times 100 = 50\%$$

**S42. Ans.(b)**

**Sol.**

Let total employees in C = 25x

$$\text{So, total employees in A} = 25x \times \frac{108}{100} = 27x$$

$$\text{And total employees in B} = 27x \times \frac{2}{3} = 18x$$

So, ratio of total employees in A, B and C respectively = 27 : 18 : 25

Total employees in A =  $700 \times \frac{27}{70} = 270$

Total employees in B =  $700 \times \frac{18}{70} = 180$

Total employees in C =  $700 \times \frac{25}{70} = 250$

Let total male employees in A and B be  $10n$  and  $7n$  respectively

And let total female employees in B =  $5m$

So, total female employees in A =  $5m \times \frac{160}{100} = 8m$

ATQ –

$10n + 8m = 270$  ----- (i)

also,  $7n + 5m = 180$ ----- (ii)

From (i) and (ii) we get -----

$n = 15, m = 15$

Total male employee in C =  $7 \times 15 \times \left(100 + \frac{300}{7}\right) \times \frac{1}{100} = 150$

	A	B	C
<b>Male employee</b>	150	105	150
<b>Female employee</b>	120	75	100

Required average =  $\frac{120+100}{2} = 110$

**S43. Ans.(a)**

**Sol.**

Let total employees in C =  $25x$

So, total employees in A =  $25x \times \frac{108}{100} = 27x$

And total employees in B =  $27x \times \frac{2}{3} = 18x$

So, ratio of total employees in A, B and C respectively =  $27 : 18 : 25$

Total employees in A =  $700 \times \frac{27}{70} = 270$

Total employees in B =  $700 \times \frac{18}{70} = 180$

Total employees in C =  $700 \times \frac{25}{70} = 250$

Let total male employees in A and B be  $10n$  and  $7n$  respectively

And let total female employees in B =  $5m$

So, total female employees in A =  $5m \times \frac{160}{100} = 8m$

ATQ –

$10n + 8m = 270$  ----- (i)

also,  $7n + 5m = 180$ ----- (ii)

From (i) and (ii) we get -----

$n = 15, m = 15$

Total male employee in C =  $7 \times 15 \times \left(100 + \frac{300}{7}\right) \times \frac{1}{100} = 150$



	A	B	C
<b>Male employee</b>	150	105	150
<b>Female employee</b>	120	75	100

Required sum =  $(150 + 105 + 150) = 405$

**S44. Ans.(e)**

**Sol.**

Let total employees in C =  $25x$

So, total employees in A =  $25x \times \frac{108}{100} = 27x$

And total employees in B =  $27x \times \frac{2}{3} = 18x$

So, ratio of total employees in A, B and C respectively =  $27 : 18 : 25$

Total employees in A =  $700 \times \frac{27}{70} = 270$

Total employees in B =  $700 \times \frac{18}{70} = 180$

Total employees in C =  $700 \times \frac{25}{70} = 250$

Let total male employees in A and B be  $10n$  and  $7n$  respectively

And let total female employees in B =  $5m$

So, total female employees in A =  $5m \times \frac{160}{100} = 8m$

ATQ –

$$10n + 8m = 270 \text{ ----- (i)}$$

$$\text{also, } 7n + 5m = 180 \text{ ----- (ii)}$$

From (i) and (ii) we get -----

$$n = 15, m = 15$$

$$\text{Total male employee in C} = 7 \times 15 \times \left(100 + \frac{300}{7}\right) \times \frac{1}{100} = 150$$



	A	B	C
<b>Male employee</b>	150	105	150
<b>Female employee</b>	120	75	100

Required ratio =  $\frac{105}{120} = 7 : 8$

**S45. Ans.(c)**

**Sol.**

Let total employees in C =  $25x$

So, total employees in A =  $25x \times \frac{108}{100} = 27x$

And total employees in B =  $27x \times \frac{2}{3} = 18x$

So, ratio of total employees in A, B and C respectively =  $27 : 18 : 25$

Total employees in A =  $700 \times \frac{27}{70} = 270$

Total employees in B =  $700 \times \frac{18}{70} = 180$

Total employees in C =  $700 \times \frac{25}{70} = 250$

Let total male employees in A and B be  $10n$  and  $7n$  respectively

And let total female employees in B =  $5m$

So, total female employees in A =  $5m \times \frac{160}{100} = 8m$

ATQ –

$10n + 8m = 270$  ----- (i)

also,  $7n + 5m = 180$ ----- (ii)

