

Freshersnow PO mockt test

Reasoning

Seating Arrangement

Direction(1-5): Study the following information carefully and answer the questions given below.

A certain number of persons are sitting in a row facing north. Q sits fifth to the right of V. Three persons sit between V and A. S sits fifth to the left of A. Only one person sit between V and D. X sits third to the right of D. Only three persons sit between X and C. Q is third from the right end. Only six persons sit between P and T. P is an immediate neighbour of X. S is not the immediate neighbor of D.

निम्नलिखित जानकारी का ध्यानपूर्वक अध्ययन कीजिये और नीचे दिए गए प्रश्नों के उत्तर दीजिये। एक निश्चित संख्या में व्यक्ति उत्तर की ओर उन्मुख होकर एक पंक्ति में बैठे हैं। Q, V के दायें से पांचवें स्थान पर बैठा है। V और A के बीच तीन व्यक्ति बैठे हैं। S, A के बायें से पांचवें स्थान पर बैठा है। V और D के बीच केवल एक व्यक्ति बैठा है। X, D के दायें से तीसरे स्थान पर बैठा है। X और C के बीच केवल तीन व्यक्ति बैठे हैं। Q दायें छोर से तीसरे स्थान पर है। P और T के बीच केवल छह व्यक्ति बैठे हैं। P, X का निकटतम पड़ोसी है। S, D का निकटतम पड़ोसी नहीं है।

1) If S is at the extreme left end, then how many persons are sitting in the row?

1) यदि S अंतिम बायें छोर पर है, तो पंक्ति में कितने व्यक्ति बैठे हैं?

1. 11

2. 17

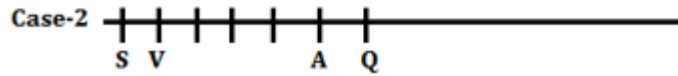
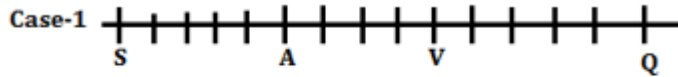
3. 13

4. 14

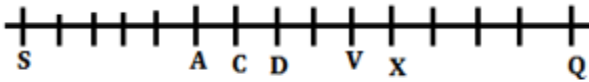
5. 12

Solution:

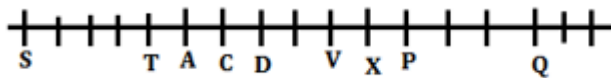
From the given statements, Q sits fifth to the right of V. Three person sit between V and A. S sits fifth to the left of A. We get 2 possible cases – Case 1 and Case 2.



Only one person sit between V and D. X sits third to the right of D. S is not the immediate neighbor of D. So, from this condition case-2 is eliminated.



Only three persons sit between X and C. Q is third from the right end. Only six persons sit between P and T. P is an immediate neighbour of X. So, the final arrangement is-

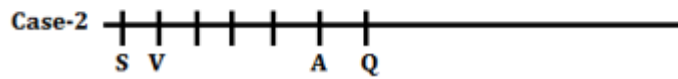
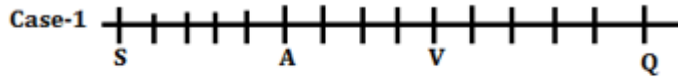


2) If B sits exactly between T and S, then what is the position of B with respect to A?
 2) यदि B, T और S के ठीक बीच में बैठा है, तो A के सन्दर्भ में B का स्थान क्या है?

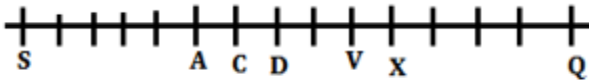
1. Third to the left
बायें से तीसरा
2. Third to the right
दायें से तीसरा
3. Second to the left
बायें से दूसरा
4. Fourth to the right
दायें से चौथा
5. None of these
इनमें से कोई नहीं

Solution:

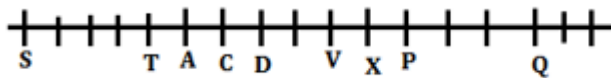
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Only one person sit between V and D. X sits third to the right of D. S is not the immediate neighbor of D. So, from this condition case-2 is eliminated.



Only three persons sit between X and C. Q is third from the right end. Only six persons sit between P and T. P is an immediate neighbour of X. So, the final arrangement is-

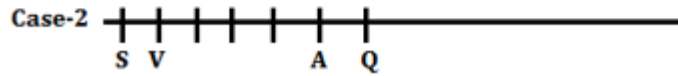
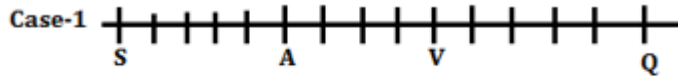


3) How many persons sit between S and the one who sits immediate left of X?
 3) S और X के ठीक बायें बैठे व्यक्ति के मध्य कितने व्यक्ति बैठे हैं?

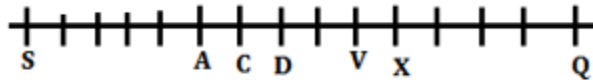
1. Nine
नौ
2. Seven
सात
3. Eight
आठ
4. Ten
दस
5. None of these
इनमें से कोई नहीं

Solution:

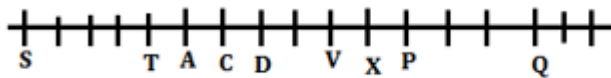
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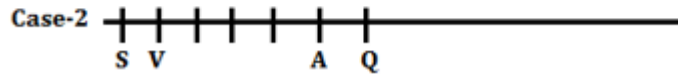
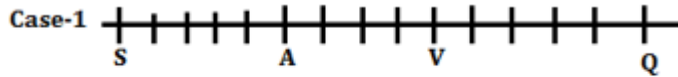


4) If R sits third to the left of S, then how many persons are sitting between R and D?
 4) यदि R, S के बायें से तीसरे स्थान पर बैठा है, तो R और D के मध्य कितने व्यक्ति बैठे हैं?

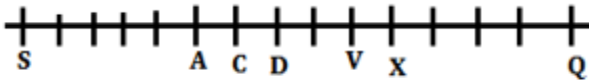
1. Twelve
बारह
2. Ten
दस
3. Fifteen
पंद्रह
4. Nine
नौ
5. None of these
इनमें से कोई नहीं

Solution:

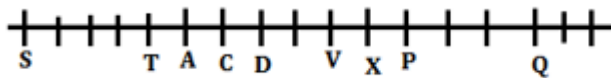
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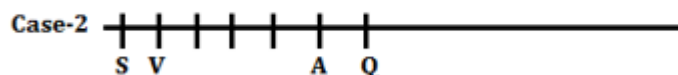
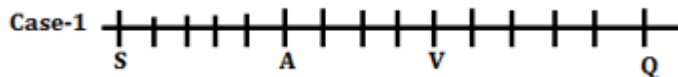


5) Who among the following is fifth to the right of A?
 5) निम्नलिखित में से कौन A के दायें से पांचवें स्थान पर है?

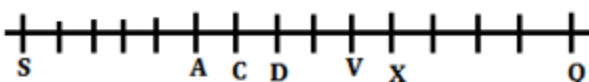
1. S
2. P
3. R
4. X
5. Q

Solution:

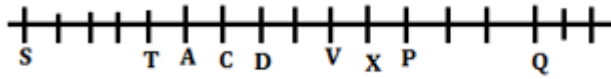
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Only one person sit between V and D. X sits third to the right of D. S is not the immediate neighbor of D. So, from this condition case-2 is eliminated.



Only three persons sit between X and C. Q is third from the right end. Only six persons sit between P and T. P is an immediate neighbour of X. So, the final arrangement is-



Syllogism

Direction(6-10):In each question below are given two/three statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements, disregarding commonly known facts. Give answer-

Direction(6-10):नीचे दिए गए प्रत्येक प्रश्न में दो/तीन कथन दिए गए हैं जिसके बाद दो निष्कर्ष I और II दिए गए हैं। आपको दिए गए कथनों को सत्य मानना है, भले ही वे सर्वज्ञात तथ्यों से भिन्न प्रतीत होते हों। सभी निष्कर्षों को पढ़िए और फिर तय कीजिये कि दिए गए निष्कर्षों में से कौन सा निष्कर्ष सामान्य रूप से ज्ञात तथ्यों की परवाह किए बिना दिए गए कथनों का तार्किक रूप से अनुसरण करता है। उत्तर दीजिये-

6)

Statements:

Some prime are consonant.

All consonant are cup.

No cup is a cap.

Conclusions:

I. Some consonant being cap is a possibility.

II. All cup being prime is a possibility.

6)

कथन:

कुछ अभाज्य व्यंजन हैं।

सभी व्यंजन कप हैं।

कोई कप कैप नहीं है।

निष्कर्ष:

I. कुछ व्यंजन के कैप होने की संभावना है।

II. सभी कप के अभाज्य होने की संभावना है।

1. if only conclusion I follows.

यदि केवल निष्कर्ष I अनुसरण करता है।

2. if only conclusion II follows.

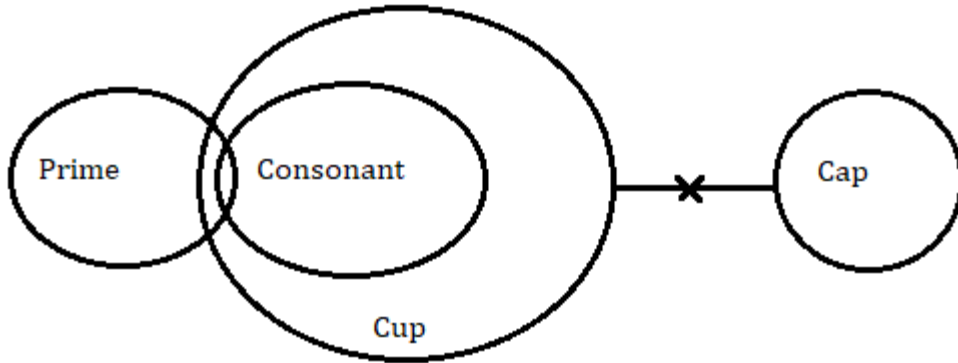
यदि केवल निष्कर्ष II अनुसरण करता है।

3. if either conclusion I or II follows.
यदि या तो निष्कर्ष I या II अनुसरण करता है।

4. if neither conclusion I nor II follows,
यदि न तो निष्कर्ष I और न ही II अनुसरण करता है,

5. if both conclusions I and II follow.
यदि निष्कर्ष I और II दोनों अनुसरण करते हैं।

Solution:



7)

Statements:

Some prime are consonant.

All consonant are cups.

No cup is a cap.

Conclusions:

I. No cap is consonant.

II. Some prime are not caps.

7)

कथन:

कुछ अभाज्य व्यंजन हैं।

सभी व्यंजन कप हैं।

कोई कप कैप नहीं है।

निष्कर्ष:

I. कोई कैप व्यंजन नहीं है।

II. कुछ अभाज्य कैप नहीं है।

1. if only conclusion I follows.

