Freshersnow PO mockt test

Reasoning

Puzzle

Direction (1 to 4) :Study the information carefully and answer the questions given below.

Ten boxes are arranged in two stacks from bottom to top numbered as 1-5. Each stack contains 5 boxes. Stack A is in the west of Stack B.
No box is placed below the box D. Box J is placed two boxes above Box D but not in the same stack. Box H is in the east of box G, which is placed below the box J. Box A is placed two places above the box H, but in the same stack. The number of boxes below A is one less the number of boxes above box B. Both boxes A and B are not in the same stack. Box C is in the east of box F and placed just above the box E. Box K is placed in the south-east of the box F.

Direction (1 to 4) :
जानकारीकाध्यानपूर्वकअध्ययनकरेंऔरनीचेदिएगएप्रश्नोंकेउत्तरदें।
दसबॉक्सकोदोस्टैकमेंनीचेसेऊपरकीओरक्रमांकित 1-5 केरूपमेंव्यवस्थितकियागयाहै।प्रत्येकस्टैकमें 5 बॉक्सहैं।स्टैक A, स्टैक B केपश्चिममेंहै।
बॉक्स D केनीचेकोईबॉक्सनहींरखागयाहै।बॉक्स J कोबॉक्स D

केदोबॉक्सऊपररखागयाहैलेकिनएकहीस्टैकमेंनहींरखागयाहै। बॉक्स H, बॉक्स G केपूर्वमेंहै, जिसेबॉक्स J केनीचेरखागयाहै।बॉक्स A कोबॉक्स H केदोस्थानऊपररखागयाहै, लेकिनएकहीस्टैकमें। A केनीचेकेबक्सोंकीसंख्या, बॉक्स B केऊपरवालेबक्सोंकीसंख्यासेएककमहै।दोनोंबॉक्स A और B एकहीस्टैकमेंनहींहैं।बॉक्स C, बॉक्स F केपूर्वमेंहैऔरबॉक्स E केठीकऊपररखाहै।बॉक्स K, डिब्बा F केदक्षिण-पूर्वमेंरखाहै।
Note: The number of boxes between X and Y is 2 it means both the boxes are placed in the same stack.
नोट: X और Y केबीचबॉक्सकीसंख्या 2 हैइसकाअर्थहैकिदोनोंबॉक्सएकहीस्टैकमेंरखेगएहैं।

1) How many boxes are placed between the box A and Box K (in the same stack)?

1) बॉक्स A औरबॉक्स K (एकहीस्टैकमें) केबीचकितनेबॉक्सरखेगएहैं?

a)None
कोईनही

b)Three
तीन

c) Two
दो

d) One
एक

e) Can’t be determined
निर्धारितनहीकियाजासकता

Solution: From the given statements, no box is placed below the box D. Here we get 2 possible cases- Case 1 and Case 2. Box J is placed two boxes above Box D but not in the same stack. Box H is in the east of box G, which is placed below the box J.

Case 1		Case 2	
Stack A	Stack B	Stack A	Stack B
	J	J	
G	H	G	H
D			D

Box A is placed two places above the box H, but in the same stack. The number of boxes below A is one less the number of boxes above box B. Both boxes A and B are not in the same stack. From this condition case-1 will be eliminated.

Case 2	
Stack A	Stack B
	A
J	
G	H
B	D

Box C is in the east of box F and placed just above the box E. Box K is placed in the south-east of the box F. The final arrangement is-

Stack A	Stack B
F	C
E	A
J	K
G	H
B	D

2) Which of the following statement is true?
निम्नलिखितमेंसेकौनसाकथनसत्यहै?
I, Box E is placed in the north-east of Box K
बॉक्स E, बॉक्स K केउत्तर-पूर्वमेंरखाहै
II. Box B is in the west of Box D
बॉक्स B, बॉक्स D केपश्चिममेंहै
III. Box J is placed below the box G
बॉक्स J, बॉक्स G केनीचेरखागयाहै

a) Both II and III
II और III दोनों

b) Only II
केवल II

c) Both I and II
I और II दोनों

d)Only III
केवल III

e)None is true
कोईभीसत्यनहींहै

Solution: From the given statements, no box is placed below the box D. Here we get 2 possible cases- Case 1 and Case 2. Box J is placed two boxes above Box D but not in the same stack. Box H is in the east of box G, which is placed below the box J.

Case 1		Case 2	
Stack A	Stack B	Stack A	Stack B
	J	J	
G	H	G	H
D			D

Box A is placed two places above the box H, but in the same stack. The number of boxes below A is one less the number of boxes above box B. Both boxes A and B are not in the same stack. From this condition case-1 will be eliminated.

Case 2	
Stack A	Stack B
	A
J	
G	H
B	D

Box C is in the east of box F and placed just above the box E. Box K is placed in the south-east of the

box F. The final arrangement is-

Stack A	Stack B
F	C
E	A
J	K
G	H
B	D

3) Four of the following five are alike in a certain way and so form a group. Find the one who does not belong to that group?
निम्नलिखितपांचमेंसेचारएकनिश्चिततरीकेसेसमानहैंऔरइसलिएएकसमूहबनातेहैं।वहज्ञातकरेजोउससमूहसेसंबंधितनहींहै?

a)C

b)K

c)D

d)H

e)G

Solution: From the given statements, no box is placed below the box D. Here we get 2 possible cases- Case 1 and Case 2. Box J is placed two boxes above Box D but not in the same stack. Box H is in the east of box G, which is placed below the box J.

Case 1		Case 2	
Stack A	Stack B	Stack A	Stack B
	J	J	
G	H	G	H
D			D

Box A is placed two places above the box H, but in the same stack. The number of boxes below A is one less the number of boxes above box B. Both boxes A and B are not in the same stack. From this condition case-1 will be eliminated.

Case 2	
Stack A	Stack B
	A
J	
G	H
B	D

Box C is in the east of box F and placed just above the box E. Box K is placed in the south-east of the box F. The final arrangement is-

Stack A	Stack B
F	C
E	A
J	K
G	H
B	D

4) The number of boxes placed between box E and box B (in the same stack) is same as the number of boxes placed between box ___ and box ___?

4) बॉक्स E औरबॉक्स B (एकहीस्टैकमें) केबीचरखेगएबॉक्सोंकीसंख्या, बॉक्स ___ औरबॉक्स ___

केबीचरखेगएबॉक्सकीसंख्याकेसमानहै?

a)C and H
C और H

b)A and C
A और C

c)K and D
K और D

d)C and K
C और K

e)None of these
इनमेंसेकोईनहीं

Solution: From the given statements, no box is placed below the box D. Here we get 2 possible cases- Case 1 and Case 2. Box J is placed two boxes above Box D but not in the same stack. Box H is in the east of box G, which is placed below the box J.

Case 1		Case 2	
Stack A	Stack B	Stack A	Stack B
	J	J	
G	H	G	H
D			D

Box A is placed two places above the box H, but in

the same stack. The number of boxes below A is one less the number of boxes above box B. Both boxes A and B are not in the same stack. From this condition case-1 will be eliminated.

Case 2	
Stack A	Stack B
	A
J	
G	H
B	D

Box C is in the east of box F and placed just above the box E. Box K is placed in the south-east of the box F. The final arrangement is-

Stack A	Stack B
F	C
E	A
J	K
G	H
B	D

Problems on Alphabets

5) If we form a meaningful word by the first, second, fourth and eighth letter of the word **‘TRAVELLING”,** then which of the following will be the first letter of the word thus formed. If more than one word is formed mark Y as your answer. If no meaningful word is formed, mark X as your answer?

5) यदिहमशब्द 'TRAVELLING' केपहले, दूसरे, चौथेऔरआठवेंअक्षरसेएकअर्थपूर्णशब्दबनातेहैं,

तोइसप्रकारबनेशब्दकापहलाअक्षरकौनसाहोगा।यदिएकसेअधिकशब्दबनतेहैंतो Y कोअपनाउत्तरदें।यदिकोईसार्थकशब्दनहींबनताहै, तो X कोअपनाउत्तरदें?

a)X

b)R

c)Y

d)V

e)I

Solution : A)

Seating Arrangement

Direction (6-10) : Study the following information carefully and answer the questions given below:

Eight persons B, D, F, G, K, M, N and O are sitting in a row facing towards the north but not necessarily in the same order. G sits 2nd from one of the ends. One person sits between G and N. B sits 4th to the left of O, who sits near to N. K sits 2nd to the right of F. The number of persons sit to the left of M is one more than the persons sit to the right of D. M does not sit near to F.

Direction (9 to 13)
:निम्नलिखितजानकारीकाध्यानपूर्वकअध्ययनकरेंऔरनीचेदिएग एप्रश्नोंकेउत्तरदें:
आठव्यक्ति B, D, F, G, K, M, N और O एकपंक्तिमेंउत्तरकीओरउन्मुखहोकरबैठेहैंलेकिनजरूरीनहीं किइसीक्रममेंहों। G किसीएकछोरसेदूसरेस्थानपरबैठाहै। G और N केबीचएकव्यक्तिबैठाहै। B, O केबायेंसेचौथेस्थानपरबैठाहै, जो N केनिकटबैठाहै। K, F केदायेंसेदूसरेस्थानपरबैठाहै। M केबायींओरबैठेव्यक्तियोंकीसंख्या D केदायेंबैठेव्यक्तियोंकीसंख्यासेएकसेअधिकहै। M, F केनिकटनहींबैठाहै।

6) Who among the following is an immediate neighbour of D?
6) निम्नलिखितमेंसेकौन D कानिकटतमपडोसीहै?

a)F

b)B

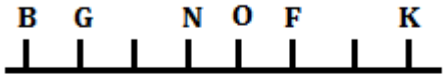
c)K

d)Either (a) or (c)
यातो (a) या (c)

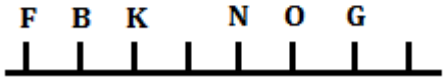
e)Both (a) and (c)
दोनों (a) और (c)

Solution:
From the given statements, G sits 2nd from one of the ends. Here, we get 2 possibilities i.e., Case 1 and Case 2. One person sits between G and N. B sits 4th to the left of O, who sits near to N. K sits 2nd to the right of F.

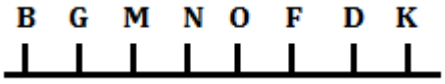
Case 1



Case 2



From the given statements, the number of persons sit to the left of M is one more than the persons sit to the right of D. Here Case 2 is ruled out now. M does not sit near to F.
So, the final arrangement-



7) Who among the following sits 3rd to the right of M?
7) निम्नलिखितमेंसेकौन M केदायेंसेतीसरेस्थानपरबैठाहै?

a)D

b)F

c)B

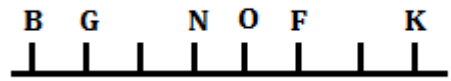
d)G

e)K

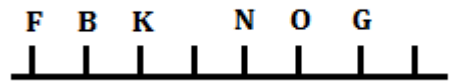
Solution:

From the given statements, G sits 2nd from one of the ends. Here, we get 2 possibilities i.e., Case 1 and Case 2. One person sits between G and N. B sits 4th to the left of O, who sits near to N. K sits 2nd to the right of F.

Case 1

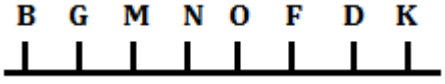


Case 2



From the given statements, the number of persons sit to the left of M is one more than the persons sit to the right of D. Here Case 2 is ruled out now. M does not sit near to F.

So, the final arrangement-



8) Who among the following sits at one of the extreme ends?

8) निम्नलिखितमेंसेकौनअंतिमछोरपरबैठाहै?

a)F

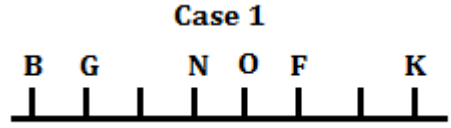
b)O

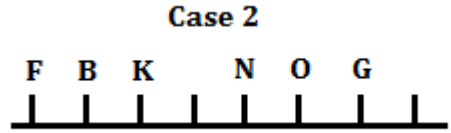
c)B

d)M

e)None of these
इनमेंसेकोईनहीं

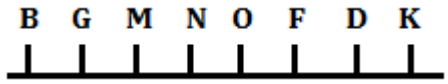
Solution:
From the given statements, G sits 2nd from one of the ends. Here, we get 2 possibilities i.e., Case 1 and Case 2. One person sits between G and N. B sits 4th to the left of O, who sits near to N. K sits 2nd to the right of F.