From (i) and (ii) we get -----

$n = 15, m = 15$

Total male employee in C =  $7 \times 15 \times \left(100 + \frac{300}{7}\right) \times \frac{1}{100} = 150$

	A	B	C
Male employee	150	105	150
Female employee	120	75	100

Required difference =  $(150 + 105 + 150) - (120 + 75 + 100) = 110$

**S46. Ans.(e)**

**Sol.**

$25\%$  of  $1460 - ?\%$  of  $1120 \approx 29$

$\frac{25}{100} \times 1460 - \frac{?}{100} \times 1120 \approx 29$

$\frac{112}{10} \times ? \approx 365 - 29$

$? \approx \frac{3360}{112}$

$? \approx 30$

**S47. Ans.(a)**

**Sol.**

$24 + 14 - 2 \approx ?^2$

$?^2 \approx 36$

$? \approx 6$

**S48. Ans.(d)**

**Sol.**

$11\%$  of  $11\%$  of  $11000 \approx ?$

$\frac{11}{100} \times \frac{11}{100} \times 11000 \approx ?$

$? \approx \frac{1331}{10}$

$? \approx 133$

**S49. Ans.(a)**

**Sol.**

$$21 \times \frac{1}{12} \times 16 \times \frac{1}{7} \approx ?$$

$$? \approx 4$$

**S50. Ans.(c)**

**Sol.**

$$120 \div 15 \times 4 \approx ?$$

$$? \approx 8 \times 4$$

$$? \approx 32$$

**S51. Ans.(b)**

**Sol.**

Wrong number = 312

Pattern of series -

124,	180,	225,	261,	290,	314,	335
+56	+45	+36	+29	+24	+21	
-11	-9	-7	-5	-3		

So, 314 should be come in the place of 312.

**S52. Ans.(d)**

**Sol.**

Wrong number = 187.5

Pattern of series -

$$91 + 144 = 235$$

$$235 - 72 = 163$$

$$163 + 36 = 199$$

$$199 - 18 = 181$$

$$181 + 9 = 190$$

$$190 - 4.5 = 185.5$$

So, 185.5 should be come in the place of 187.5

**S53. Ans.(d)**

**Sol.**

Pattern of series -

380,	385,	393,	407,	433,	483,	581
+5	+8	+14	+26	+50	+98	
+3	+6	+12	+24	+48		

So, 483 should be come in the place of 486

**S54. Ans.(a)**

**Sol.**

Wrong number = 32

Pattern of series -

$$128 \times 0.5 = 64$$

$$64 \times 1.5 = 96$$

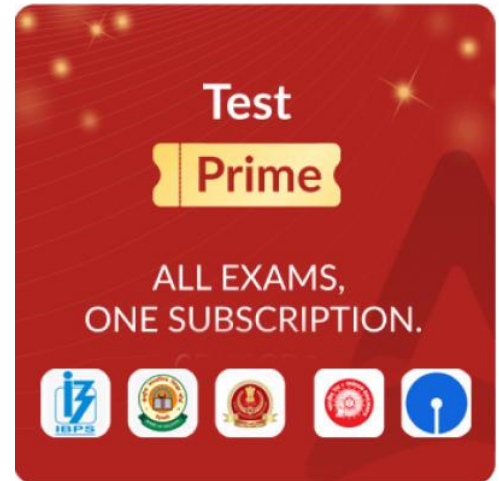
$$96 \times 2.5 = 240$$

$$240 \times 3.5 = 840$$

$$840 \times 4.5 = 3780$$


$$3780 \times 5.5 = 20790$$

So, 64 should be come in the place of 32.