यदि केवल निष्कर्ष I अनुसरण करता है।

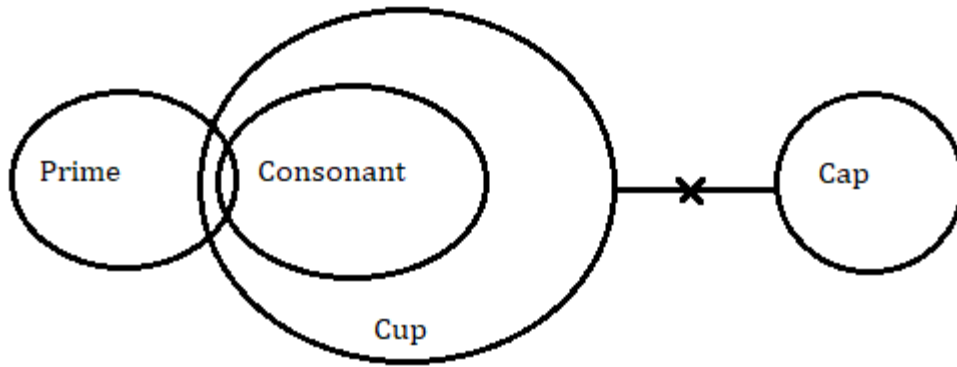
2. if only conclusion II follows.
यदि केवल निष्कर्ष II अनुसरण करता है।

3. if either conclusion I or II follows.
यदि या तो निष्कर्ष I या II अनुसरण करता है।

4. if neither conclusion I nor II follows,
यदि न तो निष्कर्ष I और न ही II अनुसरण करता है,

5. if both conclusions I and II follow.
यदि निष्कर्ष I और II दोनों अनुसरण करते हैं।

Solution:



8)

Statements:

All number is digits.

No digit is a numeric.

Conclusions:

I. Some number is not numeric.

II. No number is a numeric.

8)

कथन:

सभी संख्या अंक हैं।

कोई अंक सांख्यिक नहीं है।

निष्कर्ष:

I. कुछ कुछ सांख्यिक नहीं है।

II. कोई संख्या सांख्यिक नहीं है।

1. if only conclusion I follows.

यदि केवल निष्कर्ष I अनुसरण करता है।

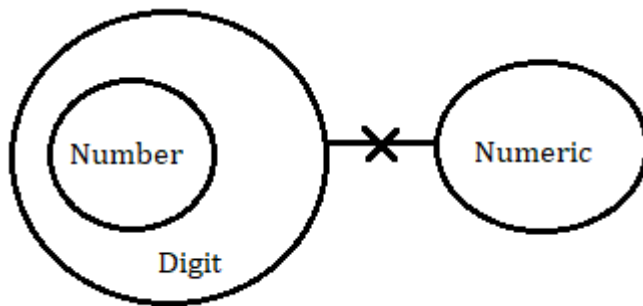
2. if only conclusion II follows.
यदि केवल निष्कर्ष II अनुसरण करता है।

3. if either conclusion I or II follows.
यदि या तो निष्कर्ष I या II अनुसरण करता है।

4. if neither conclusion I nor II follows,
यदि न तो निष्कर्ष I और न ही II अनुसरण करता है,

5. if both conclusions I and II follow.
यदि निष्कर्ष I और II दोनों अनुसरण करते हैं।

Solution:



9)

Statements:

No foil is a wrap.

Some wraps are tabs.

Conclusions:

I. Some tabs are not foils.

II. All foil being tabs is a possibility.

9)

कथन:

कोई फॉयल रैप नहीं है। कुछ रैप टैब हैं।

निष्कर्ष:

I. कुछ टैब फॉयल नहीं हैं।

II. सभी फॉयल के टैब होने की संभावना है।

1. if only conclusion I follows.
यदि केवल निष्कर्ष I अनुसरण करता है।

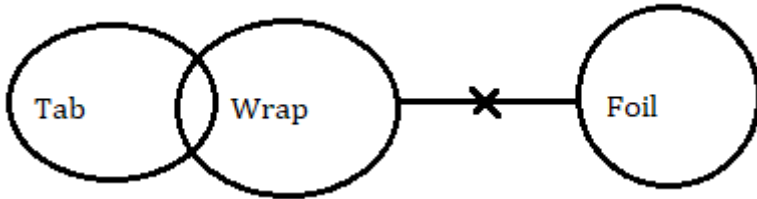
2. if only conclusion II follows.
यदि केवल निष्कर्ष II अनुसरण करता है।

3. if either conclusion I or II follows.
यदि या तो निष्कर्ष I या II अनुसरण करता है।

4. if neither conclusion I nor II follows,
यदि न तो निष्कर्ष I और न ही II अनुसरण करता है,

5. if both conclusions I and II follow.
यदि निष्कर्ष I और II दोनों अनुसरण करते हैं।

Solution:



10)

Statements:

Some box are book.

All book are pencils.

Conclusions:

I. All box being pencils is a possibility.

II. Some pencils are books

10)

कथन:

कुछ बॉक्स बुक हैं। सभी बुक पेंसिल हैं।

निष्कर्ष:

I. सभी बॉक्स के पेंसिल होने की संभावना है।

II. कुछ पेंसिल बुक हैं

1. if only conclusion I follows.

यदि केवल निष्कर्ष I अनुसरण करता है।

2. if only conclusion II follows.

यदि केवल निष्कर्ष II अनुसरण करता है।

3. if either conclusion I or II follows.

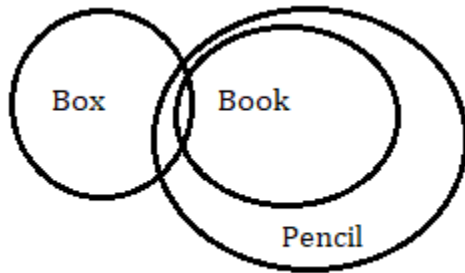
यदि या तो निष्कर्ष I या II अनुसरण करता है।

4. if neither conclusion I nor II follows,

यदि न तो निष्कर्ष I और न ही II अनुसरण करता है,

5. if both conclusions I and II follow.
यदि निष्कर्ष I और II दोनों अनुसरण करते हैं।

Solution:



Coding & Decoding

Direction(11-15): Study the following information carefully and answer the questions given below:

In a certain code language:

Direction(11-15): निम्नलिखित जानकारी का ध्यानपूर्वक अध्ययन करें और नीचे दिए गए प्रश्नों के उत्तर दें:

एक निश्चित कोड भाषा में:

“home bank are available” is coded as “kb pb cn tc”

“home bank are available” को “kb pb cn tc” के रूप में कूटबद्ध किया गया है

“think near freedom” is coded as “og xp mp”

“think near freedom” को “og xp mp” के रूप में कूटबद्ध किया गया है

“bank near home” is coded as “cn kb og”

“bank near home” को “cn kb og” के रूप में कूटबद्ध किया गया है

“think near are bank” is coded as “kb pb og xp”

“think near are bank” को “kb pb og xp” के रूप में कूटबद्ध किया गया है

11) What is the code for “home are available” in the given code language?

11) दी गई कूट भाषा में “home are available” के लिए क्या कूट है?

1. cn pb xp
2. tc pb mp
3. cn kb pb
4. tc pb cn
5. None of these
इनमें से कोई नहीं

Solution:

Words	Code
home	cn
bank	kb
are	pb
think	xp
freedom	mp
near	og
available	tc

12)What is the code for “near” in the given code language?
12)दी गई कूट भाषा में “Near” के लिए क्या कूट है?

1. xp
2. og
3. tc
4. mp
5. kb

Solution:

Words	Code
home	cn
bank	kb
are	pb
think	xp
freedom	mp
near	og
available	tc

13)What is the code for “home bank” in the given code language?

13)दी गई कूट भाषा में “home bank” के लिए क्या कूट है?

1. cn kb
2. og cn
3. tc pb
4. mp xp
5. None of these
इनमें से कोई नहीं

Solution:

Words	Code
home	cn
bank	kb
are	pb
think	xp
freedom	mp
near	og
available	tc

14)If “we think new” is coded as “xp rw qs” then what may be the code for “we new near” in a certain code language?

14)यदि “we Think new” को “xp rw qs” के रूप में कूटबद्ध किया जाता है, तो एक निश्चित कूट भाषा में “we new near” के लिए क्या कूट हो सकता है?

1. rw xp mp
2. qs kb og
3. qs rw og
4. og tc qs

5. Can't be determined
निर्धारित नहीं किया जा सकता

Solution:

Words	Code
home	cn
bank	kb
are	pb
think	xp
freedom	mp
near	og
available	tc

15) What is the code for "available are near" in the given code language?

15) दी गई कूट भाषा में "available are near" के लिए क्या कूट है?

1. tc og xp

2. og tc cn

3. Either (a) or (b)

या तो (a) या (b)

4. mp og tc

5. tc pb og

Solution:

Words	Code
home	cn
bank	kb
are	pb
think	xp
freedom	mp
near	og
available	tc

Puzzles

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

Seven students B, C, D, K, M, O and P take coaching classes on different days of the same week from Monday to Sunday but not necessarily in the same order.

Two students take classes between O and P. Only one student takes class between D and P. P takes class Either Tuesday or Wednesday. More than three students take classes between B and M. K takes class just before C's class. No one takes class between M and O.

Direction (16-20) :

निम्नलिखित जानकारी का ध्यानपूर्वक अध्ययन कीजिये और नीचे दिए गए प्रश्नों के उत्तर दीजिये:

सात छात्र B, C, D, K, M, O और P सोमवार से रविवार तक एक ही सप्ताह के अलग-अलग दिनों में कोचिंग लेते हैं लेकिन जरूरी नहीं कि इसी क्रम में हों।

O और P के बीच दो छात्र कक्षा लेते हैं। D और P के बीच केवल एक छात्र कक्षा लेता है। P या तो मंगलवार या बुधवार को कक्षा लेता है। B और M के बीच तीन से अधिक छात्र कक्षा लेते हैं। K, C की कक्षा से ठीक पहले कक्षा लेता है। M और O के बीच कोई भी कक्षा नहीं लेता है।

16) Who among the following takes the class on Friday?

16) निम्नलिखित में से कौन शुकवार को कक्षा लेता है?

- a) B
- b) D
- c) C
- d) M
- e) None of these
इनमें से कोई नहीं

Solution:

From the given statements, P takes class either Tuesday or Wednesday. Only one student takes class between D and P. Here we get 3 possibilities i.e., Case 1, Case 2 and Case 3. Two students take classes between O and P. More than three students take classes between B and M. No one takes class between M and O.

Days	Case 1	Case 2	Case 3
	Students	Students	Students
Monday	B	D	B/
Tuesday	P	B	B/
Wednesday		P	P
Thursday	D		
Friday	O		D
Saturday	M	O	O
Sunday		M	M

From the given statements, K takes class just before C's class. From this condition Case 1 and Case 3 are ruled out now. So, the final arrangement is –

Days	Students
Monday	D
Tuesday	B
Wednesday	P
Thursday	K
Friday	C
Saturday	O
Sunday	M

17) How many students take classes between O and D?
17) O और D के मध्य कितने छात्र कक्षाएँ लेते हैं?

- a) Five
पांच
- b) Three
तीन
- c) Four
चार
- d) One
एक
- e) None
कोई नहीं

Solution:

From the given statements, P takes class either Tuesday or Wednesday. Only one student takes class between D and P. Here we get 3 possibilities i.e., Case 1, Case 2 and Case 3. Two students take classes between O and P. More than three students take classes between B and M. No one takes class between M and O.