From the given statements, the number of persons sit to the left of M is one more than the persons sit to the right of D. Here Case 2 is ruled out now. M does not sit near to F.

So, the final arrangement-



9) Four of the following five are alike in a certain way and hence they form a group. Which one of the following does not belong to that group?

9)
निम्नलिखितपांचमेंसेचारएकनिश्चिततरीकेसेसमानहैंऔरइसलिएवेएकसमूहबनातेहैं।निम्नलिखितमेंसेकौनसाउससमूहसेसंबंधितनहींहै?

a)G

b)D

c)N

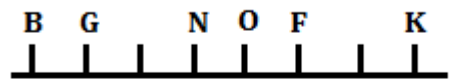
d)M

e)K

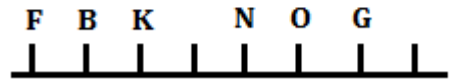
Solution:

From the given statements, G sits 2nd from one of the ends. Here, we get 2 possibilities i.e., Case 1 and Case 2. One person sits between G and N. B sits 4th to the left of O, who sits near to N. K sits 2nd to the right of F.

Case 1

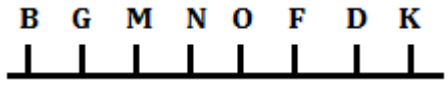


Case 2



From the given statements, the number of persons sit to the left of M is one more than the persons sit to the right of D. Here Case 2 is ruled out now. M does not sit near to F.

So, the final arrangement-



10) If all the persons are sitting in alphabetical order from left to right from B, then find how many persons remains at the same position (excluding B)?

10) यदिसभीव्यक्ति B सेबाएंसेदाएंवर्णानुक्रममेंबैठेहैं, तोज्ञातकीजिएकिकितनेव्यक्तिसमानस्थानपररहतेहैं (B कोछोड़कर)?

a)Four
चार

b)Five
पांच

c) Seven
सात

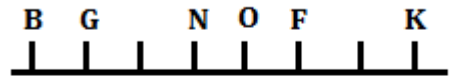
d) None
कोईनहीं

e) Six
छह

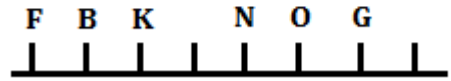
Solution:

From the given statements, G sits 2nd from one of the ends. Here, we get 2 possibilities i.e., Case 1 and Case 2. One person sits between G and N. B sits 4th to the left of O, who sits near to N. K sits 2nd to the right of F.

Case 1

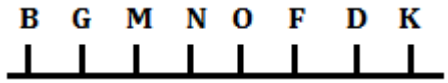


Case 2



From the given statements, the number of persons sit to the left of M is one more than the persons sit to the right of D. Here Case 2 is ruled out now. M does not sit near to F.

So, the final arrangement-



Inequality

Direction (11-14) :In these questions, a relationship between different elements is shown in the statements. The statements are followed by two conclusions. Give answer

Direction (11-14) :इनप्रश्नोंमें, कथनोंमेंविभिन्नतत्वोंकेबीचसंबंधोंकोदर्शायागयाहै।कथनोंकेबाददोनिष्कर्षदिएगएहैं।उत्तरदीजिये

11) Statement: P < Q = G < D ≤ E< F > M
Conclusion:
I. M ≥ Q
II. M < G
कथन: P < Q = G < D ≤ E< F > M
निष्कर्ष:
I. M ≥ Q
II. M < G

a)if only conclusion II is true.
यदिकेवलनिष्कर्ष II सत्यहै।

b)if only conclusion I is true.
यदिकेवलनिष्कर्ष I सत्यहै।

c)if neither conclusion I nor II is true.
यदिनतोनिष्कर्ष I औरनही II सत्यहै।

d)if either conclusion I or II is true.
यदियातोनिष्कर्ष I या II सत्यहै।

e)if both conclusions I and II are true.
यदिनिष्कर्ष I और II दोनोंसत्यहैं।

Solution:I. M ≥ Q(False)
II. M <G(False)

12) Statement: M ≥ K > A > S =H > D > B
Conclusion:
I. A > B
II. K < D
कथन: M ≥ K > A > S =H > D > B
निष्कर्ष:
I. A > B
II. K < D

a)if both conclusion I and II are true.
यदिनिष्कर्ष I और II दोनोंसत्यहैं।

b)if only conclusion I is true.
यदिकेवलनिष्कर्ष I सत्यहै।

c)if neither conclusion I nor II is true.
यदिनतोनिष्कर्ष I औरनही II सत्यहै।

d)if either conclusion I or II is true.
यदियातोनिष्कर्ष I या II सत्यहै।

e)if only conclusion II is true.
यदिकेवलनिष्कर्ष II सत्यहै।

Solution:I. A>B(True)
II. K<D (False)

13) Statement: A ≥ K; N < T; M ≥ N; K ≥ T
Conclusion:
I. K ≥ N
II. A > M
कथन: A ≥ K; N < T; M ≥ N; K ≥ T
निष्कर्ष:
I. K ≥ N
II. A > M

a)if only conclusion II is true.
यदिकेवलनिष्कर्ष II सत्यहै।

b)if either conclusion I or II is true.
यदियातोनिष्कर्ष I या II सत्यहै।

c)if neither conclusion I nor II is true.
यदिनतोनिष्कर्ष I औरनही II सत्यहै।

d)if only conclusion I is true.
यदिकेवलनिष्कर्ष I सत्यहै।

e)if both conclusions I and II are true.
यदिनिष्कर्ष I और II दोनोंसत्यहैं।

Solution:I. K≥N(False)
II. A>M (False)

14) Statement: J > T; R ≤ N; T > R; N < M
Conclusion:
I. R < M
II. J > M
कथन: J > T; R ≤ N; T > R; N < M
निष्कर्ष:
I. R < M
II. J > M

a)if only conclusion II is true.
यदिकेवलनिष्कर्ष II सत्यहै।

b)if only conclusion I is true.
यदिकेवलनिष्कर्ष I सत्यहै।

c)if neither conclusion I nor II is true.
यदिनतोनिष्कर्ष I औरनही II सत्यहै।

d)if either conclusion I or II is true.
यदियातोनिष्कर्ष I या II सत्यहै।

e)if both conclusions I and II are true.
यदिनिष्कर्ष I और II दोनोंसत्यहैं।

Solution:I. R<M(True)
II. J>M(False)

Problems on Alphabets

15) How many pairs of letters are there in the word **"TRANSPARENCY"** each of which have as many letters between them (both forward and backward directions) in the word as they have between them in the English alphabetical series?
20) शब्द "TRANSPARENCY" मेंवर्णोंकेऐसेकितनेयुग्महैं, जिनमेंसेप्रत्येककेबीचउतनेहीवर्णहैं
(आगेऔरपीछेदोनोंदिशाओंमें)
जितनेउनकेबीचअंग्रेजीवर्णमालाश्रृंखलामेंआतेहैं?

a)Three
तीन

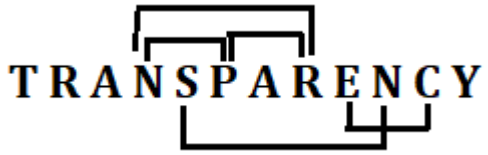
b)None
कोईनहीं

c) One
एक

d) Two
दो

e) More than Three
तीनसेअधिक

Solution:



Puzzle

Direction(16-20):Study the following information carefully and answer the questions given below.

Eight persons – A, B, C, D, E, F, G, and H were born in different months i.e January, March, April, June, September, October, November and December of the same year but not necessarily in the same order. Three persons were born between B and G and both were born in the month which has 31 days. A was born just after G. The number of persons were born between A and B is same as the number of persons were born between D and H. D was born just before B. E was born

before F and after C.

Direction(16-20):□□□□□□□□□□ □□□□□□□ □□ □□□□□□□□□□ □□□□□□ □□□□ □□ □□□□ □□□ □□ □□□□□□□□ □□ □□□□□ □□□□

□□ □□□□□□□□□□- A, B, C, D, E, F, G, □□ H □□ □□□□ □□ □□ □□□□ □□ □□□-□□□ □□□□□□ □□□□□□ □□□□□, □□□□□, □□□□□□, □□□, □□□□□□, □□□□□□□, □□□□□ □□ □□□□□□ □□□ □□□ □□, □□□□□ □□□□□ □□□□ □□ □□□□ □□□□ □□□ □□□□ B □□ G □□ □□□ □□□ □□□□□□□□□□ □□ □□□□ □□□ □□ □□□□□ □□ □□□□ □□ □□□□□ □□□ □□□, □□□□□□ 31 □□□ □□□□ □□□□ A □□ □□□□ G □□ □□□ □□□ □□□ □□□ A □□ B □□ □□□ □□□□ □□□□ □□□□ □□□□□□□□□□ □□ □□□□□□ D □□ H □□ □□□ □□□□ □□□□ □□□□ □□□□□□□□□□ □□ □□□□□□ □□ □□□□ □□□ D □□ □□□□ B □□ □□□ □□□□ □□□ □□□ E □□ □□□□ F □□ □□□□ □□ C □□ □□□ □□□ □□□

16)Who among the following person was born in the month of October?

16) □□□□□□□□□□ □□□ □□ □□□ □□□□□□□ □□ □□□□ □□□□□□□ □□ □□□□□ □□□ □□□ □□?

1. A

2. B

3. H

4. D

5. None of these
□□□□□ □□ □□□ □□□□

Solution: From the given statements, three persons were born between B and G and both were born in the month which has 31 days. Here we have two possibilities i.e., Case 1 and Case 2. A was born just after G.

Month	Case 1	Case 2
	Persons	Persons
January		
March	G	B
April	A	
June		
September		
October	B	G
November		A
December		

The number of persons were born between A and B is same as the number of persons were born between D and H. D was born just before B. Here Case 2 is ruled out now.

Month	Case 1
	Persons
January	
March	G
April	A
June	
September	D
October	B
November	
December	H

E was born before F and after C. So, the final arrangement is-

Month	Persons
January	C
March	G
April	A
June	E
September	D
October	B
November	F
December	H

17)How many persons were born between C and E?

17)C □□ E □□ □□□ □□□□□ □□□□□□□□□□ □□ □□□□ □□□?

1. None

□□□ □□□□

2. One
□□

3. Three
□□□

4. Two
□□

5. More than thee
□□□ □□ □□□□

Solution: From the given statements, three persons were born between B and G and both were born in the month which has 31 days. Here we have two possibilities i.e., Case 1 and Case 2. A was born just after G.

Month	Case 1	Case 2
	Persons	Persons
January		
March	G	B
April	A	
June		
September		
October	B	G
November		A
December		

The number of persons were born between A and B is same as the number of persons were born between D

and H. D was born just before B. Here Case 2 is ruled out now.

Month	Case 1
	Persons
January	
March	G
April	A
June	
September	D
October	B
November	
December	H

E was born before F and after C. So, the final arrangement is-

Month	Persons
January	C
March	G
April	A
June	E
September	D
October	B
November	F
December	H

18)Which of the following is true, as per the given information?

18) □□ □□ □□□□□□□ □□ □□□□□□, □□□□□□□□□□□ □□□ □□ □□□ □□ □□□□ □□?

1. Four persons were born between G and B
G □□ B □□ □□□ □□□ □□□□□□□□□□ □□ □□□□ □□□

2. No one was born after H
H □□ □□□ □□□□ □□ □□□□ □□□□ □□□

3. F was born just before A
F □□ □□□□ A □□ □□□ □□□□ □□□

4. C was born in the month which has 30 days
C □□ □□□□ 30 □□□□□ □□ □□□□□ □□□ □□□

5. All are true

Solution: From the given statements, three persons were born between B and G and both were born in the month which has 31 days. Here we have two possibilities i.e., Case 1 and Case 2. A was born just after G.

Month	Case 1	Case 2
	Persons	Persons
January		
March	G	B
April	A	
June		
September		
October	B	G
November		A
December		

The number of persons were born between A and B is same as the number of persons were born between D and H. D was born just before B. Here Case 2 is ruled out now.

Month	Case 1
	Persons
January	
March	G
April	A
June	
September	D
October	B
November	
December	H

E was born before F and after C. So, the final arrangement is-

Month	Persons
January	C
March	G
April	A
June	E
September	D
October	B
November	F
December	H

19)Four of the following five are alike in a certain way and hence they form a group. Which one of the following does not belong to that group?

