

## All India Mock of IBPS RRB PO Prelims 2022 Solution PDF 25th-26th June

### S1. Ans.(c)

**Sol.** From the given statements, 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.

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

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. We, get our final solution as,

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

### S2. Ans.(a)

**Sol.** From the given statements, 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.

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

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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. We, get our final solution as,

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

### S3. Ans.(d)

**Sol.** From the given statements, 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.

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

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. We, get our final solution as,

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

### S4. Ans.(e)

**Sol.** From the given statements, 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.

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

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. We, get our final solution as,

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

**S5. Ans.(b)**

**Sol.** From the given statements, 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.

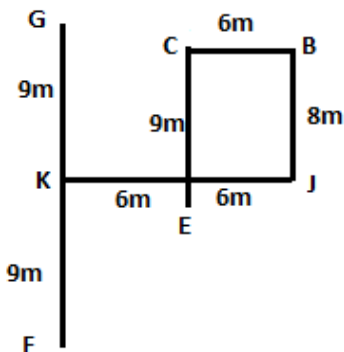
DAY	PERSON	CITY
Monday	P	
Tuesday		
Wednesday	U	D
Thursday		
Friday	T	E
Saturday		
Sunday		

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. We, get our final solution as,


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

**S6. Ans.(b)**

**Sol.**



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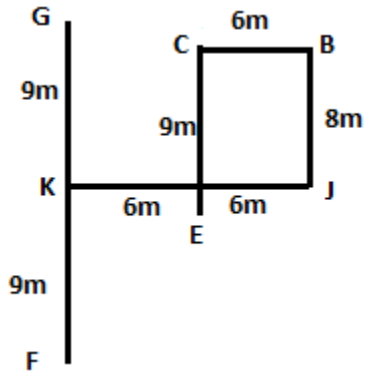


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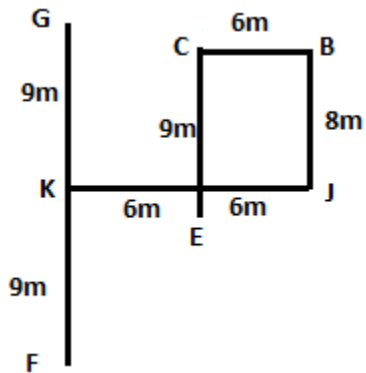
S7. Ans.(d)

Sol.



S8. Ans.(c)

Sol.



S9. Ans.(b)

**Sol.** From the given conditions, only two persons live below the floor on which G lives. Only one person lives between G and A. Hence A lives either on 1<sup>st</sup> floor or 5<sup>th</sup> floor. But it is given that, A does not live on the lowermost floor, So A lives on 5<sup>th</sup> floor. H lives on an odd-numbered floor but not on floor no. 7. Hence H lives on 1<sup>st</sup> floor.

Floor	Person
8	
7	
6	
5	A
4	
3	G
2	
1	H

Now from the rest conditions, only two persons live between H and B. Hence B lives on 4<sup>th</sup> floor. D lives immediately below C. Neither D nor E lives on floor no. 6. Hence D lives on 7<sup>th</sup> floor and C lives on 8<sup>th</sup> floor. E lives on 2<sup>nd</sup> floor and rest F lives on 6<sup>th</sup> floor. So, the final arrangement is-

Floor	Person
8	C
7	D
6	F
5	A
4	B
3	G
2	E
1	H

**S10. Ans.(e)**

**Sol.** From the given conditions, only two persons live below the floor on which G lives. Only one person lives between G and A. Hence A lives either on 1<sup>st</sup> floor or 5<sup>th</sup> floor. But it is given that, A does not live on the lowermost floor, So A lives on 5<sup>th</sup> floor. H lives on an odd-numbered floor but not on floor no. 7. Hence H lives on 1<sup>st</sup> floor.

Floor	Person
8	
7	
6	
5	A
4	
3	G
2	
1	H

Now from the rest conditions, only two persons live between H and B. Hence B lives on 4<sup>th</sup> floor. D lives immediately below C. Neither D nor E lives on floor no. 6. Hence D lives on 7<sup>th</sup> floor and C lives on 8<sup>th</sup> floor. E lives on 2<sup>nd</sup> floor and rest F lives on 6<sup>th</sup> floor. So, the final arrangement is-

Floor	Person
8	C
7	D
6	F
5	A
4	B
3	G
2	E
1	H

**S11. Ans.(d)**

**Sol.** From the given conditions, only two persons live below the floor on which G lives. Only one person lives between G and A. Hence A lives either on 1<sup>st</sup> floor or 5<sup>th</sup> floor. But it is given that, A does not live on the lowermost floor, So A lives on 5<sup>th</sup> floor. H lives on an odd-numbered floor but not on floor no. 7. Hence H lives on 1<sup>st</sup> floor.

Floor	Person
8	
7	
6	
5	A
4	
3	G
2	
1	H

Now from the rest conditions, only two persons live between H and B. Hence B lives on 4<sup>th</sup> floor. D lives immediately below C. Neither D nor E lives on floor no. 6. Hence D lives on 7<sup>th</sup> floor and C lives on 8<sup>th</sup> floor. E lives on 2<sup>nd</sup> floor and rest F lives on 6<sup>th</sup> floor. So, the final arrangement is-

Floor	Person
8	C
7	D
6	F
5	A
4	B
3	G
2	E
1	H

### S12. Ans.(c)

**Sol.** From the given conditions, only two persons live below the floor on which G lives. Only one person lives between G and A. Hence A lives either on 1<sup>st</sup> floor or 5<sup>th</sup> floor. But it is given that, A does not live on the lowermost floor, So A lives on 5<sup>th</sup> floor. H lives on an odd-numbered floor but not on floor no. 7. Hence H lives on 1<sup>st</sup> floor.

Floor	Person
8	
7	
6	
5	A
4	
3	G
2	
1	H

Now from the rest conditions, only two persons live between H and B. Hence B lives on 4<sup>th</sup> floor. D lives immediately below C. Neither D nor E lives on floor no. 6. Hence D lives on 7<sup>th</sup> floor and C lives on 8<sup>th</sup> floor. E lives on 2<sup>nd</sup> floor and rest F lives on 6<sup>th</sup> floor. So, the final arrangement is-

Floor	Person
8	C
7	D
6	F
5	A
4	B
3	G
2	E
1	H



**S13. Ans.(d)**

**Sol.** From the given conditions, only two persons live below the floor on which G lives. Only one person lives between G and A. Hence A lives either on 1<sup>st</sup> floor or 5<sup>th</sup> floor. But it is given that, A does not live on the lowermost floor, So A lives on 5<sup>th</sup> floor. H lives on an odd-numbered floor but not on floor no. 7. Hence H lives on 1<sup>st</sup> floor.