Days	Case 1	Case 2	Case 3
	Students	Students	Students
Monday	B	D	B/
Tuesday	P	B	B/
Wednesday		P	P
Thursday	D		
Friday	O		D
Saturday	M	O	O
Sunday		M	M

From the given statements, K takes class just before C's class. From this condition Case 1 and Case 3 are ruled out now. So, the final arrangement is –

Days	Students
Monday	D
Tuesday	B
Wednesday	P
Thursday	K
Friday	C
Saturday	O
Sunday	M

18) If all the students are arranged in alphabetical order from Monday to Sunday, then find how many students remain in the same position?

18) यदि सभी छात्रों को सोमवार से रविवार तक वर्णानुक्रम में व्यवस्थित किया जाता है, तो ज्ञात कीजिए कि कितने छात्र समान स्थान में रहते हैं?

- a) 5
- b) 1
- c) 3
- d) 2
- e) None of these
इनमें से कोई नहीं

Solution:

From the given statements, P takes class either Tuesday or Wednesday. Only one student takes class between D and P. Here we get 3 possibilities i.e., Case 1, Case 2 and Case 3. Two students take classes between O and P. More than three students take classes between B and M. No one takes class between M and O.

Days	Case 1	Case 2	Case 3
	Students	Students	Students
Monday	B	D	B/
Tuesday	P	B	B/
Wednesday		P	P
Thursday	D		
Friday	O		D
Saturday	M	O	O
Sunday		M	M

From the given statements, K takes class just before C's class. From this condition Case 1 and Case 3 are ruled out now. So, the final arrangement is –

Days	Students
Monday	D
Tuesday	B
Wednesday	P
Thursday	K
Friday	C
Saturday	O
Sunday	M

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)

निम्नलिखित पांच में से चार एक निश्चित तरीके से एक समान हैं और इसलिए वे एक समूह बनाते हैं। निम्नलिखित में से कौन सा एक उस समूह से संबंधित नहीं है?

- a) D-K
- b) O-M
- c) C-B
- d) P-O
- e) M-K

Solution:

From the given statements, P takes class either Tuesday or Wednesday. Only one student takes class between D and P. Here we get 3 possibilities i.e., Case 1, Case 2 and Case 3. Two students take classes between O and P. More than three students take classes between B and M. No one takes class between M and O.

Days	Case 1	Case 2	Case 3
	Students	Students	Students
Monday	B	D	B/
Tuesday	P	B	B/
Wednesday		P	P
Thursday	D		
Friday	O		D
Saturday	M	O	O
Sunday		M	M

From the given statements, K takes class just before C's class. From this condition Case 1 and Case 3 are ruled out now. So, the final arrangement is –

Days	Students
Monday	D
Tuesday	B
Wednesday	P
Thursday	K
Friday	C
Saturday	O
Sunday	M

20) Which of the following statement is true as per the given information?

20) दी गई जानकारी के अनुसार निम्नलिखित में से कौन सा कथन सत्य है?

- B takes class after K
B, K के बाद कक्षा लेता है
- Only one day gap between O and C
O और C के बीच केवल एक दिन का अंतर
- K takes classes on Monday
K सोमवार को कक्षा लेता है
- Both (a) and (c) true
दोनों (a) और (c) सत्य हैं
- None is true
इनमें से कोई नहीं

Solution:

From the given statements, P takes class either Tuesday or Wednesday. Only one student takes class between D and P. Here we get 3 possibilities i.e., Case 1, Case 2 and Case 3. Two students take classes between O and P. More than three students take classes between B and M. No one takes class between M and O.

Days	Case 1	Case 2	Case 3
	Students	Students	Students
Monday	B	D	B/
Tuesday	P	B	B/
Wednesday		P	P
Thursday	D		
Friday	O		D
Saturday	M	O	O
Sunday		M	M

From the given statements, K takes class just before C's class. From this condition Case 1 and Case 3 are ruled out now. So, the final arrangement is –

Days	Students
Monday	D
Tuesday	B
Wednesday	P
Thursday	K
Friday	C
Saturday	O
Sunday	M

Seating Arrangement

Direction (21-24) : Study the following information carefully and answer the questions given below-

Eight persons i.e., J, K, L, M, N, O, P and Q are seated around a circular table but not necessarily in the same order. Equal number of persons are facing inside and outside from the table.

J sits third to the right of M. There are two persons sit between M and P. K and N faces each other. L sits second to the right of N, who sits immediate right of J. O is not an immediate neighbour of N. None of the immediate neighbours are facing the same directions.

Direction (21 to 24) : निम्नलिखित जानकारी का ध्यानपूर्वक अध्ययन करें और नीचे दिए गए प्रश्नों के उत्तर दें-
आठ व्यक्ति अर्थात्, J, K, L, M, N, O, P और Q एक वृत्ताकार मेज के चारों ओर बैठे हैं,

लेकिन जरूरी नहीं कि इसी क्रम में हों। समान संख्या में व्यक्ति मेज के अंदर और बाहर की ओर उन्मुख हैं।

J, M के दायें से तीसरे स्थान पर बैठा है। M और P के बीच दो व्यक्ति बैठे हैं। K और N एक दूसरे की ओर उन्मुख हैं।

L, N के दायें से दूसरे स्थान पर बैठा है, जो J के ठीक दायें बैठा है। O, N

का निकटतम पड़ोसी नहीं है। कोई भी निकटतम पड़ोसी समान दिशाओं की ओर उन्मुख नहीं है।

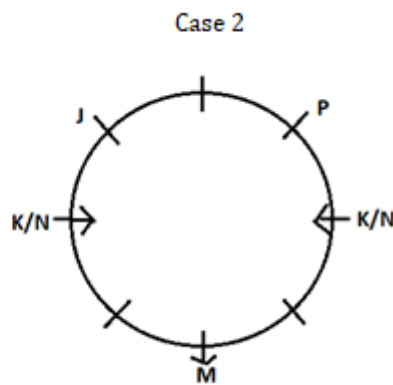
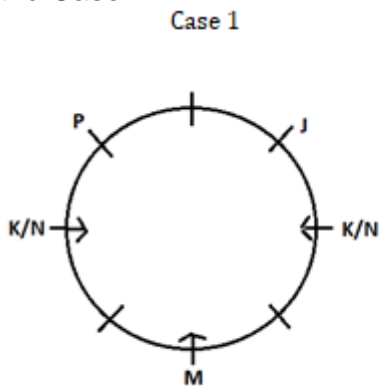
21) How many persons sit between M and L?

21) M और L के मध्य कितने व्यक्ति बैठे हैं?

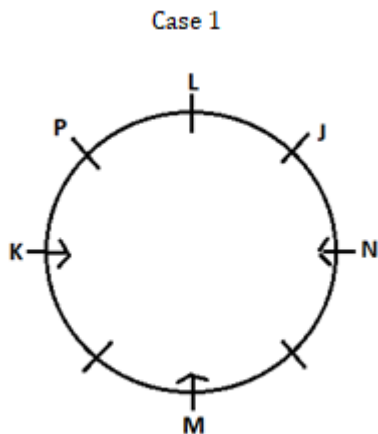
- a) One
एक
- b) Two
दो
- c) Three
तीन
- d) Four
चार
- e) None
कोई नहीं

Solution:

From the given statements, J sits third to the right of M. There are two persons sitting between M and P. K and N faces each other. Here we get 2 possible cases – Case 1 and Case 2.

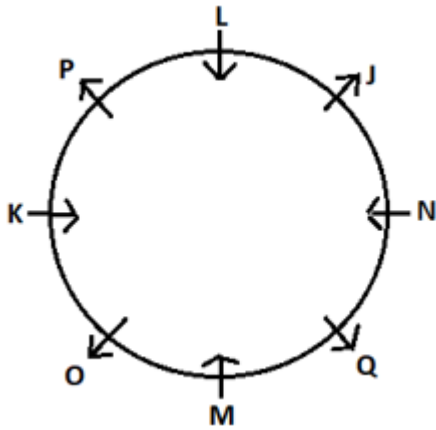


L is second to the right of N, who sits immediate right of J. Hence Case 2 gets cancelled.



O is not an immediate neighbour of N. None of the immediate neighbours are facing the

same directions. So, final arrangement will be,



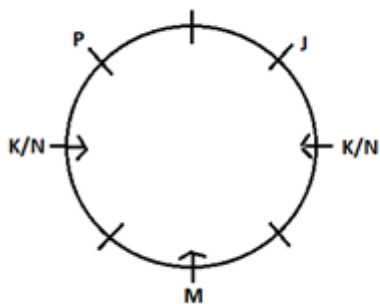
22) Who among the following sits third to the left of J?
 22) निम्नलिखितमेंसेकौन J केबायेंसेतीसरेस्थानपरबैठाहै?

- a) Q
- b) K
- c) L
- d) M
- e) None of these
 इनमेंसेकोईनहीं

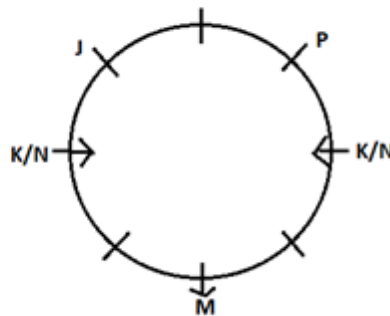
Solution:

From the given statements, J sits third to the right of M. There are two persons sitting between M and P. K and N faces each other. Here we get 2 possible cases – Case 1 and Case 2.

Case 1

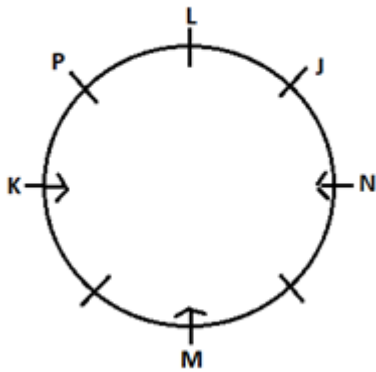


Case 2

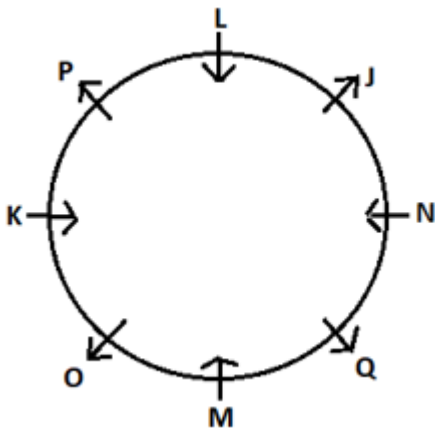


L is second to the right of N, who sits immediate right of J. Hence Case 2 gets cancelled.

Case 1



O is not an immediate neighbour of N. None of the immediate neighbours are facing the same directions. So, final arrangement will be,



23) Who among the following are immediate neighbours of both O and Q?

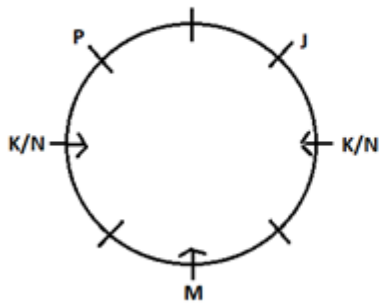
23) निम्नलिखितमेंसेकौन O और Q दोनोंकानिकटतमपड़ोसीहै?