19) □□□□□□□□□□ □□□□ □□□ □□ □□□ □□ □□□□□□□ □□□□□ □□ □□□□ □□□ □□ □□□□□ □□ □□ □□□□ □□□□□ □□□□ □□□□□□□□□□ □□□ □□ □□□ □□ □□ □□□□ □□ □□□□□□□ □□□□ □□?

1. B

2. H

3. C

4. F

5. G

Solution: From the given statements, three persons were born between B and G and both were born in the month which has 31 days. Here we have two possibilities i.e., Case 1 and Case 2. A was born just after G.

Month	Case 1	Case 2
	Persons	Persons
January		
March	G	B
April	A	
June		
September		
October	B	G
November		A
December		

The number of persons were born between A and B is same as the number of persons were born between D and H. D was born just before B. Here Case 2 is ruled out now.

Month	Case 1
	Persons
January	
March	G
April	A
June	
September	D
October	B
November	
December	H

E was born before F and after C. So, the final arrangement is-

Month	Persons
January	C
March	G
April	A
June	E
September	D
October	B
November	F
December	H

20)Who among the following person was born just before C?

20) □□□□□□□□□□ □□□ □□ □□□ □□□□□□□ □□ □□□□ C □□ □□□ □□□□ □□□ □□?

1. G

2. E

3. F

4. H

5. No one

□□□ □□□□

Solution: From the given statements, three persons were born between B and G and both were born in the month which has 31 days. Here we have two possibilities i.e., Case 1 and Case 2. A was born just after G.

Month	Case 1	Case 2
	Persons	Persons
January		
March	G	B
April	A	
June		
September		
October	B	G
November		A
December		

The number of persons were born between A and B is same as the number of persons were born between D and H. D was born just before B. Here Case 2 is ruled out now.

Month	Case 1
	Persons
January	
March	G
April	A
June	
September	D
October	B
November	
December	H

E was born before F and after C. So, the final arrangement is-

Month	Persons
January	C
March	G
April	A
June	E
September	D
October	B
November	F
December	H

Seating Arrangement

Direction (21 to 25) : Study the following information carefully and answer the questions given below:

Eight friends are sitting around a square table in such a way that four of them sit at four corners of the square and face inside while four sit at the middle of each of the four sides and face outside. Each of them works on different dates of the same month, viz. 5, 11, 13, 15, 18, 21, 26 and 29 but not necessarily in the same order.

B sits third to the right of the one who works on 29. B works on an even date. C works on 26 and sits opposite to A. C sits immediate right to the one who works on date 29. A doesn't sit at the corner. H sits opposite to F and the sum of the dates on which they are working is 26. Only two persons sit between F and G who works on date 11. C is an immediate neighbor of both E and the one who works on 21. The difference between the dates on which C and A works are 11. D sits opposite to E.

Direction (21 to 25)

:निम्नजानकारीकाध्यानपूर्वकअध्ययनकीजियेऔरनीचेदिएगएप्रश्नोंकेउत्तरदीजिये।

आठमित्रएकवर्गाकारमेजकेचारोंओरइसप्रकारबैठेहैंकिउनमेंसेचारवर्गकेचारोंकोनोंपरबैठेहैंऔरअंदरकीओरउन्मुखहैंजबकिचार,

चारभुजाओंमेंसेप्रत्येककेमध्यमेंबैठेहैंऔरबाहरकीओरउन्मुखहैं ।उनमेंसेप्रत्येकएकहीमहीनेकीविभिन्नतिथियोंपरकार्यकरताहै, अर्थात 5, 11, 13, 15, 18, 21, 26 और 29
लेकिनजरूरीनहींइसीक्रममेंहो।
B उसव्यक्तिकेदायेंसेतीसरेस्थानपरबैठाहैजो 29 कोकार्यकरताहै। B समतिथिपरकार्यकरताहै। C, 26 कोकार्यकरताहैऔर A केविपरीतबैठताहै। C, 29 तिथिकोकार्यकरनेवालेकेठीकदायेंबैठाहै। A कोनेपरनहींबैठाहै। H, F केविपरीतबैठाहैऔरजिसतिथिकोवेकार्यकररहेहैंउसकायोग 26 है। F और G केबीचकेवलदोव्यक्तिबैठेहैं, जोतिथि 11 कोकार्यकरताहै। C, E और 21 कोकार्यकरनेवालेदोनोंकानिकटतमपड़ोसीहै। C और A कार्यकरनेकीतिथियोंकेबीचकाअंतर 11 है। D, E केविपरीतबैठाहै।

21) Who sits opposite to the one who works on date 11?
21) तिथि 11 कोकार्यकरनेवालेकेविपरीतकौनबैठाहै?

a)The one who works on date 18
वहजोतिथि 18 कोकार्यकरताहै

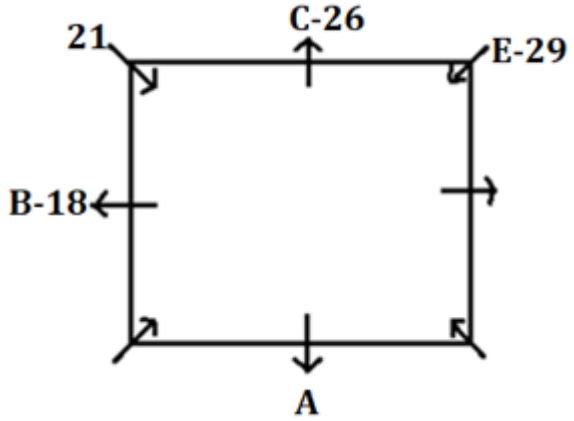
b)C

c)A

d)D

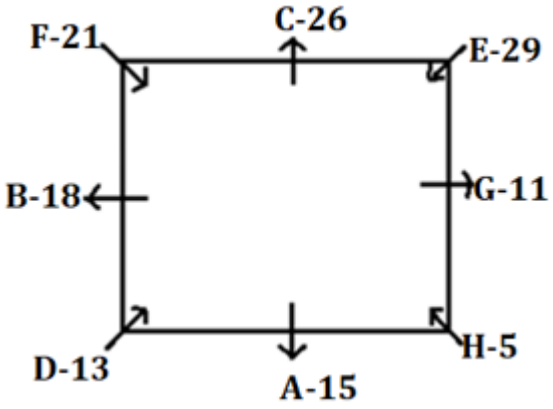
e)G

Solution: From the condition, A doesn't sit at the corner. C works on 26 and sits opposite to A. C sits immediate right to the one who works on 29. B works on an even date, which means B works on 18. B sits third to the right of the one who works on 29. C is an immediate neighbour of both E and the one who works on 21, so E works on 29.



The difference between the dates on which C and A works is 11, hence A works on 15 this is the only possibility. H sits opposite to F, so either F or H can work on 21 but from the condition, only two persons sit between F and G who works on 11, it will be fixed that F works on 21. The Sum of the dates on which F and H are working is 26, hence H works on 5 and D works on 13. We will get the

final solution.



22) The one who works on date 18
22) H केदायेंसेदूसरेस्थानपरकौनबैठाहै?

a)A

b)E

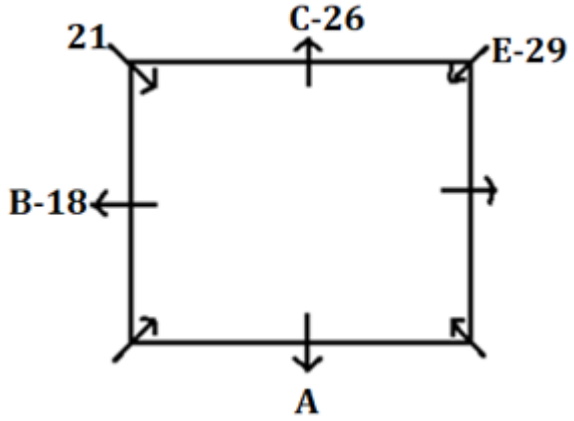
c)F

d)D

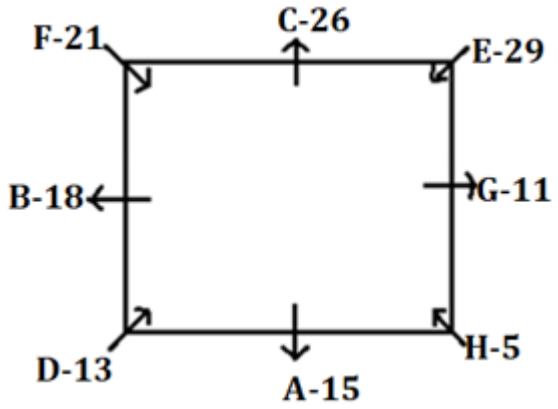
e)B

Solution: From the condition, A doesn't sit at the corner. C works on 26 and sits opposite to A. C sits immediate right to the one who works on 29. B works on an even date, which means B works on 18. B sits third to the right of the one who works on 29. C is an immediate neighbour of both E and the

one who works on 21, so E works on 29.



The difference between the dates on which C and A works is 11, hence A works on 15 this is the only possibility. H sits opposite to F, so either F or H can work on 21 but from the condition, only two persons sit between F and G who works on 11, it will be fixed that F works on 21. The Sum of the dates on which F and H are working is 26, hence H works on 5 and D works on 13. We will get the final solution.



23) If A and H interchange their positions, then who sits to the immediate right of A?

23) यदि A और H अपनास्थानआपसमेंबदललेतेहैं, तो A केठीकदायेंकौनबैठाहै?

a)F

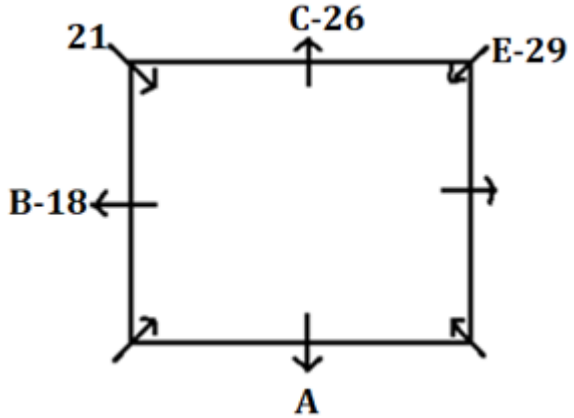
b)E

c)D

d)C

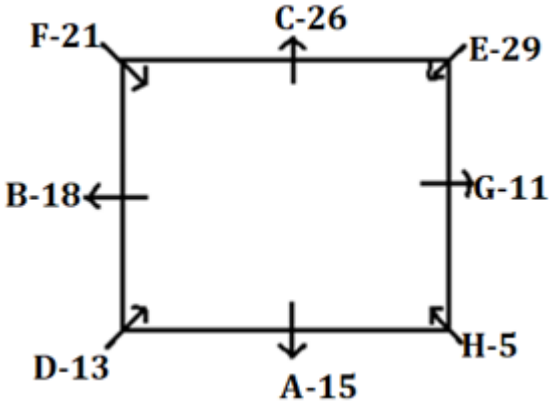
e)G

Solution: From the condition, A doesn't sit at the corner. C works on 26 and sits opposite to A. C sits immediate right to the one who works on 29. B works on an even date, which means B works on 18. B sits third to the right of the one who works on 29. C is an immediate neighbour of both E and the one who works on 21, so E works on 29.



The difference between the dates on which C and A works is 11, hence A works on 15 this is the only possibility. H sits opposite to F, so either F or H can work on 21 but from the condition, only two persons sit between F and G who works on 11, it will be fixed that F works on 21. The Sum of the

dates on which F and H are working is 26, hence H works on 5 and D works on 13. We will get the final solution.



24) Four of the following five are alike in a certain way and so form a group. Find the one which does not belong to that group?