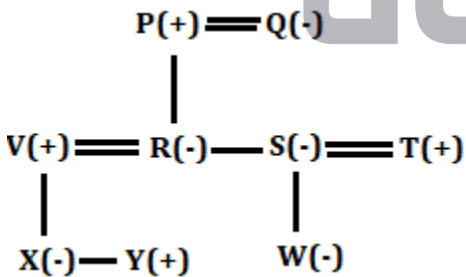
Floor	Person
8	
7	
6	
5	A
4	
3	G
2	
1	H

Now from the rest conditions, only two persons live between H and B. Hence B lives on 4<sup>th</sup> floor. D lives immediately below C. Neither D nor E lives on floor no. 6. Hence D lives on 7<sup>th</sup> floor and C lives on 8<sup>th</sup> floor. E lives on 2<sup>nd</sup> floor and rest F lives on 6<sup>th</sup> floor. So, the final arrangement is-

Floor	Person
8	C
7	D
6	F
5	A
4	B
3	G
2	E
1	H

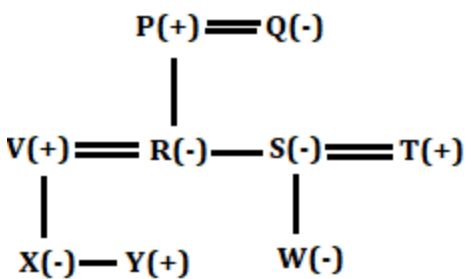
**S14. Ans.(b)**

**Sol.**



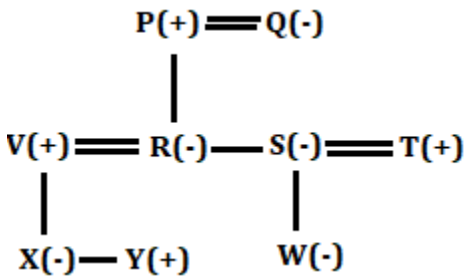
**S15. Ans.(b)**

**Sol.**



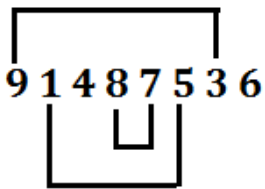
S16. Ans.(d)

Sol.



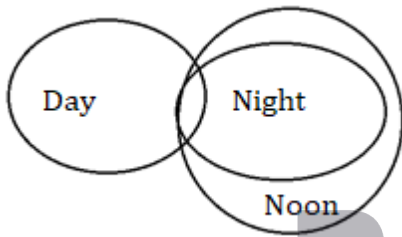
S17. Ans.(a)

Sol.



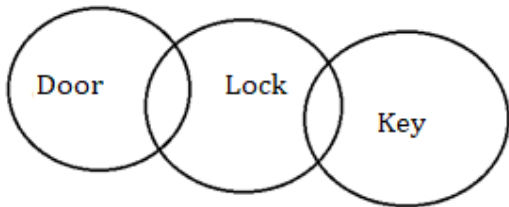
S18. Ans.(a)

Sol.



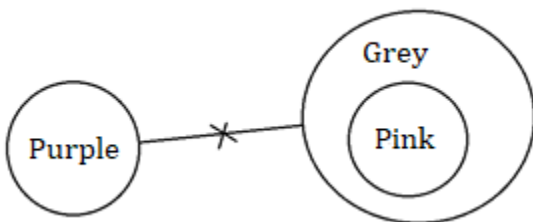
S19. Ans.(b)

Sol.



S20. Ans.(d)

Sol.



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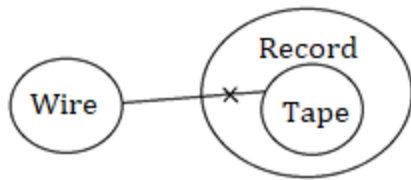
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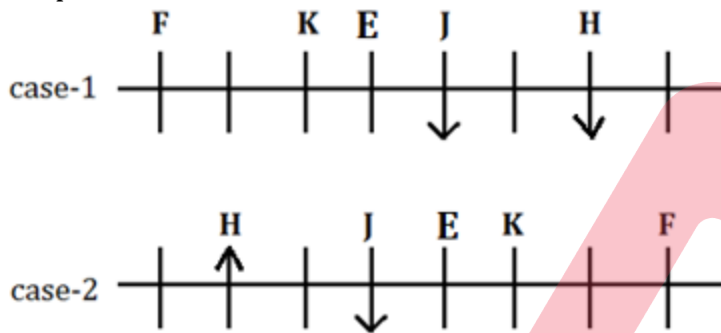
S21. Ans.(d)

Sol.

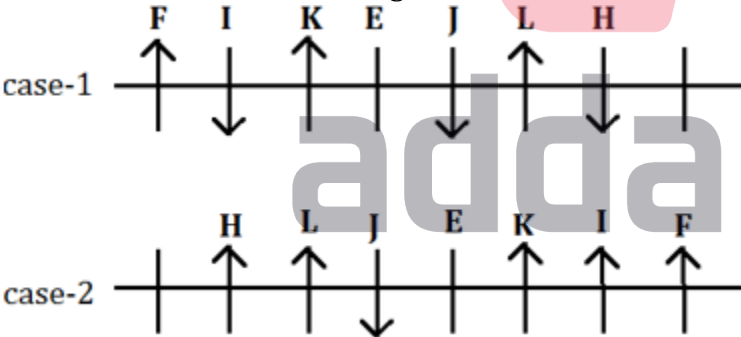


S22. Ans.(d)

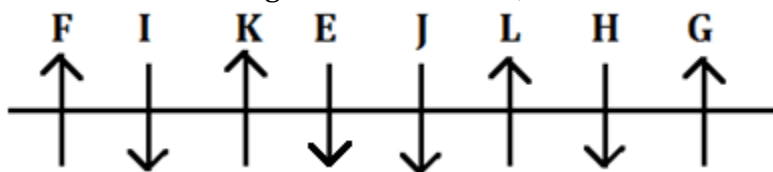
Sol. From the given statements, three persons sit between K and H, both of them face opposite direction. There are as many persons sitting between F and K as between K and J, who faces South. F sits at one of the extreme ends. H is not an immediate neighbor of J or F. E sits third to the right of H. So, there will be two possibilities-



The one who sits immediate right of H faces north. I and G are not immediate neighbors of J. E sits second to the left of I. Immediate neighbors of I faces same direction as L.