- a) M
- b) N
- c) J
- d) P
- e) K

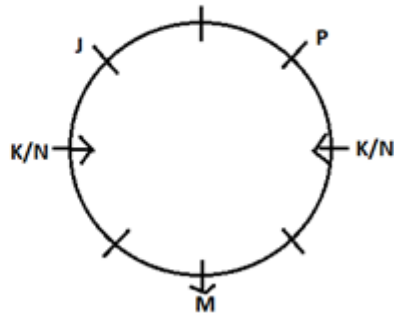
Solution:

From the given statements, J sits third to the right of M. There are two persons sitting between M and P. K and N faces each other. Here we get 2 possible cases – Case 1 and Case 2.

Case 1

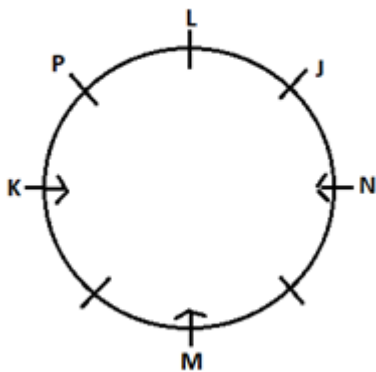


Case 2

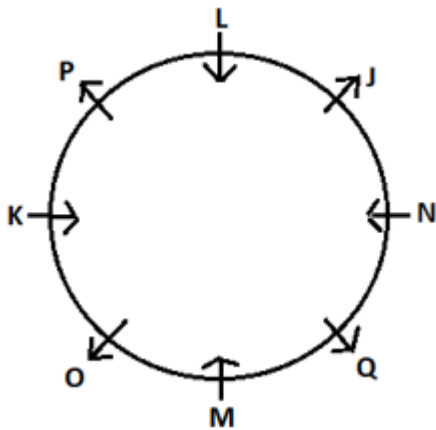


L is second to the right of N, who sits immediate right of J. Hence Case 2 gets cancelled.

Case 1



O is not an immediate neighbour of N. None of the immediate neighbours are facing the same directions. So, final arrangement will be,



24) Who among the following faces outside?

24) निम्नलिखितमेंसेकौनबाहरकीओरउन्मुखहै?

- a) M
- b) N
- c) L

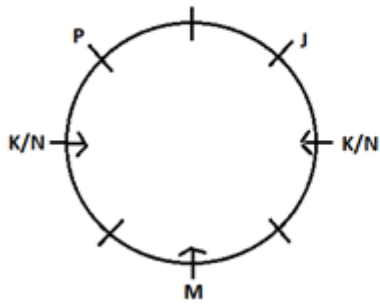
d) K

e) J

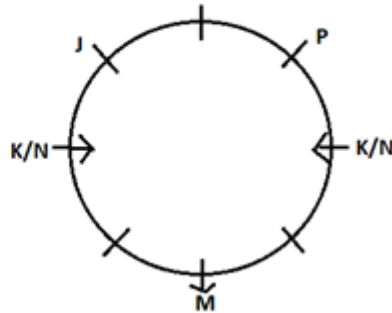
Solution:

From the given statements, J sits third to the right of M. There are two persons sitting between M and P. K and N faces each other. Here we get 2 possible cases – Case 1 and Case 2.

Case 1

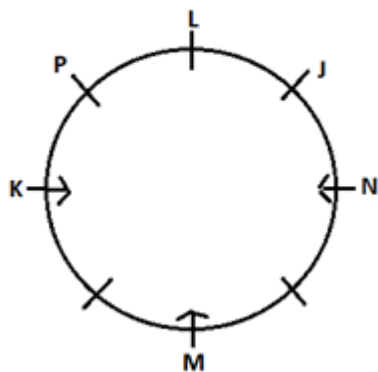


Case 2

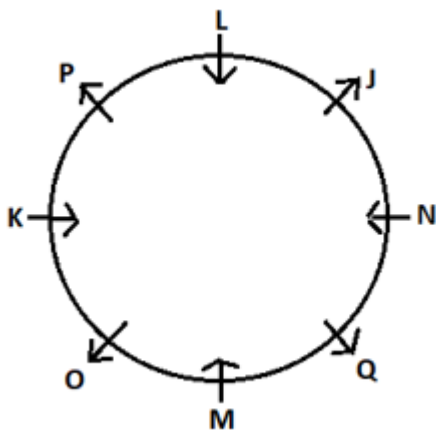


L is second to the right of N, who sits immediate right of J. Hence Case 2 gets cancelled.

Case 1



O is not an immediate neighbour of N. None of the immediate neighbours are facing the same directions. So, final arrangement will be,



Inequality

Direction(25-26):In these questions, relationship between different elements is show in the statements. The statements are followed by conclusions. Study the conclusions based on the given statements and select the appropriate answer:

Direction(25-26):□□ □□□□□□□□ □□□, □□□□□ □□□
□□□□□□□□ □□□□□□ □□ □□□ □□□□□□ □□□□□□ □□□
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□□□□□ □□ □□□□ □□□□□□ □□ □□□□ □□□□□:

25)

Statements □□□: $A > B \leq C = D \leq E, C \geq F = G$

Conclusions □□□□□□□□:

- I. $B \geq G$
- II. $E \geq G$

1. If only conclusion I follows.

□□□ □□□□ □□□□□□□□□ □□□□□□ □□□□ □□□

2. If only conclusion II follows.

□□□ □□□□ □□□□□□□□ □□□□□□ □□□□ □□□

3. If either conclusion I or II follows

□□□ □□ □□ □□□□□□□□ □□ □□ □□□□□□ □□□□ □□

4. If neither conclusion I nor II follows.

□□□ □ □□ □□□□□□□□ □□ □ □□ □□ □□□□□□ □□□□ □□□

5. If both conclusions I and II follow.

□□□ □□□□□□□□ □□ □□ □□□□ □□□□□□ □□□□ □□□□

Solution: $B \geq G$ (False)

II. $E \geq G$ (True)

26)

Statements □□□: $H \geq T > S \leq Q, T \geq U$

Conclusions: □□□□□□□□:

I. $U \leq H$

II. $S < H$

1. If only conclusion I follows.

□□□ □□□□ □□□□□□□□ | □□□□□□ □□□□ □□□

2. If only conclusion II follows.

□□□ □□□□ □□□□□□□□ || □□□□□□ □□□□ □□□

3. If either conclusion I or II follows

□□□ □□ □□ □□□□□□□□ | □□ || □□□□□□ □□□□ □□

4. If neither conclusion I nor II follows.

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5. If both conclusions I and II follow.

□□□ □□□□□□□□ | □□ || □□□□□ □□□□□□ □□□□ □□□□

Solution:I. $U \leq H$ (True)

II $S < H$ (True)

Puzzle

Direction (27- 31):Study the following information carefully to answer the given questions:

Seven boxes S, P, L, Q, R, M and I placed one above the other but not necessarily in the same order. The bottommost box is numbered as 1 and so in the topmost box is numbered as 7. Three boxes placed between I and M. Box M is placed below box I. No box is placed between box M and box S. Box S is placed at even number positions. Box Q is placed above box P and both are placed at an even position. No

box is placed between box P and box R, which is not placed at the bottommost position. Box L does not place at topmost position.

Direction(27-31): दिए गए प्रश्नों के उत्तर देने के लिए निम्नलिखित जानकारी का ध्यानपूर्वक अध्ययन कीजिये:

सात बॉक्स S, P, L, Q, R, M और I ने एक को दूसरे के ऊपर रखा गया है लेकिन आवश्यक नहीं इसी क्रम में हो। सबसे नीचे वाले बॉक्स की संख्या 1 है और इस प्रकार सबसे ऊपर वाले बॉक्स की संख्या 7 है। I और M के बीच तीन बॉक्स रखे गए हैं। बॉक्स M को बॉक्स I के नीचे रखा गया है। बॉक्स M और बॉक्स S के बीच कोई बॉक्स नहीं रखा गया है। बॉक्स S को सम संख्या के स्थान पर रखा गया है। बॉक्स Q को बॉक्स P के ऊपर रखा गया है और दोनों को एक सम स्थान पर रखा गया है। बॉक्स P और बॉक्स R के बीच कोई भी दो बॉक्स नहीं रखे गए हैं, जिसे सबसे निचले स्थान पर नहीं रखा गया है। बॉक्स L को सबसे ऊपरी स्थान पर नहीं रखा गया है।

27) Which box placed just above box M?

27) बॉक्स M के ठीक ऊपर कौन-सा बॉक्स रखा गया है?

1. L
2. P
3. Q
4. R
5. None of these
इनमें से कोई नहीं

Solution:

From the given statements, three boxes placed between I and M. Box M is placed below box I. No box is placed between box M and box S. Box S is placed at even number positions. Here we get 3 possible cases.

Number	Case 1	Case 2	Case 3
	Boxes	Boxes	Boxes
7	I	I	
6			
5			I
4		S	
3	M	M	
2	S		S
1			M

Box Q is placed above box P and both are placed at even position. No box is placed

between box P and box R, which is not placed at bottommost position. Box L does not place at topmost position. Here Case 2 and Case-3 are ruled out now. So, the final arrangement is-

Number	Box
7	I
6	Q
5	R
4	P
3	M
2	S
1	L

28)How many boxes placed between L and P?

28)L और P के मध्य कितने बॉक्स रखे गए हैं?

1. None

कोई नहीं

2. One

एक

3. Two

दो

4. Three

तीन

5. Can't be determined

निर्धारित नहीं किया जा सकता

Solution:

From the given statements, three boxes placed between I and M. Box M is placed below box I. No box is placed between box M and box S. Box S is placed at even number positions. Here we get 3 possible cases.

Number	Case 1	Case 2	Case 3
	Boxes	Boxes	Boxes
7	I	I	
6			
5			I
4		S	
3	M	M	
2	S		S
1			M

Box Q is placed above box P and both are placed at even position. No box is placed between box P and box R, which is not placed at bottommost position. Box L does not place at topmost position. Here Case 2 and Case-3 are ruled out now. So, the final arrangement is-

Number	Box
7	I
6	Q
5	R
4	P
3	M
2	S
1	L

29) Which of the following pairs of boxes placed on the bottom-most and the topmost place respectively?

29) निम्नलिखित में से कौन-से बॉक्स का युग्म क्रमशः सबसे नीचे और सबसे ऊपर वाले स्थान पर रखा गया है?

1. L, Q

2. Q, P

3. I, Q

4. L, I

5. Can't be determined

निर्धारित नहीं किया जा सकता

Solution:

From the given statements, three boxes placed between I and M. Box M is placed below box I. No box is placed between box M and box S. Box S is placed at even number positions. Here we get 3 possible cases.

Number	Case 1	Case 2	Case 3
	Boxes	Boxes	Boxes
7	I	I	
6			
5			I
4		S	
3	M	M	
2	S		S
1			M

Box Q is placed above box P and both are placed at even position. No box is placed between box P and box R, which is not placed at bottommost position. Box L does not place at topmost position. Here Case 2 and Case-3 are ruled out now. So, the final arrangement is-

Number	Box
7	I
6	Q
5	R
4	P
3	M
2	S
1	L

30) Which of the following box is placed on the topmost position?

30) निम्नलिखित में से कौन-सा बॉक्स सबसे ऊपरी स्थान पर रखा गया है?

1. I

2. Q

3. P

4. L

5. None of these

इनमें से कोई नहीं

Solution:

From the given statements, three boxes placed between I and M. Box M is placed below box I. No box is placed between box M and box S. Box S is placed at even number positions. Here we get 3 possible cases.