24)
निम्नलिखितपांचमेंसेचारएकनिश्चिततरीकेसेसमानहैंऔरइसलिएएकसमूहबनातेहैं।वहज्ञातकीजिएजोउससमूहसेसंबंधितनहींहै?

a)G

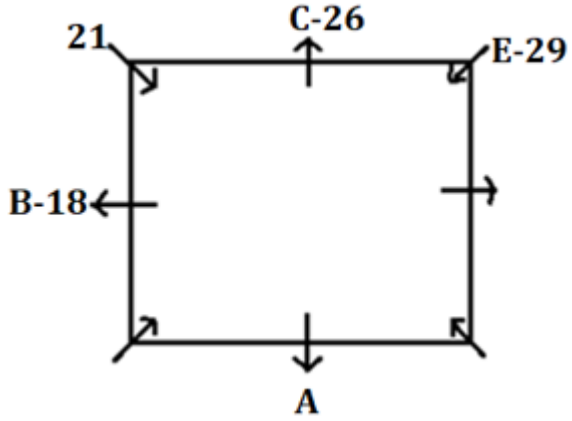
b)B

c)A

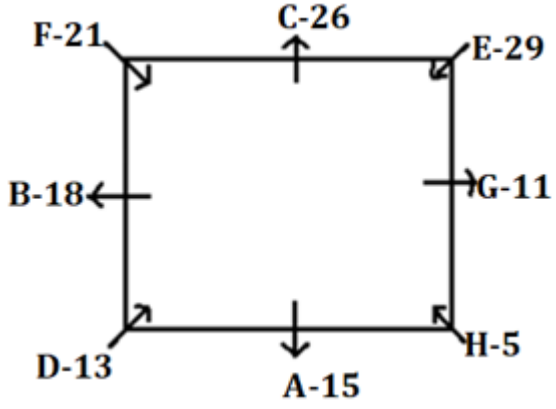
d)F

e)C

Solution: From the condition, A doesn't sit at the corner. C works on 26 and sits opposite to A. C sits immediate right to the one who works on 29. B works on an even date, which means B works on 18. B sits third to the right of the one who works on 29. C is an immediate neighbour of both E and the one who works on 21, so E works on 29.



The difference between the dates on which C and A works is 11, hence A works on 15 this is the only possibility. H sits opposite to F, so either F or H can work on 21 but from the condition, only two persons sit between F and G who works on 11, it will be fixed that F works on 21. The Sum of the dates on which F and H are working is 26, hence H works on 5 and D works on 13. We will get the final solution.



25) How many persons sit between H and F?
25) H और F केमध्यकितनेव्यक्तिबैठेहैं?

a) One
एक

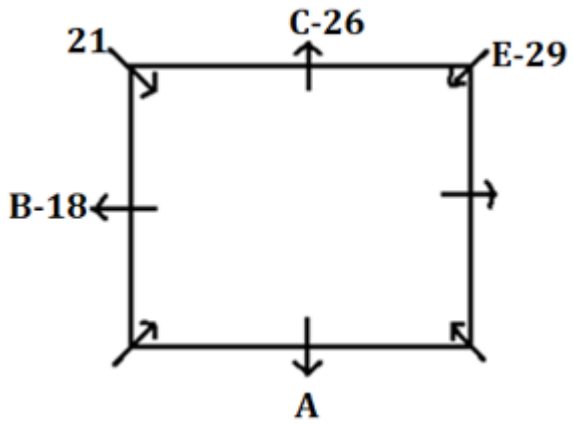
b) Two
दो

c) Three
तीन

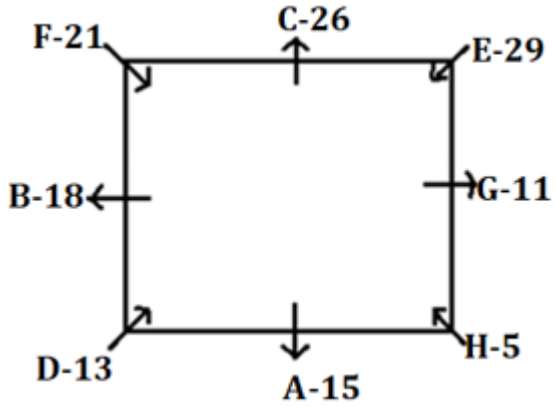
d) Four
चार

e) Five
पांच

Solution: From the condition, A doesn’t sit at the corner. C works on 26 and sits opposite to A. C sits immediate right to the one who works on 29. B works on an even date, which means B works on 18. B sits third to the right of the one who works on 29. C is an immediate neighbour of both E and the one who works on 21, so E works on 29.



The difference between the dates on which C and A works is 11, hence A works on 15 this is the only possibility. H sits opposite to F, so either F or H can work on 21 but from the condition, only two persons sit between F and G who works on 11, it will be fixed that F works on 21. The Sum of the dates on which F and H are working is 26, hence H works on 5 and D works on 13. We will get the final solution.



Coding & Decoding

Direction (26-30): Study the following information carefully and answer the following question.

The following words are coded in this manner:

‘Gum to stick’ is coded as ‘la ka pa’
‘Fat gum gets’ is coded as ‘vt bt pa’
‘Little man fat plan’ is coded as ‘sm bt da sg’
‘Stick to the plan’ is coded as ‘ka sa la da’

□□□□□□□ **(26-30):** □□□□□□□□□□ □□□□□□□ □□ □□□□□□□□□□ □□□□□□ □□□□ □□□ □□□ □□ □□□□□□□□ □□ □□□□□ □□□:

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‘Gum to stick’ □□ ‘la ka pa’ □□ □□□ □□□ □□□□□□□ □□□□ □□□ □□
‘Fat gum gets’ □□ ‘vt bt pa’ □□ □□□ □□□ □□□□□□□ □□□□ □□□ □□
‘Little man fat plan’ □□ ‘sm bt da sg’ □□ □□□ □□□ □□□□□□□ □□□□ □□□ □□
‘Stick to the plan’ □□ ‘ka sa la da’ □□ □□□ □□□ □□□□□□□ □□□□ □□□ □□

26)What is the code for ‘Stick’?

a)La
b)Pa
c)Ka

d)Sa
e)Cannot be determined

26)‘Stick’ □□ □□□ □□□ □□□□ □□?
a)La
b)Pa
c)Ka
d)Sa
e)□□□□□□□□□ □□□□ □□□□ □□ □□□□ □□

Solution:

Word	Code
Gum	Pa
To	La/ka
Stick	La/ka
Fat	Bt
Gets	Vt
Little	Sm/sg
Man	Sm/sg
Plan	Da
The	Sa

Hence, the code for ‘Stick’ is either ‘la’ or ‘ka’.

27)What is the code for ‘Little man to stick’?
a)pa la ka sg
b)ka la vt da
c)la ka sm sg

d)da ka sm sg
e)Cannot be determined

27)‘Little man to stick’ □□ □□□ □□□ □□□□ □□?
a)pa la ka sg
b)ka la vt da
c)la ka sm sg
d)da ka sm sg
e)□□□□□□□□□ □□□□ □□□□ □□ □□□□ □□

Solution:

Word	Code
Gum	Pa
To	La/ka
Stick	La/ka
Fat	Bt
Gets	Vt
Little	Sm/sg
Man	Sm/sg
Plan	Da
The	Sa

Hence, the code for ‘Little man to stick’ is ‘la ka sm sg’.

28)Which word is coded as ‘da vt’?
a)Gum gets

b)Fat gets
c)Fat plan
d)Plan gets
e)Cannot be determined

28)
□□□ □□□□ □□ ‘da vt’ □□ □□□ □□□ □□□□□□□ □□□□ □□□ □□?

a)Gum gets
b)Fat gets
c)Fat plan
d)Plan gets
e)□□□□□□□□□ □□□□ □□□□ □□ □□□□ □□

Solution:

Word	Code
Gum	Pa
To	La/ka
Stick	La/ka
Fat	Bt
Gets	Vt
Little	Sm/sg
Man	Sm/sg
Plan	Da
The	Sa

Hence, ‘plan gets’ is coded as ‘da vt’.

29)If ‘Stick can’ is coded as ‘ka dm’ then what is the code for ‘fat to can’?

a)ka sa ta
b)Da bt dm
c)Vt bt ka
d)Bt la dm
e)Cannot be determined

29)□□□ ‘Stick can’ □□ ‘ka dm’ □□ □□□ □□□ □□□□□□□ □□□□ □□□ □□ □□ ‘fat to can’ □□ □□□ □□□ □□□□ □□?

a)ka sa ta
b)Da bt dm
c)Vt bt ka
d)Bt la dm
e)□□□□□□□□□ □□□□ □□□□ □□ □□□□ □□

Solution:

Word	Code
Gum	Pa
To	La/ka
Stick	La/ka
Fat	Bt
Gets	Vt
Little	Sm/sg
Man	Sm/sg
Plan	Da
The	Sa

Hence, the code for ‘fat to can’ is ‘bt la dm’.

30)Which word is coded as ‘da vt sg’?

a)Plan man gets
b)Gets plan Little
c)little plan Fat
d)Fat plan gets
e)Cannot be determined

30)□□□ □□□□ □□ ‘da vt sg’ □□ □□□ □□□ □□□□□□□ □□□□ □□□ □□?

a)Plan man gets
b)Gets plan Little
c)little plan Fat
d)Fat plan gets
e)□□□□□□□□□ □□□□ □□□□ □□ □□□□ □□

Solution:

Word	Code
Gum	Pa
To	La/ka
Stick	La/ka
Fat	Bt
Gets	Vt
Little	Sm/sg
Man	Sm/sg
Plan	Da
The	Sa

Hence, the word for the code is either ‘plan gets little’ or ‘plan gets man’

Puzzles

Direction (31 to 35): Study the following information carefully to answer the given questions:

Twelve persons are appearing for an exam on 16th and 27th of the six different months of the same year viz. January, February, April, May, October and November.

R has exam on an odd date. Six persons give exams between R and F. Three persons give exams between H and F. R does not give his exam in February. No one gives exam after M. S

and N have exams in the same month but not in the month which has 30 days. S and R have exams on different dates. N does not give exam after H. G give exam immediately after W and in the month which has 30 days. Only four persons give exam between G and P, who has exam after R. T has exam before V and both give exams on the same date. U and R has exam on different dates.

Direction (31 to 35):

दिएगएप्रश्नोंकेउत्तरदेनेकेलिएनिम्नलिखितजानकारीकाध्यानपूर्वकअध्ययनकरें:

बारहव्यक्तिएकहीवर्षकेछहअलग-अलगमहीनोंअर्थातजनवरी, फरवरी, अप्रैल, मई, अक्टूबरऔरनवंबरकी 16 और 27 तिथिकोएकपरीक्षाकेलिएउपस्थितहोरहेहैं।

R कीपरीक्षाविषमतिथिकोहै।छहव्यक्ति R और F केबीचपरीक्षादेतेहैं।तीनव्यक्ति H और F केबीचपरीक्षादेतेहैं। R फरवरीमेंअपनीपरीक्षानहींदेताहै। M केबादकोईभीपरीक्षानहींदेताहै। S और N कीएकहीमहीनेमेंपरीक्षाहोतीहैलेकिनउसमहीनेमेंनहींजिसमें 30 दिनहोतेहैं। S और R कीपरीक्षाएंअलग-अलगतिथियोंपरहैं। N, H केबादपरीक्षानहींदेताहै। G, W केठीकबादऔर 30 दिनवालेमहीनेमेंपरीक्षादेताहै। G और P, जिसकीपरीक्षा R केबादहै, केमध्यकेवलचारव्यक्तिपरीक्षादेतेहैं। T कीपरीक्षा V सेपहलेहैऔरदोनोंएकहीतिथिकोपरीक्षादेतेहैं। U और R

कीपरीक्षाअलग-अलगतिथियोंपरहै।

31) How many persons have exam after V?
31) V केबादकितनेव्यक्तियोंकीपरीक्षाहै?

a) Three
तीन

b) Four
चार

c) Two
दो

d) More than four
चारसेअधिक

e) None of these
इनमेंसेकोईनहीं

Solution: R has exam on an odd date. Six persons give exams between R and F. R does not give his exam in February. Three persons give exams between H and F. No one gives exam after M. There are three possible cases.

	Case-1		Case-2		Case-3	
Date Month	**16**	**27**	**16**	**27**	**16**	**27**
January		R	F			
February					F	
April	H		H			
May				R	H	
October	F					R
November		M		M		M

S and N have exams in the same month but not in the month which has 30 days. S and R have exams on different dates. N does not give exam after H. G give exam immediately after W and in the month which has 30 days. Only four persons give exam between G and P, who has exam after R. From this condition case-2 will be eliminated. T has exam before V and both give exams on the same date. U and R has exam on different dates. From this condition case-1 will be eliminated and the final arrangement is

Date Month	**16th**	**27th**
January	S	N
February	F	T
April	W	G
May	H	V
October	U	R
November	P	M

32) Which of the following pair of persons have exam in February?