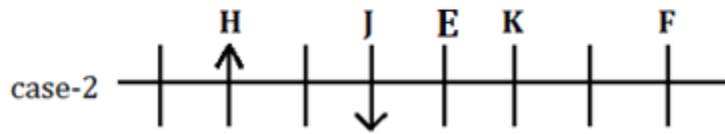
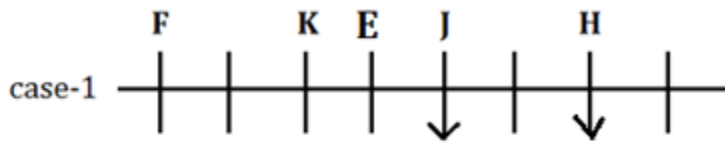


G does not sit to the left of K. By this Case 2 will be eliminated. E and G faces opposite directions. J does not sit immediate right of E. Therefore, E faces south. Final arrangement will be----

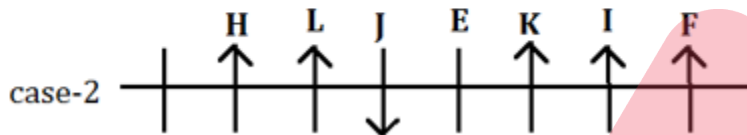
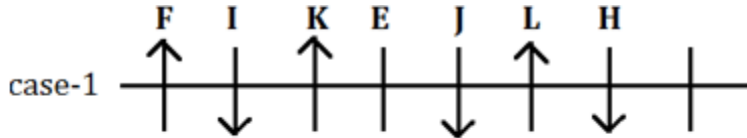


S23. Ans.(c)

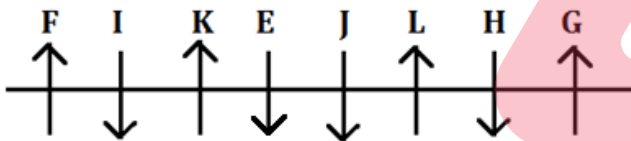
Sol. From the given statements, three persons sit between K and H, both of them face opposite direction. There are as many persons sitting between F and K as between K and J, who faces South. F sits at one of the extreme ends. H is not an immediate neighbor of J or F. E sits third to the right of H. So, there will be two possibilities-



The one who sits immediate right of H faces north. I and G are not immediate neighbors of J. E sits second to the left of I. Immediate neighbors of I faces same direction as L.

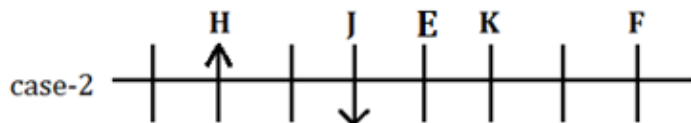
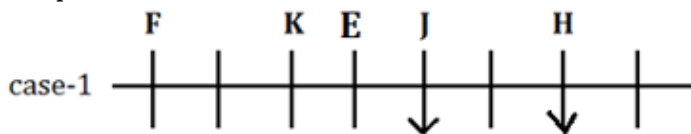


G does not sit to the left of K. By this Case 2 will be eliminated. E and G faces opposite directions. J does not sit immediate right of E. Therefore, E faces south. Final arrangement will be----

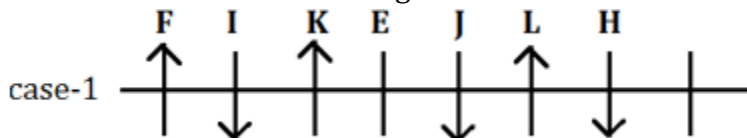


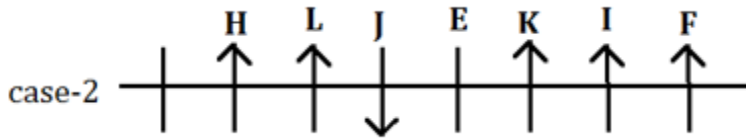
**S24. Ans.(b)**

**Sol.** From the given statements, three persons sit between K and H, both of them face opposite direction. There are as many persons sitting between F and K as between K and J, who faces South. F sits at one of the extreme ends. H is not an immediate neighbor of J or F. E sits third to the right of H. So, there will be two possibilities-

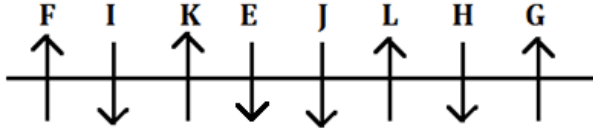


The one who sits immediate right of H faces north. I and G are not immediate neighbors of J. E sits second to the left of I. Immediate neighbors of I faces same direction as L.



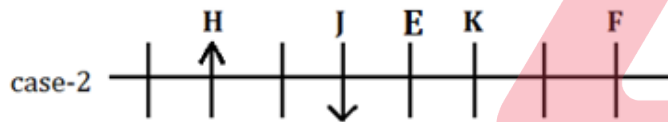
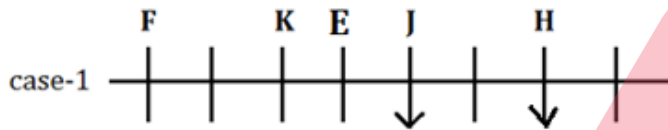


G does not sit to the left of K. By this Case 2 will be eliminated. E and G faces opposite directions. J does not sit immediate right of E. Therefore, E faces south. Final arrangement will be----

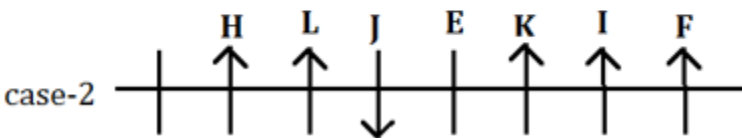
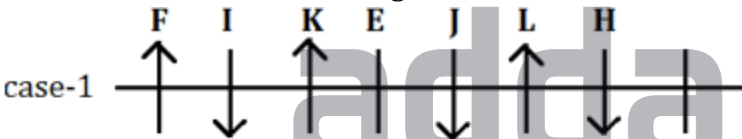