Number	Case 1	Case 2	Case 3
	Boxes	Boxes	Boxes
7	I	I	
6			
5			I
4		S	
3	M	M	
2	S		S
1			M

Box Q is placed above box P and both are placed at even position. No box is placed between box P and box R, which is not placed at bottommost position. Box L does not place at topmost position. Here Case 2 and Case-3 are ruled out now. So, the

final arrangement is-

Number	Box
7	I
6	Q
5	R
4	P
3	M
2	S
1	L

31) Which of the following combinations is true?

31) निम्नलिखित में से कौन सा संयोजन सत्य है?

1. 1-S

2. 4-R

3. 3-M

4. 6-I

5. None of these

इनमें से कोई नहीं

Solution:

From the given statements, three boxes placed between I and M. Box M is placed below box I. No box is placed between box M and box S. Box S is placed at even number positions. Here we get 3 possible cases.

Number	Case 1	Case 2	Case 3
	Boxes	Boxes	Boxes
7	I	I	
6			
5			I
4		S	
3	M	M	
2	S		S
1			M

Box Q is placed above box P and both are placed at even position. No box is placed between box P and box R, which is not placed at bottommost position. Box L does not place at topmost position. Here Case 2 and Case-3 are ruled out now. So, the final arrangement is-

Number	Box
7	I
6	Q
5	R
4	P
3	M
2	S
1	L

Puzzles

Direction (32-35) : Study the following information carefully and answer the questions given below:

Nine teachers i.e. A, B, C, D, L, M, N, O and P take lectures on different dates- 1st, 4th or 5th of the month- March, June and December but not necessarily in the same order. N takes lecture on an even date in the month which has 30 days. Two persons take lectures in between N and O. B takes lecture just before P but not in the same month. P does not take lecture before N. More than two persons take lectures between O and P. Both D and M take lectures in the same month. One person takes the lecture in between A and C. Not more than four persons take lectures in between C and D.

Direction (32-35) : निम्नलिखितजानकारीकाध्यानपूर्वकअध्ययनकरेंऔरनीचेदिएगएप्रश्नोंकेउत्तरदें:

नौशिक्षकअर्थात् A, B, C, D, L, M, N, O और P मार्च, जूनऔरदिसंबरकीअलग-अलगतिथि- 1, 4 या 5 कोव्याख्यानलेतेहैंलेकिनजरूरीनहींकिइसीक्रममेंहों।

N उसमहीनेमेंएकसमतिथिकोव्याख्यानलेताहैजिसमें 30 दिनहोतेहैं। N और O

केबीचमेंदोव्यक्तिव्याख्यानलेतेहैं। B, P सेठीकपहलेव्याख्यानलेताहैलेकिनसमानमहीनेमेंनहीं। P, N

सेपहलेव्याख्याननहींलेताहै। O और P केबीचदोसेअधिकव्यक्तिव्याख्यानलेतेहैं। D और M

दोनोंएकहीमहीनेमेंव्याख्यानलेतेहैं। A और C केबीचमेंएकव्यक्तिव्याख्यानलेताहै। C और D

केबीचमेंचारसेअधिकव्यक्तिव्याख्याननहींलेतेहैं।

32) How many teachers take lectures between L and D?

32) L और D केबीचकितनेशिक्षकव्याख्यानलेतेहैं?

- a) Two
दो
- b) One
एक
- c) Three
तीन
- d) Five
पांच
- e) None of these
इनमेंसेकोईनहीं

Solution:

From the given statements, N take lecture on an even date in the month which has 30 days. Two persons take lectures in between N and O. Here we have 2 possibilities i.e., Case 1 and Case 2. P does not take lecture before N. B takes lecture just before P but not in the same month.

Months	Dates	Case 1	Case 2
		Persons	Persons
March	1		
	4		O
	5		
June	1		
	4	N	N
	5	B	B
December	1	P	P
	4	O	
	5		

More than two persons take lectures between O and P. Now case 1 is ruled out. Both D and M take lectures in the same month. One person takes the lecture in between A and C. Not more than four persons take lectures in between C and D. So, the final arrangement-

Months	Dates	Persons
March	1	A
	4	O
	5	C
June	1	L
	4	N
	5	B
December	1	P
	4	D
	5	M

33) Who among the following person takes a lecture just before O?

33) निम्नलिखितमेंसेकौन O केठीकपहलेव्याख्यानलेताहै?

- a) L
- b) A
- c) D
- d) M
- e) None of these
इनमेंसेकोईनहीं

Solution:

From the given statements, N take lecture on an even date in the month which has 30 days. Two persons take lectures in between N and O. Here we have 2 possibilities i.e., Case 1 and Case 2. P does not take lecture before N. B takes lecture just before P but not in the same month.

Months	Dates	Case 1	Case 2
		Persons	Persons
March	1		
	4		O
	5		
June	1		
	4	N	N
	5	B	B
December	1	P	P
	4	O	
	5		

More than two persons take lectures between O and P. Now case 1 is ruled out. Both D and M take lectures in the same month. One person takes the lecture in between A and C. Not more than four persons take lectures in between C and D. So, the final arrangement-

Months	Dates	Persons
March	1	A
	4	O
	5	C
June	1	L
	4	N
	5	B
December	1	P
	4	D
	5	M

34) How many persons take lectures in between N and C?

34) N और C के मध्य कितने व्यक्ति व्याख्यान लेते हैं?

- a) None
कोई नहीं
- b) One
एक
- c) Two
दो
- d) Three
तीन
- e) None of these
इनमें से कोई नहीं

Solution:

From the given statements, N take lecture on an even date in the month which has 30 days. Two persons take lectures in between N and O. Here we have 2 possibilities i.e., Case 1 and Case 2. P does not take lecture before N. B takes lecture just before P but not in the same month.

Months	Dates	Case 1	Case 2
		Persons	Persons
March	1		
	4		O
	5		
June	1		
	4	N	N
	5	B	B
December	1	P	P
	4	O	
	5		

More than two persons take lectures between O and P. Now case 1 is ruled out. Both D and M take lectures in the same month. One person takes the lecture in between A and C. Not more than four persons take lectures in between C and D. So, the final arrangement-

Months	Dates	Persons
March	1	A
	4	O
	5	C
June	1	L
	4	N
	5	B
December	1	P
	4	D
	5	M

35) Who among the following person definitely does not take lecture in March?

35) निम्नलिखितमेंसेकौननिश्चितरूपसेमार्चमेंव्याख्याननहींलेताहै?

- a) O
- b) P
- c) A
- d) L
- e) Both (b) and (d)
दोनों (b) और (d)

Solution:

From the given statements, N take lecture on an even date in the month which has 30 days. Two persons take lectures in between N and O. Here we have 2 possibilities i.e., Case 1 and Case 2. P does not take lecture before N. B takes lecture just before P but not in the same month.

Months	Dates	Case 1	Case 2
		Persons	Persons
March	1		
	4		O
	5		
June	1		
	4	N	N
	5	B	B
December	1	P	P
	4	O	
	5		

More than two persons take lectures between O and P. Now case 1 is ruled out. Both D and M take lectures in the same month. One person takes the lecture in between A and C. Not more than four persons take lectures in between C and D. So, the final arrangement-

Months	Dates	Persons
March	1	A
	4	O
	5	C
June	1	L
	4	N
	5	B
December	1	P
	4	D
	5	M

Coding & Decoding

Direction (36-40) : Read the following information carefully to answer the given questions

In a certain code language:

'Two child policy India' is coded as 'la pa zi ta'

'Target child policy Two' is coded as 'pa zi la sa'

'Promise policy uncertain work' is coded as 'na hi ga pa'

'Two loop hole promise' is coded as 'zi mi jo ga'

Direction (36-40) : निम्नलिखितजानकारीकाध्यानपूर्वकअध्ययनकरेंऔरनीचेदिएगएप्रश्नोंकेउत्तरदें:
एकनिश्चितकूटभाषामें:

'Two child policy India' को 'la pa zi ta' केरूपमेंकूटबद्धकियाजाताहै

'Target child policy Two' को 'pa zi la sa' केरूपमेंकूटबद्धकियाजाताहै

'Promise policy uncertain work' को 'na hi ga pa' केरूपमेंकूटबद्धकियाजाताहै

'Two loop hole promise' को 'zi mi jo ga' केरूपमेंकूटबद्धकियाजाताहै

36) How will 'Two target promise' be coded in the given language?

36) दीगईभाषामें 'Two target promise' कोकिसप्रकारकूटबद्धकियाजाएगा?

- a) zi la sa
- b) zi sa ga
- c) sa mi jo
- d) pa zi mi
- e) None of these
इनमेंसेकोईनहीं

Solution:

Word	Code
Two	zi
Child	la
Policy	pa
India	ta
Target	sa
Promise	ga
Uncertain/Work	na/hi
Loop/Hole	mi/jo

37) How will 'promise policy work' be coded in the given language?

37) दीगईभाषामें 'promise policy work' कोकिसप्रकारकूटबद्धकियाजाएगा?

- a) zi la sa
- b) zi sa ga
- c) sa mi jo
- d) pa zi mi

- e) None of these
इनमेंसेकोईनहीं

Solution:

Word	Code
Two	zi
Child	la
Policy	pa
India	ta
Target	sa
Promise	ga
Uncertain/Work	na/hi
Loop/Hole	mi/jo

38) What does 'pa' stand for?

38) 'pa' का क्या अर्थ है?

- a) Target
b) Promise
c) Policy
d) Loop
e) None of these
इनमेंसेकोईनहीं

Solution:

Word	Code
Two	zi
Child	la
Policy	pa
India	ta
Target	sa
Promise	ga
Uncertain/Work	na/hi
Loop/Hole	mi/jo

39) Which of the following will be coded as 'na hi la' in the given language?

39) दीर्घभाषामें निम्नलिखितमें से किसे 'na hi la' के रूपमें कूटबद्ध किया जाएगा?

- a) Child policy work
- b) Uncertain work child
- c) Target child promise
- d) Uncertain Two promise
- e) None of these
इनमेंसे कोई नहीं

Solution:

Word	Code
Two	zi
Child	la
Policy	pa
India	ta
Target	sa
Promise	ga
Uncertain/Work	na/hi
Loop/Hole	mi/jo

40) What is the code for 'ta' stand for?

40) 'ta' का कूट क्या है?

- a) India
- b) Promise
- c) Target
- d) Work
- e) None of these
इनमेंसे कोई नहीं

Solution:

Word	Code
Two	zi
Child	la
Policy	pa
India	ta
Target	sa
Promise	ga
Uncertain/Work	na/hi
Loop/Hole	mi/jo

Numerical ability

Data Interpretation

Direction (41 to 45) : Read the data given below and answer the following questions.

The pie chart given below shows the distribution (in degree) of females in six companies and bar graph shows the percentage distribution of males in given six companies.