32) निम्नलिखितमेंसेकिसयुग्मकीपरीक्षाफरवरीमेंहै?

a)W, M

b)P, M

c)H, V

d)W, G

e)F, T

Solution:R has exam on an odd date. Six persons give exams between R and F. R does not give his exam in February. Three persons give exams between H and F. No one gives exam after M. There are three possible cases.

	Case-1		Case-2		Case-3	
Date Month	**16**	**27**	**16**	**27**	**16**	**27**
January		R	F			
February					F	
April	H		H			
May				R	H	
October	F					R
November		M		M		M

S and N have exams in the same month but not in the month which has 30 days. S and R have exams on different dates. N does not give exam after H. G give exam immediately after W and in the month which has 30 days. Only four persons give exam between G and P, who has exam after R. From this condition case-2 will be eliminated. T has exam before V and both give exams on the same date. U and R has exam on different dates.

From this condition case-1 will be eliminated and the final arrangement is

Date Month	16th	27th
January	S	N
February	F	T
April	W	G
May	H	V
October	U	R
November	P	M

33) Four of the following five are alike in a certain way so form a group, which of the following does not belong to that group?

33)

निम्नलिखितपांचमेंसेचारएकनिश्चिततरीकेसेसमानहैंइसलिएएक समूहबनातेहैं, निम्नलिखितमेंसेकौनउससमूहसेसंबंधितनहींहै?

a)F

b)W

c)U

d)S

e)T

Solution:R has exam on an odd date. Six persons give exams between R and F. R does not give his

exam in February. Three persons give exams between H and F. No one gives exam after M. There are three possible cases.

	Case-1		Case-2		Case-3	
Date Month	**16**	**27**	**16**	**27**	**16**	**27**
January		R	F			
February					F	
April	H		H			
May				R	H	
October	F					R
November		M		M		M

S and N have exams in the same month but not in the month which has 30 days. S and R have exams on different dates. N does not give exam after H. G give exam immediately after W and in the month which has 30 days. Only four persons give exam between G and P, who has exam after R. From this condition case-2 will be eliminated. T has exam before V and both give exams on the same date. U and R has exam on different dates. From this condition case-1 will be eliminated and the final arrangement is

Date Month	**16th**	**27th**
January	S	N
February	F	T
April	W	G
May	H	V
October	U	R
November	P	M

34) Who among the following person appears for exam immediate before N?

34) निम्नलिखितमेंसेकौन N केठीकपहलेपरीक्षाकेलिएउपस्थितहोताहै?

a)P

b)U

c)V

d)S

e)None of these
इनमेंसेकोईनहीं

Solution:R has exam on an odd date. Six persons give exams between R and F. R does not give his exam in February. Three persons give exams between H and F. No one gives exam after M. There are three possible cases.

	Case-1		Case-2		Case-3	
Date **Month**	**16**	**27**	**16**	**27**	**16**	**27**
January		R	F			
February					F	
April	H		H			
May				R	H	
October	F					R
November		M		M		M

S and N have exams in the same month but not in the month which has 30 days. S and R have exams on different dates. N does not give exam after H. G give exam immediately after W and in

the month which has 30 days. Only four persons give exam between G and P, who has exam after R. From this condition case-2 will be eliminated. T has exam before V and both give exams on the same date. U and R has exam on different dates. From this condition case-1 will be eliminated and the final arrangement is

Date Month	16th	27th
January	S	N
February	F	T
April	W	G
May	H	V
October	U	R
November	P	M

35) Who among the following has exam on 27th May?

35) निम्नलिखितमेंसेकिसकीपरीक्षा 27 मईकोहै?

a)V

b)U

c)W

d)T

e)None of these
इनमेंसेकोईनहीं

Solution:R has exam on an odd date. Six persons give exams between R and F. R does not give his exam in February. Three persons give exams between H and F. No one gives exam after M. There are three possible cases.

	Case-1		Case-2		Case-3	
Date Month	**16**	**27**	**16**	**27**	**16**	**27**
January		R	F			
February					F	
April	H		H			
May				R	H	
October	F					R
November		M		M		M

S and N have exams in the same month but not in the month which has 30 days. S and R have exams on different dates. N does not give exam after H. G give exam immediately after W and in the month which has 30 days. Only four persons give exam between G and P, who has exam after R. From this condition case-2 will be eliminated. T has exam before V and both give exams on the same date. U and R has exam on different dates. From this condition case-1 will be eliminated and

the final arrangement is

Date Month	16th	27th
January	S	N
February	F	T
April	W	G
May	H	V
October	U	R
November	P	M

Puzzle

Direction(36-40):Study the following information carefully and answer the questions given below:

Nine Persons i.e., S, A, R, M, K, B, C, D and G were born in nine different years i.e., 1972, 1985, 1987, 1990, 1994, 1996, 1998, 2000 and 2004 but necessarily in the same order. Ages of all the persons counted as on 2021.

R was born in the year 1990. Only one person was born between R and B. No one was born between B and A. K was born in the year 2000. There is a difference of two years between the age of K and S. D is elder than R but she is not the eldest. C is the youngest person among all. There is a difference of more than two years between the age of M and G where M is elder than G who is younger than D.

Direction(36-40):निम्नलिखित जानकारी का ध्यानपूर्वक

अध्ययन करें और नीचे दिए गए प्रश्नों के उत्तर दें:
नौ व्यक्ति S, A, R, M, K, B, C, D और G का जन्म नौ अलग-अलग वर्षों अर्थात 1972, 1985, 1987, 1990, 1994, 1996, 1998, 2000 और 2004 में हुआ था, लेकिन जरूरी है कि समान क्रम में हो। सभी व्यक्तियों की आयु की गणना 2021 के अनुसार की गई है।
R का जन्म वर्ष 1990 में हुआ था। R और B के बीच केवल एक व्यक्ति का जन्म हुआ था। B और A के बीच किसी का जन्म नहीं हुआ था। K का जन्म वर्ष 2000 में हुआ था। K और S की आयु के बीच दो वर्ष का अंतर है। D, R से बड़ी है लेकिन वह सबसे बड़ी नहीं है। C सभी में सबसे छोटा व्यक्ति है। M और G की आयु के बीच दो वर्ष से अधिक का अंतर है जहाँ M, G से बड़ा है जो D से छोटा है।

36)How many persons were born after A?
36)A के बाद कितने व्यक्तियों का जन्म हुआ?

1. Three
तीन

2. Four
चार

3. More than Five
पांच से अधिक

4. One
एक

5. None of these
इनमें से कोई नहीं

Solution:
From the given statements- R was born in the year 1990. Only one person was born in between R and B. K was born in the year 2000. There is the difference of two years in between the age of K and S. C is the youngest person among all.

Year	Age	Case 1	Case 2
		Persons	Persons
1972	49		
1985	36	B	
1987	34		
1990	31	R	R
1994	27		
1996	25		B
1998	23	S	S
2000	21	K	K
2004	17	C	C

D is elder than R but she is not the eldest. No one was born in between B and A. There are one more case in case-2, i.e case-2(a).

Year	Age	Case 1	Case 2	Case 2(a)
		Persons	Persons	Persons
1972	49	A		
1985	36	B		D
1987	34	D	D	
1990	31	R	R	R
1994	27		A	A
1996	25		B	B
1998	23	S	S	S
2000	21	K	K	K
2004	17	C	C	C

There is the difference of more than two years in

between the age of M and G where M is elder than G who is younger than D.. Here Case 1 and case2(a) will be ruled out now. So, the final arrangement is-

Year	Age	Persons
1972	49	M
1985	36	D
1987	34	G
1990	31	R
1994	27	A
1996	25	B
1998	23	S
2000	21	K
2004	17	C

37)Four of the following five are alike in a certain way and so form a group. Find the one who does not belong to that group?
37)निम्नलिखित पांच में से चार एक निश्चित तरीके से समान हैं और इसलिए एक समूह बनाते हैं। वह ज्ञात करे जो उस समूह से संबंधित नहीं है?

1. M

2. A

3. B

4. D

5. C

Solution:

From the given statements- R was born in the year 1990. Only one person was born in between R and B. K was born in the year 2000. There is the difference of two years in between the age of K and S. C is the youngest person among all.

Year	Age	Case 1	Case 2
		Persons	Persons
1972	49		
1985	36	B	
1987	34		
1990	31	R	R
1994	27		
1996	25		B
1998	23	S	S
2000	21	K	K
2004	17	C	C

D is elder than R but she is not the eldest. No one was born in between B and A. There are one more case in case-2, i.e case-2(a).

Year	Age	Case 1	Case 2	Case 2(a)
		Persons	Persons	Persons
1972	49	A		
1985	36	B		D
1987	34	D	D	
1990	31	R	R	R
1994	27		A	A
1996	25		B	B
1998	23	S	S	S
2000	21	K	K	K
2004	17	C	C	C

There is the difference of more than two years in between the age of M and G where M is elder than G who is younger than D.. Here Case 1 and case2(a) will be ruled out now. So, the final

arrangement is-

Year	Age	Persons
1972	49	M
1985	36	D
1987	34	G
1990	31	R
1994	27	A
1996	25	B
1998	23	S
2000	21	K
2004	17	C

38)Who among the following is 8 years older than S?
38)निम्नलिखित में से कौन S से 8 वर्ष बड़ा है?

1. G

2. D

3. M

4. A

5. R

Solution:
From the given statements- R was born in the year 1990. Only one person was born in between R and B. K was born in the year 2000. There is the difference of two years in between the age of K and S. C is the youngest person among all.

Year	Age	Case 1	Case 2
		Persons	Persons
1972	49		
1985	36	B	
1987	34		
1990	31	R	R
1994	27		
1996	25		B
1998	23	S	S
2000	21	K	K
2004	17	C	C

D is elder than R but she is not the eldest. No one was born in between B and A. There are one more case in case-2, i.e case-2(a).

Year	Age	Case 1	Case 2	Case 2(a)
		Persons	Persons	Persons
1972	49	A		
1985	36	B		D
1987	34	D	D	
1990	31	R	R	R
1994	27		A	A
1996	25		B	B
1998	23	S	S	S
2000	21	K	K	K
2004	17	C	C	C

There is the difference of more than two years in between the age of M and G where M is elder than G who is younger than D.. Here Case 1 and case2(a) will be ruled out now. So, the final arrangement is-

Year	Age	Persons
1972	49	M
1985	36	D
1987	34	G
1990	31	R
1994	27	A
1996	25	B
1998	23	S
2000	21	K
2004	17	C

39)What is the sum of ages of B and S?
39)B और S की आयु का योग क्या है?

1. 48 years
48 वर्ष

2. 58 years
58 वर्ष

3. 44 years
44 वर्ष

4. 65 years
65 वर्ष

5. 54 years
54 वर्ष

Solution:
From the given statements- R was born in the year 1990. Only one person was born in between R and B. K was born in the year 2000. There is the difference of two years in between the age of K and S. C is the youngest person among all.

Year	Age	Case 1	Case 2
		Persons	Persons
1972	49		
1985	36	B	
1987	34		
1990	31	R	R
1994	27		
1996	25		B
1998	23	S	S
2000	21	K	K
2004	17	C	C

D is elder than R but she is not the eldest. No one was born in between B and A. There are one more case in case-2, i.e case-2(a).

Year	Age	Case 1	Case 2	Case 2(a)
		Persons	Persons	Persons
1972	49	A		
1985	36	B		D
1987	34	D	D	
1990	31	R	R	R
1994	27		A	A
1996	25		B	B
1998	23	S	S	S
2000	21	K	K	K
2004	17	C	C	C

There is the difference of more than two years in between the age of M and G where M is elder than G who is younger than D.. Here Case 1 and case2(a) will be ruled out now. So, the final arrangement is-

Year	Age	Persons
1972	49	M
1985	36	D
1987	34	G
1990	31	R
1994	27	A
1996	25	B
1998	23	S
2000	21	K
2004	17	C

40)Who among the following was born in 1998?
40)निम्नलिखित में से किसका जन्म 1998 में हुआ था?

1. G

2. A

3. D

4. C

5. None of these
इनमें से कोई नहीं

Solution:
From the given statements- R was born in the year 1990. Only one person was born in between R and B. K was born in the year 2000. There is the difference of two years in between the age of K and S. C is the youngest person among all.