**S25. Ans.(b)**

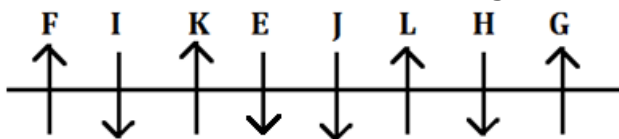
**Sol.** From the given statements, three persons sit between K and H, both of them face opposite direction. There are as many persons sitting between F and K as between K and J, who faces South. F sits at one of the extreme ends. H is not an immediate neighbor of J or F. E sits third to the right of H. So, there will be two possibilities-



The one who sits immediate right of H faces north. I and G are not immediate neighbors of J. E sits second to the left of I. Immediate neighbors of I faces same direction as L.



G does not sit to the left of K. By this Case 2 will be eliminated. E and G faces opposite directions. J does not sit immediate right of E. Therefore, E faces south. Final arrangement will be----



**S26. Ans.(c)**

**Sol.** 83526794  
91337575

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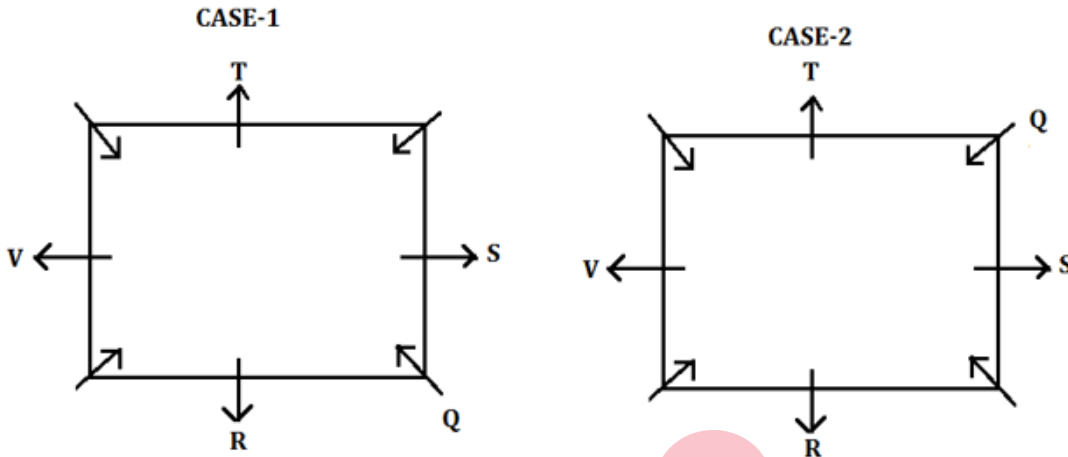
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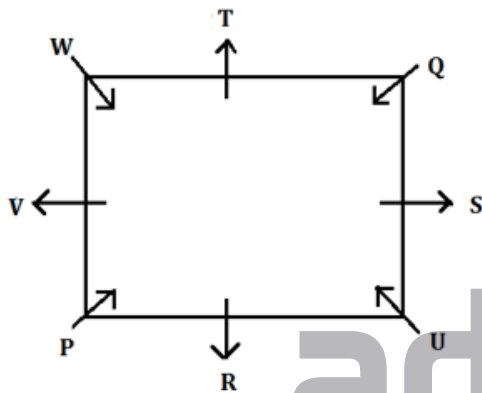
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**S27. Ans.(d)**

**Sol.** From the given statements, V sits second to the right of R. R sits in the middle of one of the sides of table. Only two people sit between V and Q. S is one of the immediate neighbours of Q. T sits second to the left of S. So, there will be two possibilities-

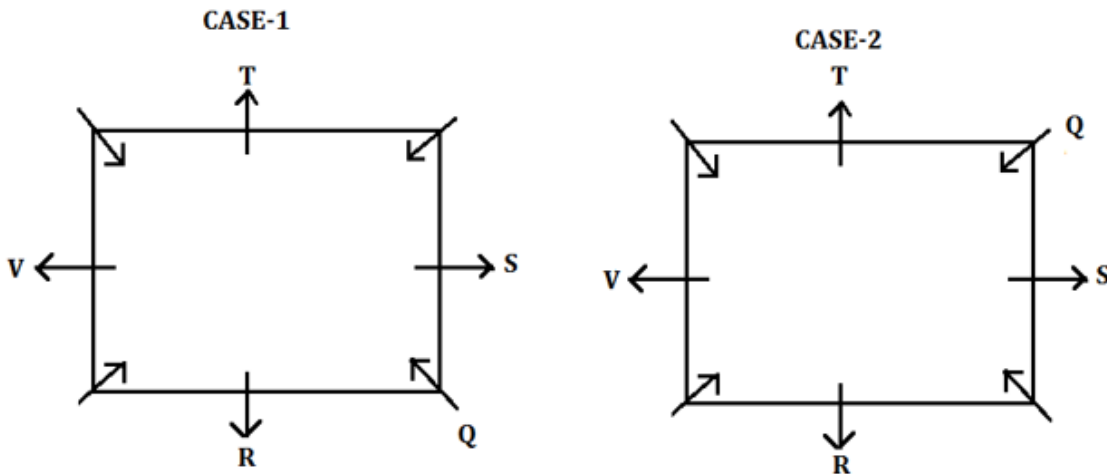


P sits second to the left of U. V is not an immediate neighbour of U. Therefore, case-1 will be eliminated and we got the final arrangement-

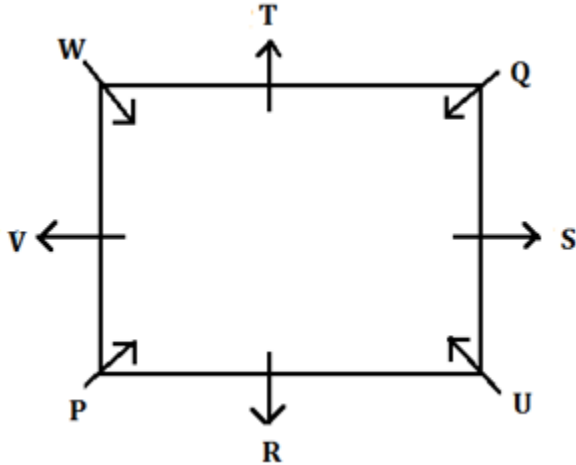


**S28. Ans.(d)**

**Sol.** From the given statements, V sits second to the right of R. R sits in the middle of one of the sides of table. Only two people sit between V and Q. S is one of the immediate neighbours of Q. T sits second to the left of S. So, there will be two possibilities-