**Test Prime**

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ONE SUBSCRIPTION.



**S55. Ans.(c)**

**Sol.**

Wrong number = 581

Pattern of series -

$$665 - (6^2 - 1) = 630$$

$$630 - (5^2 - 1) = 606$$

$$606 - (4^2 - 1) = 591$$

$$591 - (3^2 - 1) = 583$$

$$583 - (2^2 - 1) = 580$$

$$580 - (1^2 - 1) = 580$$

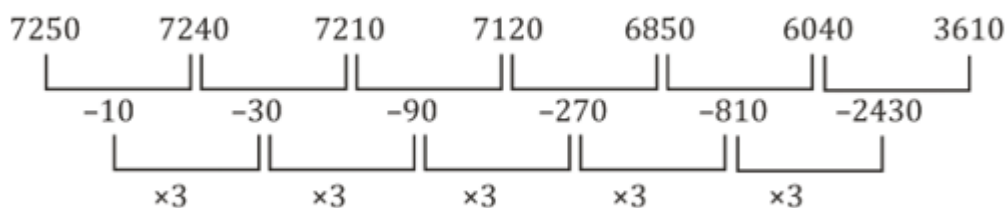
So, 583 should be in the place of 581

**S56. Ans.(e)**

**Sol.**

Wrong number = 7260

Pattern of series -



So, there should be 7250 in place of 7260.

**S57. Ans.(c)**

**Sol. ATQ**

$$P : Q = 2 : 3$$

$$P : R = 5 : 7$$

$$\Rightarrow Q : P : R = 15 : 10 : 14$$

Let profit earned by Q be 15x, by P be 10x and by R be 14x.

ATQ,

$$4x=76$$

$$x=19$$

Profit earned by Q =  $15x = 15 \times 19 = \text{Rs } 285$

**S58. Ans.(d)**

**Sol.**

ATQ,

$$\text{Rita : Kapil} = 3 : 4$$

$$\text{And, Rita : Manish} = 3 : 5$$

$$\text{And, Manish : Rita : Kapil} = 5 : 3 : 4$$

Let Rita's present age be  $3x$ , Kapil's present age be  $4x$  and Manish present age be  $5x$ .

After 10 years, ratio of their ages,

$$\Rightarrow 5x+10 : 3x+10 : 4x+10 = 15 : 11 : 13.$$

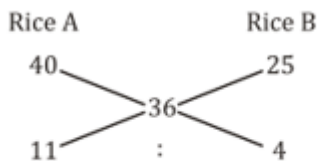
$$\Rightarrow x = 4$$

So, Rita's present age =  $3x = 12$  years.

5 years ago, Rita's age was =  $(12 - 5) = 7$  years.

**S59. Ans.(d)**

**Sol.**



Quantity (Rice A) : Quantity (Rice B)

$$\text{Required ratio} = \frac{11}{15}$$

**S60. Ans.(d)**

**Sol.**

ATQ,

$$\text{Amount invested in scheme B} = P \left[ 1 + \frac{20}{100} \right]^2 = \frac{36P}{25}$$

Also,

$$\text{Simple interest gets from scheme B} = \frac{36P \times 25 \times 4}{25 \times 100} = \frac{36P}{25}$$

Now,

$$\frac{36P}{25} - P = 1650$$

$$\frac{11P}{25} = 1650$$

$$P \Rightarrow 150 \times 25$$

$$P = \text{Rs } 3750$$

S61. Ans.(d)

Sol.

Let the length of train B be  $100x$  meters.

So, length of train A =  $100x \times \frac{5}{4} = 125x$  meters

ATQ -

$$\frac{125x}{12} = 90 \times \frac{5}{18}$$

$$x = 2.4$$

So, length of train B = 240 meters

And, length of train A = 300 meters

Let speed of train B =  $L$  m/sec

$$\text{Now, the speed of train B} = \frac{240+300}{25-L} = 36$$

$$= 10 \text{ m/sec}$$

$$\text{Required time} = \frac{240+400}{10} = 64 \text{ seconds}$$

S62. Ans.(c)

Sol.