Year	Age	Case 1	Case 2
		Persons	Persons
1972	49		
1985	36	B	
1987	34		
1990	31	R	R
1994	27		
1996	25		B
1998	23	S	S
2000	21	K	K
2004	17	C	C

D is elder than R but she is not the eldest. No one was born in between B and A. There are one more case in case-2, i.e case-2(a).

Year	Age	Case 1	Case 2	Case 2(a)
		Persons	Persons	Persons
1972	49	A		
1985	36	B		D
1987	34	D	D	
1990	31	R	R	R
1994	27		A	A
1996	25		B	B
1998	23	S	S	S
2000	21	K	K	K
2004	17	C	C	C

There is the difference of more than two years in between the age of M and G where M is elder than G who is younger than D.. Here Case 1 and case2(a) will be ruled out now. So, the final arrangement is-

Year	Age	Persons
1972	49	M
1985	36	D
1987	34	G
1990	31	R
1994	27	A
1996	25	B
1998	23	S
2000	21	K
2004	17	C

Numerical ability

Quadratic equations

Direction(41-45):In each of these questions, two equations (I) and (II) are given. Solve the equations and mark the correct option:

Direction(41-45):इनमें से प्रत्येक प्रश्न में दो समीकरण (I) और (II) दिए गए हैं। समीकरणों को हल कीजिए और सही विकल्प को चिह्नित कीजिए:

41)

I: $2x^2 + 10x + 12 = 0$

II: $y^2 + 10x + 25 = 0$

1. $x > y$

2. $x \geq y$

3. $x < y$

4. $x \leq y$

5. x = y or relation can't be established/या कोई संबंध स्थापित नहीं किया जा सकता

Solution:

I. $2x^2 + 10x + 12 = 0$
$2x^2 + 6x + 4x + 12 = 0$
$(2x + 4)(x + 3) = 0$
$x = -3, -2$
II. $y^2 + 10y + 25 = 0$
$y^2 + 5y + 5y + 25 = 0$
$(y + 5)(y + 5) = 0$
$y = -5$
$\therefore x > y$

42)

I. $x^2 - 5x + 6 = 0$

II. $y^2 - 7y + 6 = 0$

1. $x \leq y$

2. $x \geq y$

3. $x < y$

4. $x > y$

5. x = y or relation can’t be established/या कोई संबंध स्थापित नहीं किया जा सकता

Solution:

I. $x^2 - 3x - 2x + 6 = 0$
$(x - 3)(x - 2) = 0$
$x = 3, 2$
I. $y^2 - 6y - y + 6 = 0$
$(y - 1)(y - 6) = 0$
$y = 1, 6$
∴ relation can't be established

43)

I. $x^2 = 625$
II. $y = \sqrt{625}$

1. $x > y$

2. $x \geq y$

3. $x < y$

4. $x \leq y$

5. x = y or relation can't be established/या कोई संबंध स्थापित नहीं किया जा सकता

Solution:

I. $x = \pm 25$
II. $y = +25$
∴ $x \leq y$

44)

I. $x^2+23x+130=0$

II. $y^2+30y+224=0$

1. x = y or relation can’t be established/या कोई संबंध स्थापित नहीं किया जा सकता

2. x ≥ y

3. x < y

4. x ≤ y

5. x > y

Solution:

I. $x^2 + 23x + 130 = 0$
$x^2+13x+10x+130=0$
$x(x+13)+10(x+13)=0$
$(x+13)(x+10)=0$
$x= -13,-10$
II. $y^2 + 30y + 224 = 0$
$y^2+16y+14y+224 =0$
$y(y+16)+14(y+16)=0$
$(y+16)(y+14)=0$
$y = -16,-14$
So, $x > y$

45)

I. $x^2 + 21x + 108 = 0$

II. $y^2 + 24y + 143 = 0$

1. x = y or relation can’t be established/या कोई संबंध स्थापित नहीं किया जा सकता

2. x ≥ y

3. x < y

4. x ≤ y

5. x > y

Solution:

I. $x^2 + 21x + 108 = 0$
$x^2 + 9x + 12x + 108 = 0$
$x(x+9) + 12(x+9) = 0$
$(x+9)(x+12) = 0$
$x = -9, -12$
II. $y^2 + 24y + 143 = 0$
$y^2 + 11y + 13y + 143 = 0$
$y(y+11) + 13(y+11) = 0$
$(y+13)(y+11) = 0$
$y = -13, -11$
So, no relation

Number system

Direction(46-50):What should come in place of question mark (?) in the following questions?

Direction(46-50):निम्नलिखित प्रश्नों में प्रश्नवाचक चिन्ह (?) के स्थान पर क्या आना चाहिए?

46)

53, 51.4, 48.2, 41.8, ?, 3.4

1. 31

2. 30

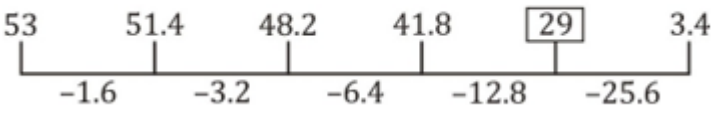
3. 29

4. 29.4

5. 29.6

Solution:

Pattern of series –



47)
6, 4, 5, 11, ?, 189

1. 39

2. 45

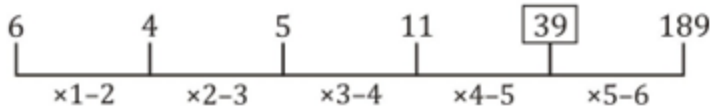
3. 34

4. 36

5. 41

Solution:

Pattern of series –



48)
80, 68, 62, 56, ?, 29

1. 43

2. 44

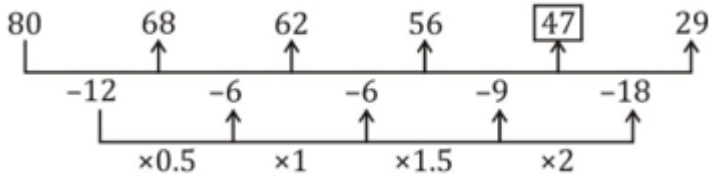
3. 45

4. 46

5. 47

Solution:

Pattern of series –



49)
117, 140, 169, 200, ?, 278

1. 235

2. 237

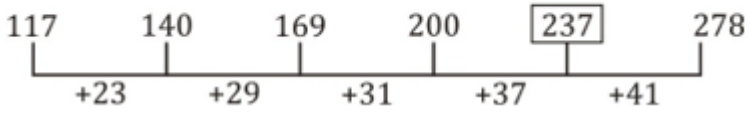
3. 239

4. 241

5. 243

Solution:

Pattern of series –



50)
?, 8, 14, 38 ,98 ,218

1. 2

2. 6

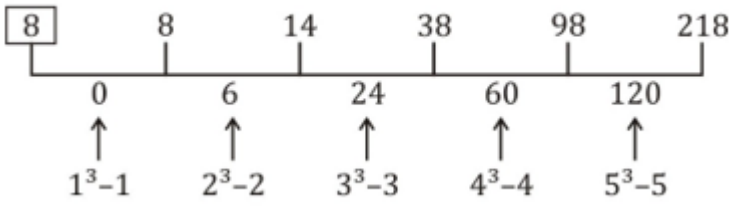
3. 10

4. 8

5. 4

Solution:

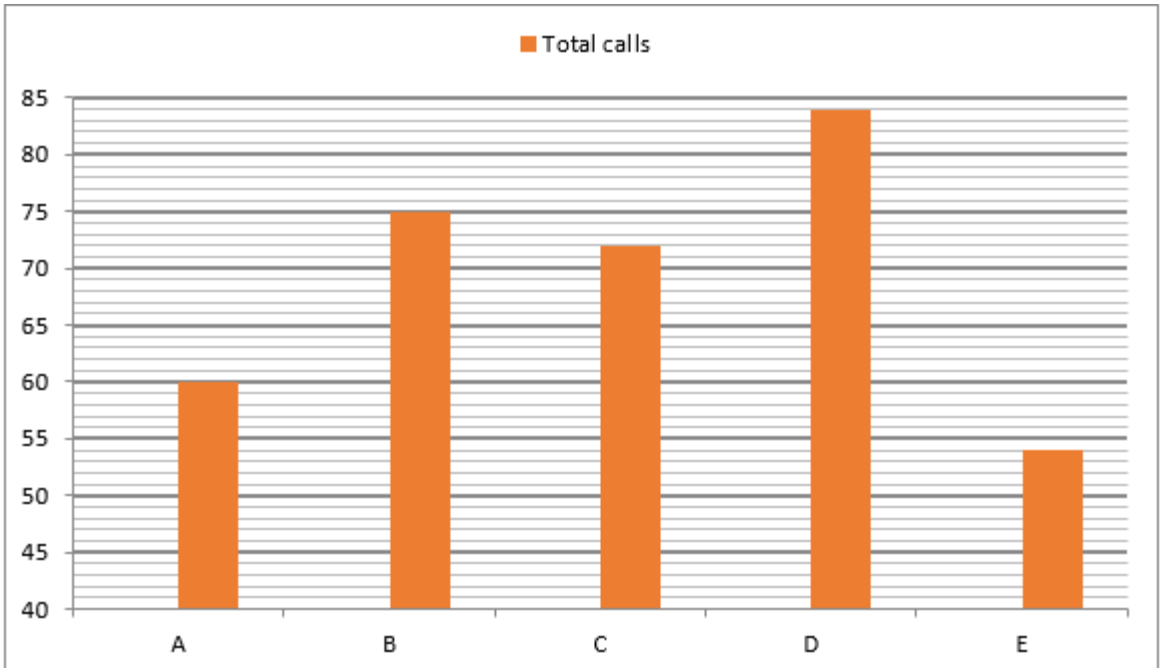
Pattern of series –



Data Interpretation

Direction(51-55): Given below bar graph shows total number of calls (in hundred) received by five mobile network companies and table shows percentage of calls received by female. Read the data carefully and answer the questions.

नीचे दिया गया बार ग्राफ पांच मोबाइल नेटवर्क कंपनियों द्वारा प्राप्त कॉल की कुल संख्या (सौ में) दिखाता है और तालिका महिलाओं द्वारा प्राप्त कॉल का प्रतिशत दर्शाती है। डेटा को ध्यान से पढ़ें और प्रश्नों के उत्तर दें।



Companies कंपनी	Percentage of calls received by females महिलाओं द्वारा प्राप्त कॉल का प्रतिशत
A	65%
B	48%
C	60%
D	70%
E	45%

51)Find the sum of total calls received by male in company A & D together and calls received by female in company B & E together?
51)कंपनी A और D में मिलाकर पुरुष द्वारा प्राप्त कुल कॉल और कंपनी B और E में मिलाकर महिला द्वारा प्राप्त कॉल का योग ज्ञात कीजिए?

1. 9900

2. 10880

3. 11260

4. 10650

5. 9580

Solution:

Total calls received by male in company A & D

$= 6000 \times \frac{35}{100} + 8400 \times \frac{30}{100}$

$= 2100 + 2520$

$= 4620$

Total calls received by female in company B & E

$= 7500 \times \frac{48}{100} + 5400 \times \frac{45}{100}$

$= 6030$

Required sum = 6030 + 4620

= 10650

52)Find difference between total calls received by male in company C & E together and total calls received by female in company D?

52)कंपनी C और E में मिलाकर पुरुष द्वारा प्राप्त कुल कॉल और कंपनी D में महिला द्वारा प्राप्त कुल कॉल के बीच अंतर ज्ञात कीजिए?

1. 40

2. 20

3. 50

4. 30

5. 60

Solution:

Total calls received by male in company C & E

$= 7200 \times \frac{40}{100} + 5400 \times \frac{55}{100}$

$= 5850$

Total class received by female in company D

$= 8400 \times \frac{70}{100}$

$= 5880$

Required difference $= 5880 - 5850 = 30$

53)Find ratio between total calls received by female in company A to total calls received by male in company B?

53)कंपनी A में महिला द्वारा प्राप्त कुल कॉल का कंपनी B में पुरुष द्वारा प्राप्त कुल कॉल के बीच अनुपात ज्ञात कीजिए?