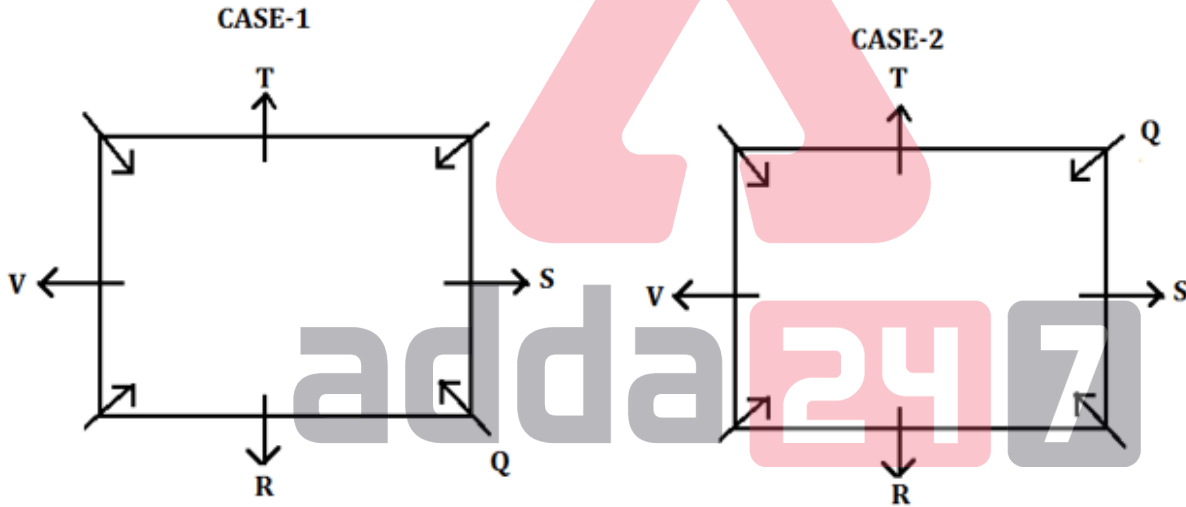


P sits second to the left of U. V is not an immediate neighbour of U. Therefore, case-1 will be eliminated and we got the final arrangement-

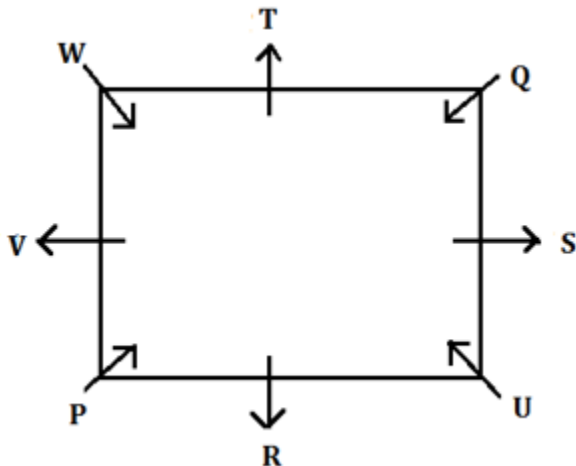


**S29. Ans.(e)**

**Sol.** From the given statements, V sits second to the right of R. R sits in the middle of one of the sides of table. Only two people sit between V and Q. S is one of the immediate neighbours of Q. T sits second to the left of S. So, there will be two possibilities-

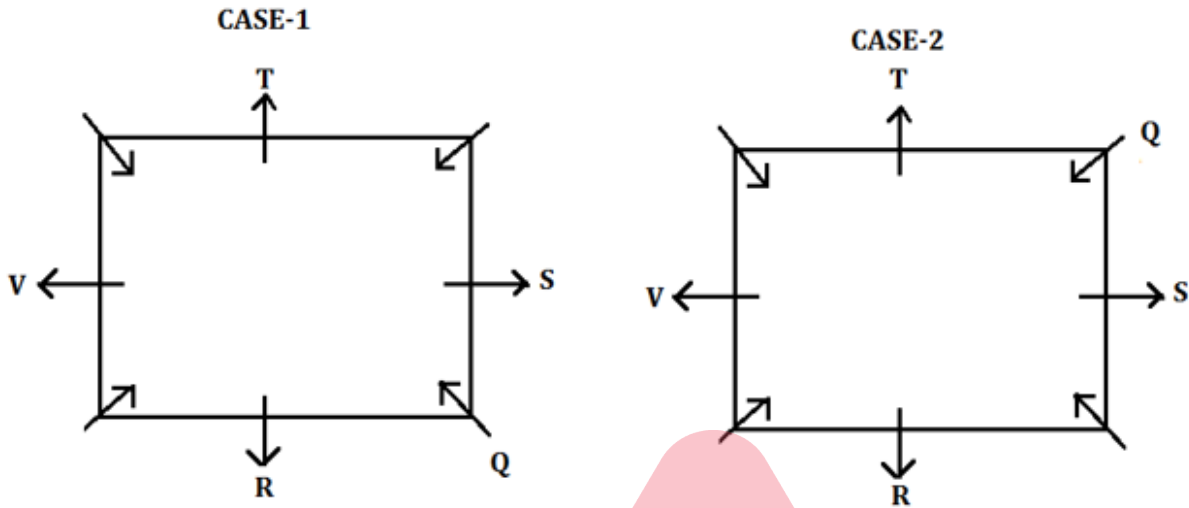


P sits second to the left of U. V is not an immediate neighbour of U. Therefore, case-1 will be eliminated and we got the final arrangement-