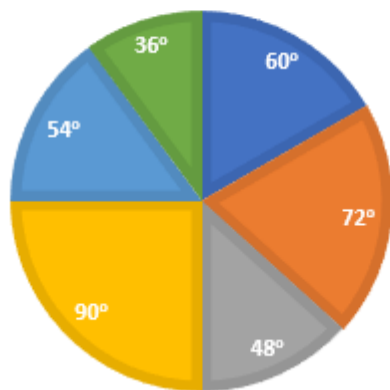
Direction (41 to 45) : नीचे दिए गए डेटा को पढ़िए और निम्नलिखित प्रश्नों के उत्तर दीजिये।

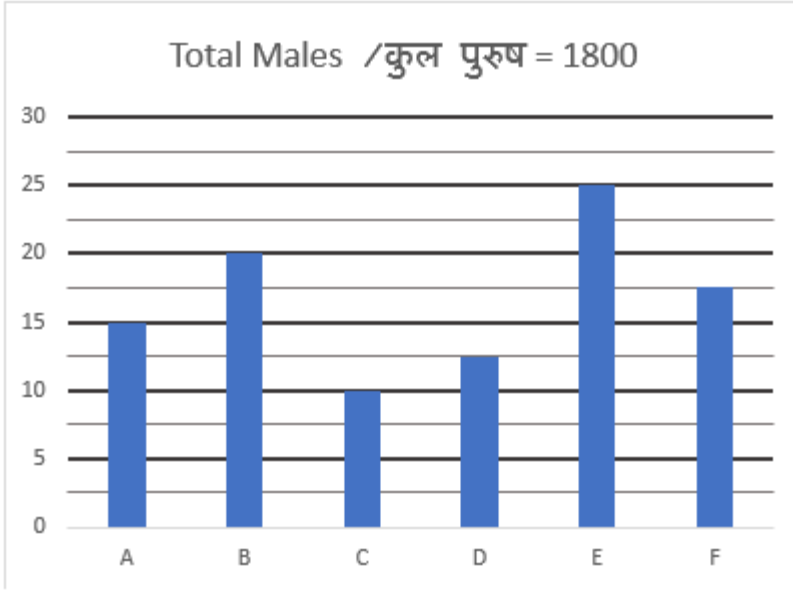
नीचे दिया गया पाई चार्ट छह कंपनियों में महिलाओं के वितरण (डिग्री में)

को दर्शाता है और बार ग्राफ दी गई छह कंपनियों में पुरुषों के प्रतिशत वितरण को दर्शाता है।

TOTAL FEMALE / कुल महिला =
2100

■ A ■ B ■ C ■ D ■ E ■ F





41) Total no. of males in company B and D together are approximately what percentage more or less than no. of females in same companies.

41) कंपनी B और D में मिलाकर पुरुषों की कुल संख्या, समान कंपनियों में महिलाओं की संख्या से लगभग कितने प्रतिशत अधिक या कम है।

- a) 32%
- b) 34%
- c) 36%
- d) 38%
- e) 40%

Solution:

$$\text{Female in company A} = \frac{60}{360} \times 2100 = 350$$

$$\text{Male in company A} = 15\% \text{ of } 1800 = 270$$

Similarly we get all the values

Company	Females	Males	Total
A	350	270	620
B	420	360	780
C	280	180	460
D	525	225	750
E	315	450	765
F	210	315	525
Total	2100	1800	3900

$$\text{Required percentage} = \frac{(420+525)-(360+225)}{(420+525)} \times 100$$

$$= \frac{360}{945} \times 100$$

$$= \frac{800}{21} \% \approx 38\%$$

42) Find the difference between total employee of company A and company C.

42) कंपनी A और कंपनी C के कुल कर्मचारियों के बीच का अंतर ज्ञात कीजिए।

- a) 160
- b) 140
- c) 120
- d) 150
- e) 130

Solution:

$$\text{Female in company A} = \frac{60}{360} \times 2100 = 350$$

$$\text{Male in company A} = 15\% \text{ of } 1800 = 270$$

Similarly we get all the values

Company	Females	Males	Total
A	350	270	620
B	420	360	780
C	280	180	460
D	525	225	750
E	315	450	765
F	210	315	525
Total	2100	1800	3900

$$\text{Required difference} = 620 - 460 = 160$$

43) Find the ratio of average no. of females in company B and F to average no. of males in company B, D and F.

43) कंपनी B और F में महिलाओं की औसत संख्या का कंपनी B, D और F में पुरुषों की औसत संख्या से अनुपात ज्ञात कीजिए।

a) 21: 23

b) 21: 20

c) 22: 25

d) 23: 21

e) 25: 21

Solution:

Female in company A = $\frac{60}{360} \times 2100 = 350$

Male in company A = 15% of 1800 = 270

Similarly we get all the values

Company	Females	Males	Total
A	350	270	620
B	420	360	780
C	280	180	460
D	525	225	750
E	315	450	765
F	210	315	525
Total	2100	1800	3900

Average no. females in company B and F = $\frac{420+210}{2} = 315$

Average no. of males in company B, D and F = $\frac{360+225+315}{3} = 300$

Required ratio = 315 : 300

= 21: 20

44) If a male and a female manufacture 7 and 5 article per hour respectively in company E, then find articles manufactured by males are what percentage of articles manufactured by females in company E.

44) यदि एक पुरुष और एक महिला कंपनी E में प्रति घंटे क्रमशः 7 और 5 वस्तुओं का निर्माण करते हैं, तो कंपनी E में पुरुषों द्वारा निर्मित वस्तु, महिलाओं द्वारा निर्मित वस्तुओं का कितना प्रतिशत है।

a) 50%

- b) 100%
- c) $66\frac{2}{3}\%$
- d) 200%
- e) 150%

Solution:

Female in company A = $\frac{60}{360} \times 2100 = 350$

Male in company A = 15% of 1800 = 270

Similarly we get all the values

Company	Females	Males	Total
A	350	270	620
B	420	360	780
C	280	180	460
D	525	225	750
E	315	450	765
F	210	315	525
Total	2100	1800	3900

Articles manufactured by males = $450 \times 7 = 3150$

Articles manufactured by females = $315 \times 5 = 1575$

So, required % = $\frac{3150}{1575} \times 100 = 200\%$

45) 20% of the females of company A moved to C and 25% of the males of company C moved to company A. Find the females in company C is how much more or less than males in company A.

45) कंपनी A की 20% महिलाएं C में चली गईं और कंपनी C के 25% पुरुष कंपनी A में चले गए। कंपनी C में महिलाएं, कंपनी A में पुरुषों की तुलना में कितनी अधिक या कम हैं।

- a) 45
- b) 42
- c) 35
- d) 33
- e) 37

Solution:

$$\text{Female in company A} = \frac{60}{360} \times 2100 = 350$$

$$\text{Male in company A} = 15\% \text{ of } 1800 = 270$$

Similarly we get all the values

Company	Females	Males	Total
A	350	270	620
B	420	360	780
C	280	180	460
D	525	225	750
E	315	450	765
F	210	315	525
Total	2100	1800	3900

$$\text{Females in company C} = 280 + \frac{20}{100} \times 350 = 350$$

$$\text{Males in company A} = 270 + 180 \times \frac{25}{100} = 315$$

$$\text{So, required difference} = 350 - 315 = 35$$

probability

Q.46 Find the probability of forming a two-digit number by using starting four prime number such that it is divisible by three?

46) चार अभाज्यसंख्याओं को इस प्रकार प्रयोग करके दो अंकों की संख्या बनाने की प्रायिकता ज्ञात कीजिए, कि वह संख्या तीन से विभाज्य हो।

- a) $1/3$
- b) $1/4$
- c) $5/16$
- d) $1/2$
- e) $3/8$

Solution:

Starting four prime number = 2, 3, 5, 7

Total two-digit numbers can be formed = $4 \times 4 = 16$

Numbers which are divisible by 3

= {27, 72, 57, 75, 33}

Required probability = $\frac{5}{16}$

percentage

Q.47 An amount is divided among X, Y and Z. Amount of Y is average of other two and when amount of Y is reduced by 20% of that of X, it becomes equal to that of Z. Find amount of Z is what percent of total amount?

47) एकराशिको X, Y और Z के बीच विभाजित किया जाता है। Y की राशि, अन्य दो का औसत है और जब Y की राशि में, X की राशि के 20% की कमी की जाती है, तो यह Z की राशि के बराबर हो जाती है। Z की राशि, कुल राशि का कितना प्रतिशत है?

- a) 20%
- b) 22.5%
- c) 25%
- d) 27.5%
- e) 30%

Solution:

Let the amount of X and Z be Rs a and b respectively

$$\text{Amount of Y} = \frac{a+b}{2}$$

ATQ

$$\frac{a+b}{2} - \frac{a}{5} = b$$

$$5b = 3a$$

Amount of X = Rs 5p

Amount of Z = Rs 3p

Amount of Y = Rs 4p

Required % = 25%

Profit & loss

Q.48 Retailer mark up an article 35% above its cost price and earn Rs 96 by giving 20% discount on the marked price. If he sells article at 15% discount on marked price then, find retailer's profit on selling one article.

48) फुटकर विक्रेता वस्तु को इसके क्रय मूल्य से 35% अधिक अंकित करता है और अंकित मूल्य पर 20% छूट देकर 96 रुपये अर्जित करता है। यदि वह अंकित मूल्य पर 15% की छूट पर वस्तु बेचता है, तो एक वस्तु बेचने पर फुटकर विक्रेता का लाभ ज्ञात कीजिए।

- a) 118
- b) 177
- c) 236
- d) 214

e) 154

Solution:

Let cost price of an article = $100x$

Mark price of an article = $100x \times \frac{135}{100} = 135x$

ATQ,

$$135x \times \frac{80}{100} - 100x = 96$$

$$\Rightarrow 108x - 100x = 96$$

$$\Rightarrow x = \frac{96}{8} = 12$$

Retailer's profit if he sells article at 15% discount

$$= 135x \times \frac{85}{100} - 100x$$

$$= 114.75x - 100x$$

$$= 14.75x$$

$$= 14.75 \times 12$$

$$= 177$$

Problems on Ages

Q.49 Present age of Amit is 50% more than Manish's present age while 5 years ago Amit's age was twice than that of Manish's age at that time. Five years hence, sum of ages of Manish and Amit is equal to Lalit's age at that time, then find present age of Lalit?

49) अमितकीवर्तमानआयु, मनीषकीवर्तमानआयुसे 50% अधिकहैजबकि 5 वर्षपहलेअमितकीआयु, उससमयमनीषकीआयुसेदोगुनीथी। पांचवर्षबाद, मनीषऔरअमितकीआयुकायोग, उससमयललितकीआयुकेबराबरहै, तोललितकीवर्तमानआयुज्ञातकीजिए।

a) 35

b) 40

c) 20

d) 25

e) 30

Solution:

Let present age of Manish = x

\Rightarrow Present age of Amit = $1.5x$

Manish's age five years ago = $x - 5$

Amit's age five years ago = $2(x-5)$

= $2x - 10$

But amit's age five years ago also equals to $(1.5x - 5)$

$\Rightarrow 2x - 10 = 1.5x - 5$

$\Rightarrow 0.5x = 5$

$\Rightarrow x = 10$

Lalit's age five years hence = $10 + 5 + 1.5 \times 10 + 5$

= $15 + 15 + 5$

= 35

Lalit's present age = $35 - 5 = 30$

Time and Work

Q.50 Neha who is 50% more efficient than Ritu who take double time than Priya to complete a work. Neha can complete a work in 'x' days while Priya can complete the same work in $(x - 15)$ days. In how many days all three can complete the same work together?

50) नेहा, रितुसे 50% अधिक कार्यकुशल है, जो एक कार्य पूरा करने के लिए प्रिया से दोगुना समय लेती है। नेहा 'x' दिनों में एक कार्य को पूरा कर सकती है जबकि प्रिया समान कार्य $(x - 15)$ दिनों में पूरा कर सकती है। समान कार्य तीनों मिलकर कितने दिनों में पूरा कर सकते हैं?