1. 2 : 1

2. 3: 1

3. 4 : 1

4. 5 : 1

5. 1: 1

Solution:

Total calls received by female in company A

$= 6000 \times \frac{65}{100}$

$= 3900$

Total calls received by male in company B

$= 7500 \times \frac{52}{100}$

$= 3900$

Required ratio $= \frac{3900}{3900}$

$= 1 : 1$

54)Total calls received in company F is 60 % more than total calls received by female in company A. If out of total calls received in company F, 75% calls received by female, then find average number of calls received by male in company F & D?

54)कंपनी F में प्राप्त कुल कॉल, कंपनी A में महिला द्वारा प्राप्त कुल कॉल से 60% अधिक है। यदि कंपनी F में प्राप्त कुल कॉल में से, 75% कॉल महिलाओं द्वारा प्राप्त की जाती हैं, तो कंपनी F और D पुरुष द्वारा प्राप्त कॉल की औसत संख्या ज्ञात कीजिए।

1. 2020

2. 2060

3. 2040

4. 2080

5. 2100

Solution:

Total calls received in company F

$= 6000 \times \frac{65}{100} \times \frac{160}{100} = 6240$

Total calls received by male in company F

$= 6240 \times \frac{25}{100} = 1560$

Total calls received by male in company D

$= 8400 \times \frac{30}{100} = 2520$

Required average $= \frac{1560+2520}{2}$

$= \frac{4080}{2}$

$= 2040$

55)Find total number of calls received by male in company A, C & E together?

55)कंपनी A, C और E में मिलाकर पुरुष द्वारा प्राप्त कॉल की कुल संख्या ज्ञात कीजिए?

1. 7940

2. 7930

3. 7910

4. 7980

5. 7950

Solution:

Total number of calls received by male in company A, C & E

$= 6000 \times \frac{35}{100} + 7200 \times \frac{40}{100} + 5400 \times \frac{55}{100}$

$= 2100 + 2880 + 2970$

$= 7950$

Number Series

Direction (56 to 60) : What should come in place of the question mark (?) in the following number series?

Direction (56 to 60) :निम्नलिखितसंख्याश्रृंखलामेंप्रश्नचिन्ह (?) केस्थानपरक्याआनाचाहिए?

56) 50, 59, 84, 133, 254, ?

a)300

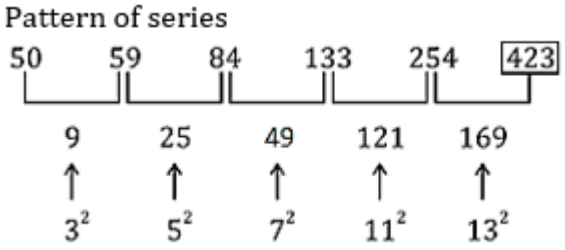
b)352

c)423

d)410

e)378

Solution:



57) 10, 8, 13, ? , 135, 669

a)30

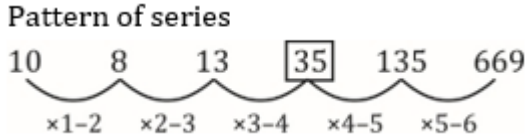
b)32

c)35

d)38

e)40

Solution:



58) 5, 10, 20, ? , 80, 160

a)30

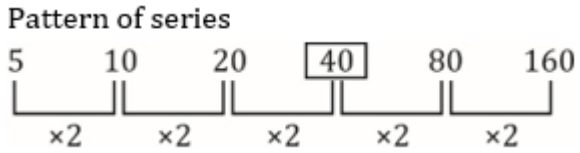
b)35

c)45

d)40

e)None of these
इनमेंसेकोईनहीं

Solution:



59) 459, 457, 913, 911, 1821, ?

a)3640

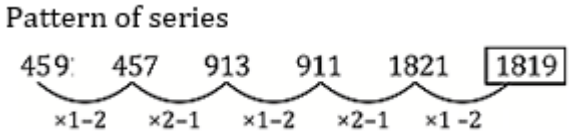
b)3641

c)1819

d)1817

e)1815

Solution:



60) 19, 30, 43, 60, 85, ?

a)100

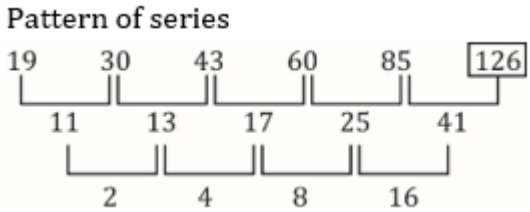
b)110

c)120

d)124

e)126

Solution:



Time and Work

Q.61P and Q together can complete a work in 24 days, while P takes 20 days more than Q to complete the work alone. Find in how many days 50% of work can be completed by Q alone?
61) P और Q मिलकरएककार्यको 24 दिनोंमेंपूराकरसकतेहैं, जबकि P अकेलेकार्यकोपूराकरनेमें Q से 20 दिनअधिकलेताहै।ज्ञातकीजिएकिअकेले Q द्वारा 50% कार्यकितनेदिनोंमेंपूराकियाजासकताहै?

a)10 days/ 10 दिन

b)20 days/ 20 दिन

c)15 days/ 15 दिन

d)30 days/ 30 दिन

e)40 days/ 40 दिन

Solution:
Let Q alone can complete work in ‘d’ days
And P alone can complete work in ‘d+20’ days
ATQ –
$\frac{1}{d}+\frac{1}{d+20}=\frac{1}{24}$
$\frac{2d+20}{d^2+20d}=\frac{1}{24}$
$48d + 480 = d^2 + 20d$
$d^2 - 28d - 480 = 0$
$d = 40$ days
Q alone can complete 100% work in = 40 days
So, Q alone can complete 50% work in = $40 \times \frac{50}{100} = 20\ days$

Simple interest

Q.62 Shivam invested his saving equally in two schemes-A & B and both schemes offering SI for 4 years. He gets interest Rs.7200 from scheme-A and Rs.4800 from scheme-B respectively. Scheme-A & B offers R% p.a. and (R-4)% p.a. respectively. Find value of R.
62) शिवमनेअपनीबचतकोदोयोजनाओं-A और B मेंसमानरूपसेनिवेशकियाऔरदोनोंमें 4 सालकेलिएसाधारणब्याजकीपेशकशथी।उसेयोजना A से 7200 रुपयेऔरयोजना-B से 4800 रुपयेब्याजमिलताहै।योजना-A और B क्रमशः R% प्रतिवर्षऔर (R-4)% प्रतिवर्षप्रदानकरतीहैं। R कामानज्ञातकीजिए।

a)8

b)15

c)12

d)6

e)14

Solution:
Let amount invested by Shivam in each of the

scheme –A & scheme –B be Rs. P.

ATQ,

$\frac{P \times R \times 4}{100} = 7200$

PR = 180000 __(i)

And,

$\frac{P \times (R-4) \times 4}{100} = 4800$

PR – 4P = 120000 __ (ii)

Put value of (i) in (ii):

180000 – 4P = 120000

4P = 60000

P = Rs. 15000

Put value of P in (i):

15000 R = 180000

R = 12%

Probability

Q.63A box contains 5 red balls, 8 green balls and 10 pink balls. A ball is drawn at random from the box. Find the probability that the ball drawn is either red or green.

63) एकबॉक्समें 5 लालगेंदें, 8 हरीगेंदेंऔर 10 गुलाबीगेंदेंहैं।बॉक्ससेयादृच्छिकरूपसेएकगेंदनिकालीजातीहै। निकालीगईगेंदकेलालयाहरेरंगकेहोनेकीप्रायिकताज्ञातकीजिए।

a)13/23

b)10/23

c)11/23

d)13/529

e)12/23

Solution:

$$\text{Required Probability} = \frac{5}{23} + \frac{8}{23} = \frac{13}{23}$$

Problems on Ages

Q.64 Ratio between age of Priya and Swati is 3 : 4. If shikha is 6 year younger than Swati and average age of all three is 31 years, then find Shikha's age?

64) प्रियाऔरस्वातिकीआयुकेबीचकाअनुपात 3:4 है।यदिशिखास्वातिसे 6 वर्षछोटीहैऔरतीनोंकीऔसतआयु 31 वर्षहै, तोशिखाकीआयुज्ञातकीजिए।

a)36 years/ 36 वर्ष

b)32 years/ 32 वर्ष

c)20 years/ 20 वर्ष

d)24 years/ 24 वर्ष

e)30 years/ 30 वर्ष

Solution:

Let age of Priya and Swati be 3x and 4x respectively.

Age of Shikha = (4x – 6) years

ATQ,

$$\frac{3x + 4x + 4x - 6}{3} = 31$$

$11x = 31 \times 3 + 6$

$x = \frac{99}{11} = 9$

Age of shikha = (4 × 9 -6) = 30 years

Percentage

Q.65 Marks scored by Sumit is 12.5% more than Sahil's marks. Ajay got 6 ⅔% more marks then Sumit's. If difference between marks scored by Ajay and Sahil is 40, then find the total marks scored by all three.

65) सुमितद्वाराप्राप्तअंकसाहिलकेअंकोंसे 12.5% अधिकहैं।अजयकोसुमितसे 6 ⅔% अधिकअंकमिले।यदिअजयऔरसाहिलद्वाराप्राप्तअंकोंकाअंत

र 40 है, तोतीनोंद्वाराप्राप्तकुलअंकज्ञातकीजिए।

a)665

b)450

c)555

d)745

e)625

Solution:

Let Sahil's marks = 80x

So, Sumit's marks = $\frac{80x \times 112.5}{100} = 90x$

So, Ajay's marks = $\frac{90x \times 106\frac{2}{3}}{100} = 96x$

ATQ,

Ajay's marks is 40 more than the Sahil's marks

$\Rightarrow 96x - 80x = 40$

$\Rightarrow x = 2.5$

Total marks scored by all three = $(80 + 90 + 96) \times 2.5 = 266 \times 2.5 = 665$

Caselet

Direction(66-70):Study the given passage carefully and answer the questions.
दिए गए अवतरण का ध्यानपूर्वक अध्ययन करें और निम्नलिखित प्रश्नों के उत्तर दें।

In an office, there are 200 employees who consume any product (Espresso, Cappuccino, and Latte) of Nescafe. 25 employees consume espresso & latte both while 15 consume espresso & cappuccino both. 35 consume only latte. 95 employees consume espresso. 30 consume all 3 drinks. 100 employees consume exactly one drink.
Direction(66-70):एक कार्यालय में, 200 कर्मचारी हैं जो नैस्कैफे के किसी भी उत्पाद (एस्प्रेसो, कैपेचीनो और लैट्टे) का उपभोग करते हैं। 25 कर्मचारी एस्प्रेसो और लैट्टे दोनों का सेवन करते हैं जबकि 15 एस्प्रेसो और कैपेचीनो दोनों का सेवन करते हैं। 35 कर्मचारी केवल लैट्टे का सेवन करते हैं। 95 कर्मचारी एस्प्रेसो का सेवन करते हैं। 30 सभी 3 पेय का सेवन करते हैं। 100 कर्मचारी केवल एक पेय का सेवन करते हैं।

66)How many employees do drink exactly 2 drinks?
66)कितने कर्मचारी 2 प्रकार के पेय का सेवन करते हैं?

1. 75

2. 100

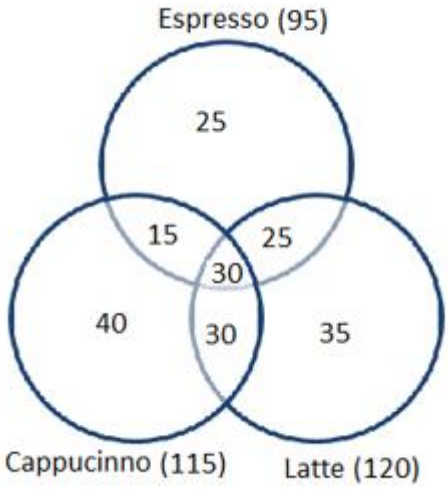
3. 70

4. 80

5. 65

Solution:

Employees who consume only espresso
$= 95 - (15 + 30 + 25) = 25$
Employees who consume only cappuccino
$= 100 - (25 + 35) = 40$
Employees who consume latte & cappuccino both
$= 200 - (25 + 15 + 40 + 25 + 30 + 35)$
$= 30$



employees who drink exactly 2 drinks = $15 + 25 + 30 = 70$

67)Employees consuming cappuccino are approximately what percent of employees consuming latte?
67)कैपेचीनो का सेवन करने वाले कर्मचारी, लैट्टे का सेवन

करने वाले कर्मचारियों का लगभग कितना प्रतिशत है?