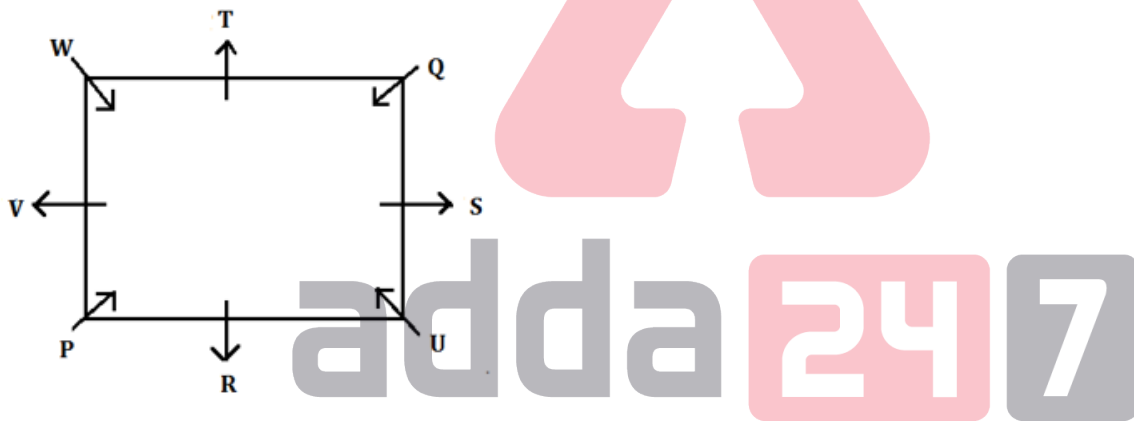


**S30. Ans.(a)**

**Sol.** From the given statements, V sits second to the right of R. R sits in the middle of one of the sides of table. Only two people sit between V and Q. S is one of the immediate neighbours of Q. T sits second to the left of S. So, there will be two possibilities-



P sits second to the left of U. V is not an immediate neighbour of U. Therefore, case-1 will be eliminated and we got the final arrangement-



**S31. Ans.(a)**

**Sol.** JUNGLEBOOK  
BEGJKN00U

**S32. Ans.(e)**

**Sol.** 829, 299, 889, 493 and 483

**S33. Ans.(e)**

**Sol.** 112, 128, 992, 388, 934 and 348

**S34. Ans.(a)**

**Sol.** 7<sup>th</sup> number from the left end = 9

4<sup>th</sup> number from the right end = 3

The product is-  $9 \times 3 = 27$

**S35. Ans.(b)****Sol.** 10<sup>th</sup> number from the right end = 95<sup>th</sup> number from the left end = 8

The addition is = 9+ 8 =17

**S36. Ans.(c)****Sol.** The number which is 2<sup>nd</sup> to the right of the one which is 12<sup>th</sup> from the left end, i.e 12+2= 14<sup>th</sup> from the left end = 4**S37. Ans.(d)****Sol.** From the given Conditions: K goes to market immediately before M and O goes to market immediately after M. One person goes to market between M and L. Two persons go to market between O and N. here there are three case possibilities-

Case 1	Case 2	Case 3
Persons	Persons	Persons
L	N	K
K	K	M
M	M	O
O	O	L
	L	
		N
N		

P goes to market immediately after Q. P does not go to market at last. J goes to market before N. J does not go to market after O. One person goes to market between P and O. Here case 2 and case 3 gets eliminated. So, the final solution is-

Persons
J
L
K
M
O
Q
P
N

**S38. Ans.(c)****Sol.** From the given Conditions: K goes to market immediately before M and O goes to market immediately after M. One person goes to market between M and L. Two persons go to market between O and N. here there are three case possibilities-

Case 1	Case 2	Case 3
Persons	Persons	Persons
L	N	K
K	K	M
M	M	O
O	O	L
	L	
		N
N		

P goes to market immediately after Q. P does not go to market at last. J goes to market before N. J does not go to market after O. One person goes to market between P and O. Here case 2 and case 3 gets eliminated. So, the final solution is-

Persons
J
L
K
M
O
Q
P
N



**S39. Ans.(b)**

**Sol.** From the given Conditions: K goes to market immediately before M and O goes to market immediately after M. One person goes to market between M and L. Two persons go to market between O and N. here there are three case possibilities-

Case 1	Case 2	Case 3
Persons	Persons	Persons
L	N	K
K	K	M
M	M	O
O	O	L
	L	
		N
N		

P goes to market immediately after Q. P does not go to market at last. J goes to market before N. J does not go to market after O. One person goes to market between P and O. Here case 2 and case 3 gets eliminated. So, the final solution is-

Persons
J
L
K
M
O
Q
P
N



**S40. Ans.(a)**

**Sol.** From the given Conditions: K goes to market immediately before M and O goes to market immediately after M. One person goes to market between M and L. Two persons go to market between O and N. here there are three case possibilities-

Case 1	Case 2	Case 3
Persons	Persons	Persons
L	N	K
K	K	M
M	M	O
O	O	L
	L	
		N
N		



P goes to market immediately after Q. P does not go to market at last. J goes to market before N. J does not go to market after O. One person goes to market between P and O. Here case 2 and case 3 gets eliminated. So, the final solution is-

Persons
J
L
K
M
O
Q
P
N

**S41. Ans.(c)**

**Sol.**

Let radius of cylinder = r

And height of cylinder = h

Total surface area of cylinder =  $2\pi r(r + h)$

Curved surface area of cylinder =  $2\pi rh$

ATQ,

$$\frac{2\pi r(r+h)}{2\pi rh} = \frac{4}{3}$$

$$\Rightarrow 3r+3h = 4h$$

$$\Rightarrow 3r = h$$

$$\text{Required \%} = \frac{h-r}{h} \times 100 = \frac{3r-r}{3r} \times 100$$

$$= \frac{200}{3} \% = 66\frac{2}{3} \%$$



**S42. Ans.(a)**

**Sol.**

Let length of train = L meters

ATQ—

$$108 \times \frac{5}{18} = \frac{L+240}{14}$$

$$30 \times 14 = L + 240$$

$$L = 180 \text{ meters}$$

Let time taken by train be T sec to cross goods train

$$= (144 + 108) \times \frac{5}{18} = \frac{180+320}{T}$$

$$252 \times \frac{5}{18} = \frac{500}{T}$$

$$T = \frac{500}{70}$$

$$T = 7\frac{1}{7} \text{ sec.}$$

**S43. Ans.(d)**

**Sol.**

Total age of Satish, Sandy & Abhi

$$= 32 \times 3 = 96 \text{ years}$$

Total age 10 years ago =  $96 - 30 = 66$  years

$$\text{Present age of Satish} = \frac{66}{11} \times 2 + 10 = 22 \text{ yrs}$$

**S44. Ans.(b)**

**Sol.**

Ratio of profit → Archit : Sandy

$$2 \times 4 : 3 \times 5$$

$$8 : 15$$

Let profit of Archit be  $8x$  and Sandy be  $15x$ .