- a) 36 days
36 दिन
- b) 30 days
30 दिन
- c) 22.5 days
22.5 दिन
- d) 20 days
20 दिन
- e) 18 days
18 दिन

51)

Quantity I: Distance in km. A person covers a distance with the speed of 2.5 meters/second in 1 hours 30 minutes and 40 second. find distance covered by him.

Quantity II: 14 km

51)

Quantity I: A person covers a distance with the speed of 2.5 meters/second in 1 hours 30 minutes and 40 second. find distance covered by him.

Quantity II: 14 km

1. Quantity I > Quantity II

Quantity I > Quantity II

2. Quantity I < Quantity II

Quantity I < Quantity II

3. Quantity I ≥ Quantity II

Quantity I ≥ Quantity II

4. Quantity I ≤ Quantity II

Quantity I ≤ Quantity II

5. Quantity I = Quantity II or no relation

□□□□□□ I = □□□□□□ II □□ □□□ □□□□□ □□□□

Solution:

Quantity I: Required distance = $2.5 \times \frac{18}{5} \times \frac{5440}{3600}$
 $= 13.6 \text{ km}$

Quantity II: 14 km
 So, Quantity I < Quantity II

52)

Quantity I: Ratio between expenditure and savings of a person is 5 :4. If his income is increased by 15% and expenditure increased by 20%, then find increased percentage in savings.

Quantity II: 8%

52)

□□□□□□ **I:** □□ □□□□□□□ □□ □□□□ □□ □□□ □□ □□□□
 □□ □□□□□□ **5:4** □□□ □□□ □□□□ □□ □□□ **15%** □□
 □□□□□□ □□□□ □□ □□ □□□□ □□□□ **20%** □□ □□□□□□
 □□□□ □□, □□ □□□ □□□ □□□□□□ □□□□□□□ □□□□□□
 □□□□□□

□□□□□□ **II: 8%**

1. Quantity I > Quantity II

□□□□□□ I > □□□□□□ II

2. Quantity I < Quantity II

□□□□□□ I < □□□□□□ II

3. Quantity I ≥ Quantity II

□□□□□□ I ≥ □□□□□□ II

4. Quantity I ≤ Quantity II

□□□□□□ I ≤ □□□□□□ II

5. Quantity I = Quantity II or no relation

□□□□□□ I = □□□□□□ II □□ □□□ □□□□□ □□□□

Solution:

Quantity I: let his expenditure and savings be Rs $5x$ and Rs $4x$ respectively.

ATQ

$$\text{Increased income} = (5x + 4x) \times \frac{115}{100} = Rs\ 10.35x$$

$$\text{And increased expenditure} = 5x \times \frac{120}{100} = 6x$$

$$\text{So, new savings} = 10.35x - 6x = Rs\ 4.35x$$

$$\begin{aligned} \text{required percentage} &= \frac{4.35x - 4x}{4x} \times 100 = \frac{35}{4}\% \\ &= 8.75\% \end{aligned}$$

Quantity II: 8%

So, Quantity I > Quantity II

53)

Tap A can fill a tank in 2.5 hrs. but due to a leak in bottom of tank it takes 10 hrs. more to fill the tank. If from the leak water is running at 50 lit/hr.

Quantity I: Find capacity of tank.

Quantity II: 156.25 liters

53)

□□ **A** □□ □□□□ □□ **2.5** □□□□ □□□ □□ □□□□ □□□□
□□□□□□ □□□□ □□ □□ □□□ □□□□□□ □□ □□□□ □□□ □□□□□
□□□□ **10** □□□□ □□ □□□□ □□□□ □□□□ □□□ □□□□□□ □□
□□□□□ **50** □□□□□/□□□□ □□ □□ □□□ □□□
□□□□□□□ **I:** □□□□ □□ □□□□□□□ □□□□□□ □□□□□□□□
□□□□□□□ **II:** **156.25** □□□□□

1. Quantity I > Quantity II

□□□□□□□ I > □□□□□□□ II

2. Quantity I < Quantity II

□□□□□□□ I < □□□□□□□ II

3. Quantity I ≥ Quantity II

□□□□□□□ I ≥ □□□□□□□ II

□□□□□ □□ □□□□□ □□□□□ □□□□□ □□□□□ □□ □□□□□

□□□□ □□?

□□□□□□ II: 200 □□.

1. Quantity I > Quantity II

□□□□□□ I > □□□□□□ II

2. Quantity I < Quantity II

□□□□□□ I < □□□□□□ II

3. Quantity I ≥ Quantity II

□□□□□□ I ≥ □□□□□□ II

4. Quantity I ≤ Quantity II

□□□□□□ I ≤ □□□□□□ II

5. Quantity I = Quantity II or no relation

□□□□□□ I = □□□□□□ II □□ □□□ □□□□□ □□□□

Solution:

Quantity I: let cost price of article = Rs. $100a$

Marked price of article = $100a \times \frac{140}{100} = \text{Rs. } 140a$

ATQ

$$140a \times \frac{88}{100} - 140a \times \frac{82}{100} = 42$$

$$140a \times \frac{6}{100} = 42$$

$$a = \frac{42 \times 100}{140 \times 6}$$

$$a = 5 \text{ Rs.}$$

Required difference = $40a = \text{Rs. } 200$

Quantity II: Rs. 200

So, Quantity I = Quantity II

55)

Quantity I: Time (in months): A invests Rs 25,600 at CI at the rate of 12.5% per annum and after some time he got Rs 6800 as interest.

Quantity II: 20 Months

55)

□□□□□□ **I:** □□□ (□□□□□□ □□□): **A,**

□□□□□□□□□□ **12.5%** □□ □□ □□ □□□□□□□□□□ □□□□□□

□□ **25,600** □□□□□□ □□ □□□□□□ □□□□□ □□ □□ □□□ □□□

□□□ □□□ **6800** □□□□□□ □□□□□□ □□ □□□ □□□ □□□□□□

□□□□□

□□□□□□ **II: 20** □□□□□□

1. Quantity I > Quantity II

I > II

2. Quantity I < Quantity II

I < II

3. Quantity I ≥ Quantity II

I ≥ II

4. Quantity I ≤ Quantity II

I ≤ II

5. Quantity I = Quantity II or no relation

I = II

Solution:

Quantity I: Let time be T years.

$$25600 \left[\left(1 + \frac{12.5}{100} \right)^T - 1 \right] = 6800$$

$$\left(1 + \frac{12.5}{100} \right)^T - 1 = \frac{68}{256}$$

$$\left(\frac{9}{8} \right)^T = \frac{324}{256}$$

$$\left(\frac{9}{8} \right)^T = \frac{81}{64}$$

$$\left(\frac{9}{8} \right)^T = \left(\frac{9}{8} \right)^2$$

So, time = $T = 2 \text{ years} = 24 \text{ Months}$

Quantity II: 20 Months

So, Quantity I > Quantity II

4. 350

5. 343

Solution:

$$18 \times \frac{1}{27} \times 9 + 324 \approx ?$$

$$? \approx 6 + 324$$

$$? \approx 330$$

57)

$$120.09\% \text{ of } 854.8 + 179\% \text{ of } 555.4 = ?^2$$

1. 55

2. 40

3. 45

4. 50

5. 35

Solution:

$$\begin{aligned}\frac{120}{100} \times 855 + \frac{180}{100} \times 555 &\approx ?^2 \\ 1026 + 999 &\approx ?^2 \\ ?^2 &\approx 2025 \\ ? &\approx 45\end{aligned}$$

58)

$$(4.04)^3 + (15.96)^{\frac{1}{4}} + (8.08)^2 = ? + 117.89$$

1. 12

2. 18

3. 21

4. 15

5. 13

Solution:

$$64 + 2 + 64 \approx ? + 118$$

$$? \approx 130 - 118$$

$$? \approx 12$$

59)

$$\frac{4}{7}\% \text{ of } 67199 - \frac{2}{5} \text{ of } 644.96 = ?$$

1. 132

2. 140

3. 144

4. 126

5. 120

Solution:

$$\frac{4}{700} \times 67200 - \frac{2}{5} \times 645 \approx ?$$

$$384 - 258 \approx ?$$

$$? \approx 126$$

60)

$$(14.96)^2 - \sqrt{1155} + \sqrt[3]{126} = ?^2$$

1. 9

2. 14

3. 20

4. 18

5. 7

Solution:

$$\begin{aligned}(15)^2 - \sqrt{1156} + \sqrt[3]{125} &\approx ?^2 \\ 225 - 34 + 5 &\approx ?^2 \\ ?^2 &\approx 196 \\ ? &\approx 14\end{aligned}$$

Number Series

Direction(61-65):What will come in the place of question (?) mark in following number series.

Direction(61-65): निम्नलिखित संख्या श्रृंखला में प्रश्नचिह्न (?) के स्थान पर क्या आएगा।

61)

567, 571, ?, 623, 687, 787

1. 615

2. 599

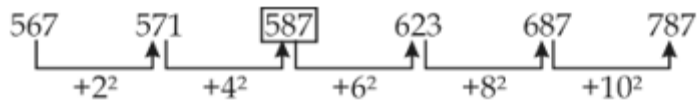
3. 587

4. 601

5. 593

Solution:

Pattern of series -



62)

167, 118, 76, 42, ?, -4

1. 17

2. 14

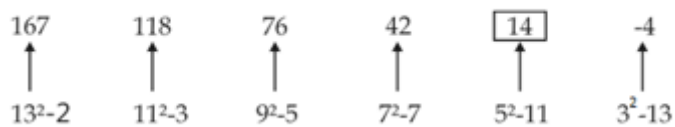
3. 18

4. 16

5. 25

Solution:

Pattern of series -



63)

?, 120, 134, 160, 204, 272

1. 112

2. 104

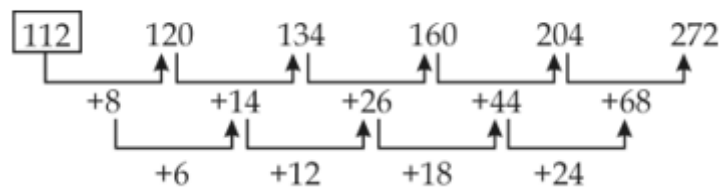
3. 106

4. 114

5. 100

Solution:

Pattern of series -



64)

5, ?, 2067, 2411, 2537, 2565

1. 1337

2. 1327

3. 1317

4. 1307

5. 1347

Solution:

Pattern of series -

$$+(11^3+1), +(9^3+1), +(7^3+1), +(5^3+1), +(3^3+1),$$

$$\text{So, } 5 + (11^3 + 1) = 1337$$

65)

427, ? , 366, 73.2, 292.8, 97.6

1. 51

2. 41

3. 61

4. 71

5. 31

Solution:

Pattern of series -

$$\div 7, \times 6, \div 5, \times 4, \div 3, \dots$$

$$\text{So, } 427 \div 7 = 61$$

Areas and Volumes

66) If the curved surface area of a cylindrical vessel is 1760 cm^2 and the ratio of height to the radius of the cylindrical vessel is 10:7 respectively, then find the volume of the cylindrical vessel (in cm^3)?