Let speed of current be  $x$  km/hr.

ATQ,

$$(240-x) \times \frac{60}{100} = x$$

$$144 - 0.6x = x$$

$$1.6x = 144$$

$$x = 90$$

$$\text{speed in upstream} = 240 - 90 = 150 \text{ km/hr}$$

S63. Ans.(d)

Sol.

Let the cost price of article be Rs  $100x$

$$\text{Mark up price of article} = 100x \times \frac{140}{100} = \text{Rs } 140x$$

$$\text{Selling price of article} = 140x \times \frac{75}{100} = \text{Rs } 105x$$

ATQ,

$$\therefore (105x - 100x) = 420$$

$$x = 84$$

$$\therefore \text{cost price} = \text{Rs } 8400$$

$$\text{Mark up price} = 84 \times 140 = \text{Rs } 11760$$

$$\therefore \text{selling price after 20\% discount}$$

$$= 11760 \times \frac{80}{100} = 9408$$

$$\therefore \text{Profit after 20\% discount} = 9408 - 8400$$

$$= \text{Rs } 1008$$

S64. Ans.(b)

Sol.

$$\text{Time taken by A to complete the work alone} = 9 \times \frac{100}{60} = 15 \text{ days}$$

$$\text{Time taken by A and B together to complete the work} = \frac{100}{20} \times \frac{7}{4} = \frac{35}{4} \text{ days}$$

Let total work = 105 units

$$\text{So, efficiency of A} = \frac{105}{15} = 7 \text{ units/day}$$

$$\text{And efficiency of A+B} = \frac{105}{\frac{35}{4}} = 12 \text{ units/day}$$

$$\therefore \text{efficiency of B} = 12 - 7 = 5 \text{ units/day}$$

$$\text{Now, time taken by B alone to complete the work alone} = \frac{105}{5} = 21 \text{ days}$$

S65. Ans.(e)

Sol.

$$\begin{aligned} \text{Required amount} &= (12000 + 9000) \times \frac{100}{70} \\ &= 21000 \times \frac{100}{70} = \text{Rs } 30000 \end{aligned}$$

S66. Ans.(a)

Sol.

$$\begin{aligned} \text{Total number of females visited P and Q} \\ &= 2400 \times \frac{(100-40)}{100} + 2000 \times \frac{(100-45)}{100} = 2540 \end{aligned}$$

$$\text{Total number of children visited R and S} = 4500 \times \frac{15}{100} + 6000 \times \frac{20}{100} = 1875$$

$$\text{Required ratio} = 2540 : 1875 = 508 : 375$$

S67. Ans.(c)

Sol.

$$\begin{aligned} \text{Req. average} &= \frac{6000 \times \frac{45}{100} + 2400 \times \frac{30}{100}}{2} \\ &= \frac{2700 + 720}{2} = 1710 \end{aligned}$$

S68. Ans.(e)

Sol.

$$\text{Total number of females visit S} = 6000 \times \frac{(100-65)}{100} = 2100$$

$$\text{Total number male visit Q} = 2000 \times \frac{40}{100} = 800$$

$$\text{Required \%} = \frac{2100}{800} \times 100 = 262.5\%$$

**S69. Ans.(c)**

**Sol.**

Total number of children visited P and S

$$= 2400 \times \frac{10}{100} + 6000 \times \frac{20}{100}$$

$$= 240 + 1200 = 1440$$

Total number female visited Q and R

$$= 2000 \times \frac{(100-45)}{100} + 4500 \times \frac{(100-65)}{100}$$

$$= 1100 + 1575 = 2675$$

$$\text{Required difference} = 2675 - 1440 = 1235$$

**S70. Ans.(b)**

**Sol.**

Req. sum

$$= 4500 \times \frac{(100 - 65)}{100} + 2000 \times \frac{(100 - 45)}{100} + 6000 \times \frac{(100 - 65)}{100}$$

$$= 1575 + 1100 + 2100 = 4775$$

**S71. Ans.(d)**

**Sol.**

In the mixture

$$\text{Milk : water} = 150 : (30+y)$$

According to question

$$\text{Quantity of Milk} = 150 - \frac{150}{y+180} \times 35 + 35 = 160$$

$$y = 30\text{ltr}$$

**S72. Ans.(b)**

**Sol.**

Let speed of fan is  $100x$  revolutions per min.