ATQ,

$$15x - 8x = 420$$

$$7x = 420$$

$$x = 60$$

$$\text{Required total} = 60 \times 23 = \text{Rs. } 1380$$

**S45. Ans.(d)**

**Sol.**

Let the quantity of milk in the original mixture be  $3x$ .

And the quantity of water be  $2x$ .

ATQ,

$$\frac{3x+40}{2x} = \frac{2}{1}$$

$$\Rightarrow 4x = 3x + 40$$

$$\Rightarrow x = 40$$

$$\text{Quantity of new mixture} = 5 \times 40 + 40 = 240 \text{ lit.}$$

$$\therefore \text{Required quantity of water} = (240 - 90) \times \frac{1}{3} = 50 \text{ lit.}$$

**S46. Ans.(c)**

**Sol.**

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

ATQ,

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

$$144 - 0.6x = x$$

$$1.6x = 144$$

$$x = 90$$

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

S47. 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,

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

$$x = 84$$

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

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

$\therefore$  selling price after 20% discount

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

$$\therefore \text{Profit after 20\% discount} = 9408 - 8400 \\ = \text{Rs } 1008$$

S48. Ans.(d)

Sol. Let the sum was 'Rs.  $x$ '.

$$\text{Rate of interest per 10 months} = \frac{18}{12} \times 10$$

$$= 15\%$$

$$\text{Total time} = \frac{5}{3} \times 12$$

$$= 20 \text{ months}$$

ATQ

$$129 = x \left[ \left( 1 + \frac{15}{100} \right)^2 - 1 \right]$$

$$129 = x \left[ \frac{529}{400} - 1 \right]$$

$$129 = x \times \frac{129}{400}$$

$$x = \text{Rs. } 400$$

S49. Ans.(c)

Sol.

$$\text{Total possible outcomes} = 6^3 = 216$$

$$\text{Feasible outcomes} = (6, 6, 4), (4, 6, 6), (6, 4, 6), (5, 5, 6), (6, 5, 5) \text{ and } (5, 6, 5)$$

$$\text{Required probability} = \frac{6}{216}$$

$$= \frac{1}{36}$$

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**S50. Ans.(c)**

**Sol.** Let two numbers are  $5x$  and  $7x$  respectively.

ATQ

$$\frac{5x+30}{7x+30} = \frac{3}{4}$$

$$20x + 120 = 21x + 90$$

$$x = 30$$

So, two numbers are 150 and 210 respectively.

$$\text{Now, required ratio} = \frac{150-10}{210-10} = \frac{140}{200} = \frac{7}{10}$$

**S51. Ans.(c)**

**Sol.**

$$\text{Required average} = \frac{(22+19+18) \times 24000}{3 \times 100}$$

$$= 4,720$$

**S52. Ans.(a)**

**Sol.**

$$\text{Total number of accidents caused by trucks and autos} = \frac{30}{100} \times 24000 = 7200$$

$$\text{Required number of injuries} = \frac{11}{24} \times 7200$$

$$= 3300$$

**S53. Ans.(d)**

**Sol.**

Number of accidents of male

$$= \frac{5}{8} \times 24000$$

$$= 15000$$

$$\text{Number of male accidents due to Car and Cycle} = 15000 \times \frac{40}{100} = 6000$$

$$\text{Number of female accidents due to car and cycle} = 24000 \times \frac{29}{100} - 6000$$