1. 92%

2. 98%

3. 94%

4. 96%

5. 99%

Solution:

Employees who consume only espresso

$= 95 - (15 + 30 + 25) = 25$

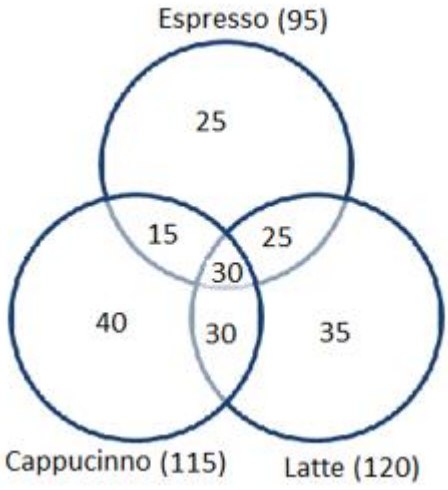
Employees who consume only cappuccino

$= 100 - (25 + 35) = 40$

Employees who consume latte & cappuccino both

$= 200 - (25 + 15 + 40 + 25 + 30 + 35)$

$= 30$



Employees who consume cappucinno =40+30+30+15=115

Employees who consume latte=30+30+25+35=120

Required % = $\frac{115}{120} \times 100 = 95.83\% \approx 96\%$

68)What is the ratio of employees consuming only espresso to employees consuming cappuccino & latte both?

68)केवल एस्प्रेसो का सेवन करने वाले कर्मचारियों तथा कैपेचीनो और लैट्टे दोनों का सेवन करने वाले कर्मचारियों का अनुपात कितना है?

1. 5:6

2. 5:8

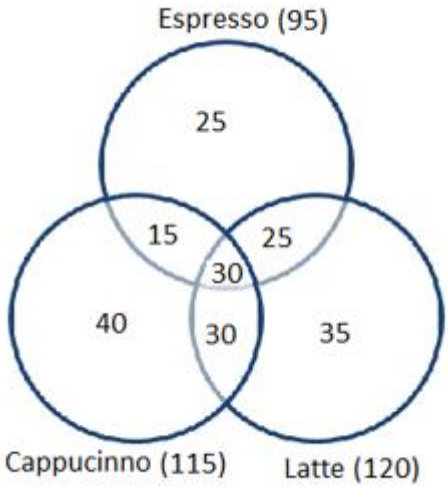
3. 3:4

4. 6:5

5. 8:5

Solution:

Employees who consume only espresso
$= 95 - (15 + 30 + 25) = 25$
Employees who consume only cappuccino
$= 100 - (25 + 35) = 40$
Employees who consume latte & cappuccino both
$= 200 - (25 + 15 + 40 + 25 + 30 + 35)$
$= 30$



required ratio = 25: 30 = 5: 6

69)What is the total no. of employees that consumes more than one drink?
69)एक से अधिक पेय का सेवन करने वाले कर्मचारियों की संख्या कितनी है?

1. 90

2. 110

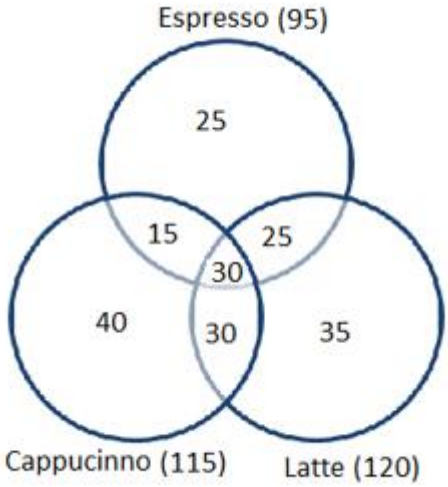
3. 80

4. 95

5. 100

Solution:

Employees who consume only espresso
$= 95 - (15 + 30 + 25) = 25$
Employees who consume only cappuccino
$= 100 - (25 + 35) = 40$
Employees who consume latte & cappuccino both
$= 200 - (25 + 15 + 40 + 25 + 30 + 35)$
$= 30$



required number of employee $= 15 + 30 + 25 + 30 = 100$

70)Average no. of employees consuming only espresso & only latte are how much more/less than average no. of employees consuming cappuccino & latte both and all 3 drinks?
70)केवल एस्प्रेसो और केवल लैट्टे का उपभोग करने वाले कर्मचारियों की औसत संख्या, कैपेचीनो और लैट्टे दोनों और सभी 3 पेय का सेवन करने वाले कर्मचारियों की संख्या से कितनी अधिक/कम है?

1. 2.5

2. 0

3. 5

4. 7.5

5. 10

Solution:

Employees who consume only espresso

$= 95 - (15 + 30 + 25) = 25$

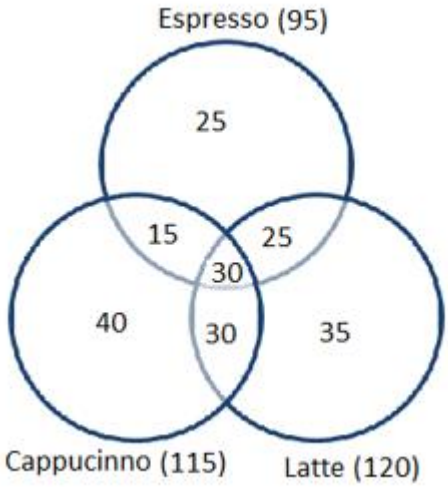
Employees who consume only cappuccino

$= 100 - (25 + 35) = 40$

Employees who consume latte & cappuccino both

$= 200 - (25 + 15 + 40 + 25 + 30 + 35)$

$= 30$



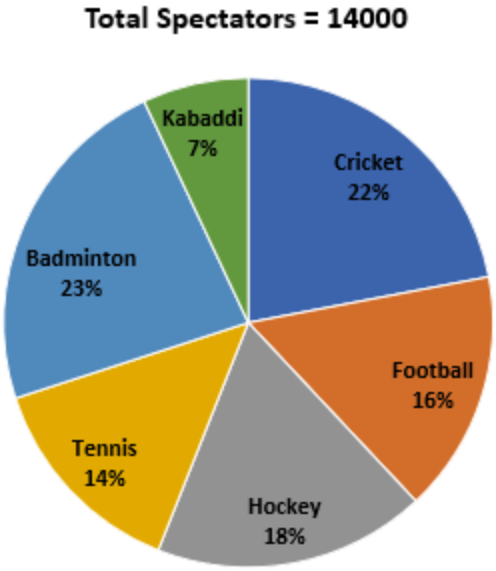
required answer $= \frac{25+35}{2} - \frac{30+30}{2} = 0$

Data Interpretation

Direction(71-75):Study the charts given below carefully and answer the following questions.
Direction(71-75):नीचे दिए गए चार्ट का ध्यानपूर्वक अध्ययन करें और निम्नलिखित प्रश्नों के उत्तर दें।

Pie chart shows the percentage distribution of total Spectators of a particular city loving different sports as shown below.
जैसा कि नीचे पाई चार्ट में दिखाया गया है, वह एक विशेष शहर के कुल दर्शकों के प्रतिशत वितरण को दर्शाता है जो

विभिन्न खेलों को पसंद करते हैं।



71)Total spectators of Badminton and kabaddi together is what percentage of total spectators of cricket and hockey together?
71)बैडमिंटन और कबड्डी को मिलाकर कुल दर्शक, क्रिकेट और हॉकी को मिलाकर कुल दर्शकों का कितना प्रतिशत है?

1. 70%

2. 75%

3. 80%

4. 65%

5. 60%

Solution:

Total spectators of Badminton and kabaddi together

$=14000\times\frac{23}{100}+14000\times\frac{7}{100}$

$=3220+980$

$=4200$

Total spectators of cricket and hockey together

$=14000\times\frac{22}{100}+14000\times\frac{18}{100}$

$=3080+2520$

$=5600$

Required percentage$=\frac{4200}{5600}\times 100$

$=75\%$

72)Find the ratio of total spectators of Football and tennis together to the total spectators of Cricket?
72)फुटबॉल और टेनिस के कुल दर्शकों तथा क्रिकेट के कुल दर्शकों से अनुपात ज्ञात कीजिये?

1. 17:12

2. 11:15

3. 15:11

4. 12:17

5. 13:18

Solution:

Total spectators of Football and tennis together

$=14000\times\frac{16}{100}+14000\times\frac{14}{100}$

$=2240+1960$

$=4200$

Total spectators of Cricket $=14000\times\frac{22}{100}=3080$

Required ratio $=\frac{4200}{3080}$

$=15:11$

73)Find the central angle of total spectators of badminton and tennis together?

73)बैडमिंटन और टेनिस के कुल दर्शकों का एक साथ केंद्रीय कोण ज्ञात कीजिए?

1. 79.2˚

2. 136.8˚

3. 115.2˚

4. 126˚

5. 133.2˚

Solution:

central angle of total spectators of badminton and tennis together

$=(23+14)\times\frac{360}{100}$

$=133.2^{\circ}$

74)Out of total hockey spectators, male and female lovers are in the ratio 9: 6 respectively, then find difference between male and female spectators of hockey?
74)हॉकी के कुल दर्शकों में से पुरुष और महिला दर्शकों का अनुपात क्रमश: 9:6 है, तो हॉकी के पुरुष और महिला दर्शकों के बीच अंतर ज्ञात कीजिए?

1. 524

2. 484

3. 336

4. 504

5. 472

Solution:

Total male spectators of hockey $=14000\times\frac{18}{100}\times\frac{9}{15}$
$=1512$
Total female spectators of hockey $=14000\times\frac{18}{100}\times\frac{6}{15}$
$=1008$
Required difference=1512-1008
=504

75)Total spectators of cricket and football together is how much more/less than total spectators of badminton and tennis together?
75)क्रिकेट और फुटबॉल के कुल दर्शक, बैडमिंटन और टेनिस के कुल दर्शकों से कितने अधिक/कम हैं?

1. 160

2. 140

3. 180

4. 200

5. None of these

Solution:

Total spectators of cricket and football together $=14000\times\frac{22}{100}+14000\times\frac{16}{100}$
$=3080+2240$
$=5320$
Total spectators of badminton and tennis together $=14000\times\frac{23}{100}+14000\times\frac{14}{100}$
$=3220+1960$
$=5180$
Required difference$=5320-5180=140$

Simplification and Approximation

Direction(76-80):What approximate value should come in the place of question (?) mark in following questions.

Direction(76-80):निम्नलिखित प्रश्नों में प्रश्नचिह्न (?) के स्थान पर लगभग क्या मान आना चाहिए?

76)

$32.04 \times 14.99 - 11.99 \times 87.98 + (50.01)^2 = ?$

1. 2020

2. 1924

3. 1832

4. 2220

5. 1936

Solution:

$? = 32 \times 15 - 12 \times 88 + (50)^2$

$= 480 - 1056 + 2500$

$= 1924$

77)

$7.99^3 \times 2.99^4 \div 11.98^2 + ?^2 = 17.03^2$

1. 14

2. 19

3. 1

4. 8

5. 4

Solution:

$8^3 \times 3^4 \div 12^2 + (?)^2 = 17^2$

Or, $\frac{4^3 \times 2^3 \times 3^4}{4^2 \times 3^2} + (?)^2 = 289$

or, $288 + (?)^2 = 289$

or, $(?)^2 = 1$

$(?)^2 = 1^2$

or, $? = 1$

78)

252.03 + 519.99 ÷ 19.93 + 420.06 = 121.09 + ?

1. 587

2. 577

3. 527

4. 477

5. 627

Solution:

$252 + 26 + 420 = 121 + ?$
$? = 577$

79)

$124.99\ \%\ of\ 85.99 \div 43.02 \times 32.03 \div 7.99 = ? \times \sqrt{24.97}$

1. 8

2. 18

3. 5

4. 2

5. 12

Solution:

$\frac{125}{100} \times \frac{86}{43} \times \frac{32}{8} = ? \times 5$
$10 = ? \times 5$
$? = 2$

80)

$127.98 + 15.03\ \%\ \text{of}\ ? = (4.99)^3 + 29.99$

1. 160

2. 220

3. 200

4. 180

5. 196

Solution:

$128 + \frac{15}{100} \times ? = 125 + 30$

$\frac{15}{100} \times ? = 155 - 128$

$\frac{15}{100} \times ? = 27$

$? = \frac{27}{15} \times 100$

$? = 180$