So,

$$\text{Overall change of speed with successive rates} = 100x \times \frac{90}{100} \times \frac{85}{100} = 76.5x.$$

Overall change of speed with new successive rates

$$100x \times \frac{80}{100} \times \left(1 - \frac{Z}{100}\right) = 76.5x$$

$$Z = 4.375\%$$



**S73. Ans.(e)**

**Sol.**

Let marked price and selling price of the article be  $50x$  and  $41x$  respectively and profit earned is Rs.  $y$ .

$$\text{Discount} = y + 4$$

ATQ,

$$y + 4 = 50x - 41x$$

$$9x = y + 4$$

$$y = 9x - 4$$

$$\text{CP} = 41x - (9x - 4)$$

$$100 = 32x + 4$$

$$x = 3$$

$$\text{Discount offered} = 9 \times 3 = 27$$

**S74. Ans.(e)**

**Sol.**

$\because$   $a, b, c$  and  $d$  are four consecutive numbers and  $a + c = 124$

$$\therefore a + c = 124 = 61 + 63$$

$$\therefore b = 62 \text{ and } d = 64$$

$$\therefore b \times d = 62 \times 64 = 3968$$

**S75. Ans.(a)**

**Sol.**

Side of square

$$= \frac{\text{Diagonal}}{\sqrt{2}} = \frac{9\sqrt{2}}{\sqrt{2}}$$

$$= 9 \text{ meters}$$

$$\therefore \text{height of triangle} = 4 \times 9 = 36 \text{ meter}$$

Again, side of second square

$$= \sqrt{784} = 28 \text{ metre}$$

$$\therefore \text{base of triangle} = 28 \text{ meter}$$

$\therefore$  Area of triangle

$$= \frac{1}{2} \times \text{Base} \times \text{height}$$

$$= \frac{1}{2} \times 28 \times 36 = 504 \text{ sq. metre.}$$

**S76. Ans.(d)**

**Sol.**

Total number of Laptops & Desktops sold by shop A =  $80 + 120 = 200$

Total Desktops sold by B & E together =  $150 + 100 = 250$

Required percentage =  $\frac{250-200}{250} \times 100 = 20\%$

**S77. Ans.(b)**

**Sol.**

$$\text{Total number of 4GB (Laptops + Desktops) sold by shop C} = \left(140 \times \frac{3}{5}\right) + \left(160 \times \frac{5}{8}\right)$$

$$= 84 + 100 = 184$$

$$\text{Total number of Laptops sold by shop B} = 120$$

$$\text{Required ratio} = \frac{184}{120} = 23:15$$

**S78. Ans.(a)**

**Sol.**

$$\text{Total number of Laptops sold by shop C \& E} = 140 + 70 = 210$$

$$\text{Total number of Laptops \& Desktops sold by shop D} = 40 + 50 = 90$$

$$\text{Required percentage} = \frac{210}{90} \times 100 = 233\frac{1}{3}\%$$

**S79. Ans.(d)**

**Sol.**

$$\text{Total Laptops sold by shop X} = 90 + 70 = 160$$

$$\text{Total 8GB Laptops sold by shop X} = 160 \times \frac{7}{10} = 112$$

$$\text{Total 8GB Laptops sold by shop B} = 120 \times \frac{9}{20} = 54$$

$$\text{So, required sum} = 112 + 54 = 166$$

**S80. Ans.(c)**

**Sol.**

$$\text{The average number of Desktops sold by shops B, C \& D} = \frac{1}{3} \times (150 + 160 + 50) = 120$$

$$\text{Total number of Laptops sold by shop A \& E together} = 80 + 70 = 150$$

$$\text{Required difference} = 150 - 120 = 30$$

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