$$= 6960 - 6000$$

$$= 960$$

**S54. Ans.(c)**

**Sol.**

$$\text{Required angle} = \frac{(36-27)}{100} \times 360$$

$$= 32.4^\circ$$

**S55. Ans.(a)**

**Sol.**

$$\text{Number of spot deaths} = \frac{48}{100} \times 24000$$

$$= 11,520$$

$$\text{Total population of city} = \frac{11520}{25} \times 4 \times 100$$

$$= 1,84,320$$

$$\text{Number of female populations} = \frac{184320 \times 11}{24} = 84,480$$

**S56. Ans.(e)**

**Sol.** Pattern of series

$$1 + 5 \times 7 - 1 = 35$$

$$35 + 5 \times 6 - 2 = 63$$

$$63 + 5 \times 5 - 3 = 85$$

$$85 + 5 \times 4 - 4 = 101$$

$$? = 101 + 5 \times 3 - 5 = 111$$

Alternate



**S57. Ans.(a)**

**Sol.** Pattern of series

$$11 \times 2 = 22$$

$$22 \times 3 = 66$$

$$66 \times 5 = 330$$

$$? = 330 \times 7 = 2310$$

$$2310 \times 11 = 25410$$

**S58. Ans.(c)**

**Sol.** Pattern of series

$$-5 + 3 \times 2 = 1$$

$$1 + 3 \times 4 = 13$$

$$? = 13 + 3 \times 6 = 31$$

$$31 + 3 \times 8 = 55$$

$$55 + 3 \times 10 = 85$$

Alternate

$$-5 + 6 \times 1 = 1$$

$$1 + 6 \times 2 = 13$$

$$13 + 6 \times 3 = 31$$

$$31 + 6 \times 4 = 55$$

$$55 + 6 \times 5 = 85$$

**S59. Ans.(d)**

**Sol.**

Pattern of series

$$4 + 1 = 5$$

$$4^2 + 1 = 17$$

$$4^3 + 1 = 65$$

$$4^4 + 1 = 257$$

$$4^5 + 1 = 1025$$

$$? = 4^6 + 1 = 4097$$

*Alternate*

$$5 \times 4 - 3 = 17$$

$$17 \times 4 - 3 = 65$$

$$65 \times 4 - 3 = 257$$

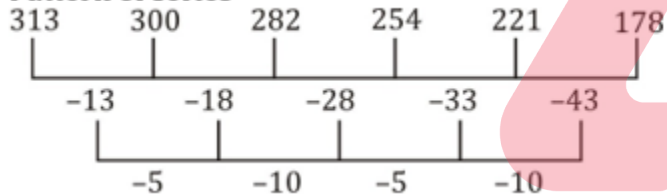
$$257 \times 4 - 3 = 1025$$

$$1025 \times 4 - 3 = 4097$$

**S60. Ans.(a)**

**Sol.**

Pattern of series



**S61. Ans.(b)**

**Sol.**

$$\frac{18}{100} \times 650 - \frac{8}{100} \times 1150 \approx ?^2$$

$$117 - 92 \approx ?^2$$

$$?^2 \approx 25$$

$$? \approx 5$$

**S62. Ans.(a)**

**Sol.**

$$\frac{?-8}{20} \times 36 \approx 72$$

$$? - 8 \approx \frac{72 \times 20}{36}$$

$$? \approx 40 + 8$$

$$? \approx 48$$

**S63. Ans.(e)**

**Sol.**

$$\frac{30}{100} \times \frac{4}{7} \times \frac{1}{8} \times 420 \approx ?$$

$$? \approx 9$$

S64. Ans.(c)

Sol.

$$720 \times \frac{1}{80} \times \frac{1}{60} \times 120 \approx ?$$
$$? \approx 18$$

S65. Ans.(e)

Sol.

$$\frac{900 \times 25}{36} \approx (? + 17)^2$$
$$(? + 17)^2 \approx 625$$
$$? + 17 \approx 25$$
$$? \approx 8$$

S66. Ans.(a)

Sol.

$$\text{Male employee in company A in 2016} = 2000 \times \frac{45}{100} = 900$$

$$\text{Male employee in company A in 2017} = 2140 \times \frac{45}{100} = 963$$

$$\text{Required percentage} = \frac{963 - 900}{900} \times 100 = 7\%$$

S67. Ans.(c)

Sol. Required no. of female employees =  $(4000 + 1000) \times \frac{45}{100} = 2250$

S68. Ans.(d)

Sol.

$$\text{Male employees of company B in 2017 and 2016 together} = (2000 + 3500) \times \frac{40}{100} = 2200$$

$$\text{Female employees of company D in 2016} = 4000 \times \frac{45}{100} = 1800$$

$$\text{Required ratio} = 2200 : 1800$$
$$= 11 : 9$$

S69. Ans.(c)

Sol.

$$\text{Required percentage} = \frac{3500 \times \frac{40}{100}}{2000} \times 100$$
$$= \frac{1400}{2000} \times 100 = 70\%$$



**S70. Ans.(a)**

**Sol.**

Increase in male employees of company C from 2016 to 2017  $= (3500 - 2200) \times \frac{60}{100} = 780$

Increase in female employees of company A from 2016 to 2018  $= (4000 - 2000) \times \frac{55}{100} = 1100$

Required ratio = 780: 1100  
= 39: 55

**S71. Ans.(b)**

**Sol.**

I.  $x^2 + x - 6 = 0$

$$x^2 + 3x - 2x - 6 = 0$$

$$x(x + 3) - 2(x + 3) = 0$$

$$(x + 3)(x - 2) = 0$$

$$x = -3, 2$$

II.  $y^2 + 7y + 12 = 0$

$$y^2 + 4y + 3y + 12 = 0$$

$$y(y + 4) + 3(y + 4) = 0$$

$$y = -3, -4$$

So,  $x \geq y$

**S72. Ans.(a)**

**Sol.**

$$2x^2 - 17x + 35 = 0$$

$$2x^2 - 10x - 7x + 35 = 0$$

$$2x(x - 5) - 7(x - 5) = 0$$

$$(2x - 7)(x - 5) = 0$$

$$x = \frac{7}{2}, 5$$

II.  $4y^2 - 19y + 21 = 0$

$$4y^2 - 12y - 7y + 21 = 0$$

$$4y(y - 3) - 7(y - 3) = 0$$

$$(4y - 7)(y - 3) = 0$$

$$y = \frac{7}{4}, 3$$

So,  $x > y$

**S73. Ans.(c)**

**Sol. I.**  $x - 512 = 1331$

$$x = 1843$$

**II.**  $y = 2197 - 353$

$$y = 1844$$

So,  $y > x$



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**S74. Ans.(d)**

**Sol.**

$$\text{I. } x^2 + 39x + 380 = 0$$

$$x^2 + 19x + 20x + 380 = 0$$

$$x(x + 19) + 20(x + 19) = 0$$

$$(x + 19)(x + 20) = 0$$

$$x = -19, -20$$

$$\text{II. } y^2 + 37y + 342 = 0$$

$$y^2 + 18y + 19y + 342 = 0$$

$$y(y + 18) + 19(y + 18) = 0$$

$$(y + 18)(y + 19) = 0$$

$$y = -18, -19$$

So,  $y \geq x$

**S75. Ans.(e)**

**Sol.**

$$\text{I. } x = \frac{2}{x} + \frac{2}{x}$$

$$x^2 = 4$$

$$x = \pm 2$$

$$\text{II. } y^2 - y - y + 1 = 0$$

$$y(y - 1) - 1(y - 1) = 0$$

$$(y - 1)^2 = 0$$

$$y = 1$$

So, no relation can be established.

**S76. Ans.(d)**

**Sol.**

$$\begin{aligned} \text{Required average} &= \frac{2000+2400+1800+2500}{4} = \frac{8700}{4} \\ &= 2175 \end{aligned}$$

**S77. Ans.(a)**

**Sol.**

$$\begin{aligned} \text{Required percentage} &= \frac{(2000+2250)-(1500+1850)}{(2000+2250)} \times 100 \\ &= \frac{4250-3350}{4250} \times 100 = \frac{900}{4250} \times 100 \\ &= \frac{360}{17} = 21.176 \approx 21\% \end{aligned}$$

**S78. Ans.(c)**

**Sol.**

$$\begin{aligned} \text{Required ratio} &= \frac{1750+2000+2250+2400}{1200+1350+800+1250} = \frac{8400}{4600} \\ &= 42:23 \end{aligned}$$

**S79. Ans.(e)**

**Sol.** Difference in revenue  $= (1850 - 1350) \times 120 = 500 \times 120$   
 $= \text{Rs } 60,000$

**S80. Ans.(b)**

**Sol.**

$$\begin{aligned} \text{Required percentage} &= \frac{1800}{2000} \times 100 \\ &= 90\% \end{aligned}$$