66) यदि एक बेलनाकार बर्तन का वक्रपृष्ठीय क्षेत्रफल 1760 सेमी^2 है और बेलनाकार बर्तन की ऊँचाई और त्रिज्या का अनुपात क्रमशः 10:7 है, तो बेलनाकार बर्तन का आयतन (सेमी³ में) ज्ञात कीजिए।

a) 12500

b) 12480

c) 12320

d) 12720

e) 12840

Solution:

Let height & radius of cylindrical vessel be
10x cm & 7x cm respectively.

ATQ,

$$2 \times \frac{22}{7} \times 7x \times 10x = 1760$$

$$x^2 = 4$$

$$x = 2$$

$$\text{Required volume} = \frac{22}{7} \times (7x)^2 \times 10x$$

$$= \frac{22}{7} \times (7 \times 2)^2 \times 10 \times 2$$

$$= 12320 \text{ cm}^3$$

compound interest

67) Shivam invested **Rs.X** in a scheme offering 20% p.a. at CI compounding annually

for 3 years. If the interest earned in third year only is Rs. 21600, then find **X**.

67)) शिवमने 3 वर्षकेलिएवार्षिकरूपसेसंयोजितचक्रवृद्धिब्याजपर 20%

प्रतिवर्षकीपेशकशकरनेवालीयोजनामें X रुपयेकानिवेशकिया।यदिकेवलतीसरेवर्षमेंअर्जितब्याज 21600

रुपयेहै, तो X ज्ञातकीजिए।

a) 60,000

b) 75,000

c) 55,000

d) 70,000

e) 65,000

Solution:

Equivalent interest rate of 20% p.a. at CI

$$\text{for two years} = \left(20 + 20 + \frac{20 \times 20}{100}\right) \%$$

$$= 44\%$$

And, equivalent interest rate of 20% p.a. at CI for

$$\text{three years} = \left(44 + 20 + \frac{44 \times 20}{100}\right) \%$$

$$= 72.8\%$$

ATQ,

$$\frac{X \times 72.8}{100} - \frac{X \times 44}{100} = 21600$$

$$X = \frac{2160000}{28.8}$$

$$X = 75,000 \text{ Rs.}$$

Profit & loss

68) A shopkeeper sold a table at 40% discount and thus making a loss of 10%. If he gives a discount equals to half of the previous discount then he makes a profit of Rs. 60. Find at what price shopkeeper should sell the table to make a profit of 25%?

68) एक दुकानदार ने एक मेज को 40% छूट पर बेचा और इस प्रकार 10% की हानि हुई। यदि वह पिछली छूट के आधे के बराबर छूट देता है तो उसे 60 रुपये का लाभ होता है। ज्ञात कीजिए कि दुकानदार को 25% का लाभ कमाने के लिए किस कीमत पर मेज बेचनी चाहिए?

a) 600 Rs./ 600 रुपये

b) 540 Rs./ 540 रुपये

c) 375 Rs./ 375 रुपये

d) 360 Rs./ 360 रुपये

e) 480 Rs./ 480 रुपये

Solution:

Let mark price of table = Rs. $100x$

After discount of 40%, selling price of table = $\frac{100x \times 60}{100} = \text{Rs. } 60x$

Given, loss on selling table at 40% discount = 10%

Cost price of table = $\frac{60x}{90} \times 100 = \text{Rs. } \frac{200}{3}x \quad \dots (i)$

When table is sold at half discount, i.e. 20% discount, then:

Selling price of table = $\frac{100x \times 80}{100} = \text{Rs. } 80x$

Cost price of table = $80x - 60 \quad \dots (ii)$

Comparing (i) & (ii):

$$\frac{200x}{3} = 80x - 60$$

$$x = 4.5 \text{ Rs.}$$

Cost price of table = $\frac{200}{3} \times 4.5 = \text{Rs. } 300$

So, required selling price = $300 \times \frac{125}{100} = 375 \text{ Rs.}$

Problems on Averages

69) In a class there are 60 girls and 30 boys, and the total average weight of class is $48 \frac{2}{3}$ kg. If the average weight of boys is 56 kg, then find the difference between the average weight of one boy and one girl?

69) एक कक्षा में 60 लड़कियां और 30 लड़के हैं,

और कक्षा का कुल औसत वजन $48 \frac{2}{3}$ किग्रा है। यदि लड़कों का औसत भार 56 किग्रा है, तो एक लड़के और एक लड़की के औसत भार के बीच का अंतर ज्ञात कीजिये।

- a) 11 kg/11 किग्रा
- b) 9 kg/9 किग्रा
- c) 15 kg/15 किग्रा
- d) 10 kg/10 किग्रा
- e) None of these/ इनमें से कोई नहीं

Solution:

$$\text{Total weight of class} = (60 + 30) \times \frac{146}{3} = 4380 \text{ kg}$$

$$\text{Total weight of boys} = 30 \times 56 = 1680 \text{ kg}$$

$$\text{So, weight of one girl} = \frac{(4380 - 1680)}{60} = 45 \text{ kg}$$

$$\text{Required difference} = 56 - 45 = 11 \text{ kg}$$

Partnership

70) Veer, Aayush and shivam entered into a business and invested in the ratio of a : 12 : 15 respectively. If time period for which Veer, Aayush and shivam invested is in the ratio of 12: 10 : b respectively and the profit share of Veer, Aayush and shivam is same, then find 'a-b'?

70) वीर, आयुष और शिवम ने एक व्यवसाय में प्रवेश किया और क्रमशः a : 12 : 15

के अनुपात में निवेश किया। यदि वीर, आयुष और शिवम द्वारा निवेश की समयावधि क्रमशः 12 : 10 : b

के अनुपात में है और वीर, आयुष और शिवम का लाभ हिस्सा समान है, तो 'a-b' ज्ञात करें।

a) 4

b) 3

c) 5

d) 2

e) None of these
इनमें से कोई नहीं

Solution:

Profit sharing ratio of Veer, Aayush and Shivam =

	Veer		Aayush		Shivam
Investment	a	:	12	:	15
Time	12	:	10	:	b

	12a		120		15b
--	-----	--	-----	--	-----

Now given,

$$12a = 120$$

$$a = 10$$

$$\text{And, } 120 = 15b$$

$$b = 8$$

$$\text{so, } a - b = 10 - 8 = 2$$

Quadratic equations

Direction (71-75) : In the following questions two equations numbered (I) and (II) are given. You have to solve both equations and

Direction (71-75) : निम्नलिखित प्रश्नों में दो समीकरण (I) और (II) दी गयी हैं। आपको दोनों समीकरणों को हल करना है और उत्तर देना है-
Give answer

71)

(i) $4x^2 - 17x + 18 = 0$

(ii) $2y^2 - 11y + 15 = 0$

a) if $x > y$
यदि $x > y$

b) if $x \geq y$
यदि $x \geq y$

c) if $x < y$
यदि $x < y$

d) if $x \leq y$
यदि $x \leq y$

e) If $x = y$ or the relationship cannot be established
यदि $x = y$ या संबंध स्थापित नहीं किया जा सकता

Solution:

(i) $4x^2 - 17x + 18 = 0$

$$4x^2 - 9x - 8x + 18 = 0$$

$$x[4x - 9] - 2[4x - 9] = 0$$

$$[4x - 9][x - 2] = 0 \Rightarrow x = 2, \frac{9}{4}$$

(ii) $2y^2 - 11y + 15 = 0$

$$2y^2 - 5y - 6y + 15 = 0$$

$$y[2y - 5] - 3[2y - 5] = 0$$

$$[2y - 5][y - 3] = 0 \Rightarrow y = 3, \frac{5}{2}$$

$$y > x$$

$$(i) 3x^2 - 18x - 48 = 0$$

$$72) (ii) 4y^2 + 8y - 32 = 0$$

a) if $x > y$
यदि $x > y$

b) if $x \geq y$
यदि $x \geq y$

c) if $x < y$
यदि $x < y$

d) if $x \leq y$
यदि $x \leq y$

e) If $x = y$ or the relationship cannot be established
यदि $x = y$ या संबंध स्थापित नहीं किया जा सकता

Solution:

$$(i) 3x^2 - 18x - 48 = 0$$
$$\Rightarrow x^2 - 6x - 16 = 0$$
$$x^2 - 8x + 2x - 16 = 0$$
$$x[x - 8] + 2[x - 8] = 0$$
$$[x + 2][x - 8] = 0 \Rightarrow x = 8 - 2$$

$$(ii) 4y^2 + 8y - 32 = 0$$
$$\Rightarrow y^2 + 2y - 8 = 0$$
$$y^2 + 4y - 2y - 8 = 0$$
$$y[y + 4] - 2[y + 4] = 0$$
$$[y + 4][y - 2] = 0$$
$$y = -4, 2$$

No relation can be established.

$$(i) 3x^2 + 42x + 144 = 0$$

$$73) (ii) 4y^2 - 8y = 192$$

a) if $x > y$
यदि $x > y$

b) if $x \geq y$
यदि $x \geq y$

- c) if $x < y$
यदि $x < y$
- d) if $x \leq y$
यदि $x \leq y$
- e) If $x = y$ or the relationship cannot be established
यदि $x = y$ या संबंध स्थापित नहीं किया जा सकता

Solution:

(i) $3x^2 + 42x + 144 = 0$
 $\Rightarrow x^2 + 14x + 48 = 0$
 $\Rightarrow x^2 + 8x + 6x + 48 = 0$
 $x[x + 8] + 6[x + 8] = 0$
 $[x + 8][x + 6] = 0$
 $\Rightarrow x = -6, -8$

(ii) $4y^2 - 8y = 192$
 $y^2 - 2y - 48 = 0$
 $y^2 - 8y + 6y - 48 = 0$
 $y[y - 8] + 6[y - 8] = 0$
 $[y - 8][y + 6] = 0$
 $\Rightarrow y = 8, -6$
 $y \geq x$

(i) $x^2 - 19x = 42$

74) (ii) $2y^2 + 38y = 84$

- a) if $x > y$
यदि $x > y$
- b) if $x \geq y$
यदि $x \geq y$
- c) if $x < y$
यदि $x < y$
- d) if $x \leq y$
यदि $x \leq y$

- e) If $x = y$ or the relationship cannot be established
यदि $x = y$ या संबंध स्थापित नहीं किया जा सकता

Solution:

(i) $x^2 - 19x - 42 = 0$

$$x^2 - 21x + 2x - 42 = 0$$

$$x[x - 21] + 2[x - 21] = 0$$

$$[x - 21][x + 2] = 0$$

$$x = 21, -2$$

(ii) $2y^2 + 38y - 84 = 0$

$$2y^2 + 42y - 4y - 84 = 0$$

$$2y[y + 21] - 4[y + 21] = 0$$

$$[y + 21][2y - 4] = 0$$

$$y = -21, 2$$

No relation can be established

(i) $x^{3/2} = 125$

75) (ii) $y^2 + 5y = 750$

a) if $x > y$
यदि $x > y$

b) if $x \geq y$
यदि $x \geq y$

c) if $x < y$
यदि $x < y$

d) if $x \leq y$
यदि $x \leq y$

- e) If $x = y$ or the relationship cannot be established
यदि $x = y$ या संबंध स्थापित नहीं किया जा सकता

Solution:

(i) $x^{\frac{3}{2}} = 125$

$\Rightarrow x = 25$

(ii) $y^2 + 5y - 750 = 0$

$y^2 + 30y - 25y - 750 = 0$

$y[y + 30] - 25[y + 30] = 0$

$[y + 30][y - 25] = 0$

$y = -30, 25$

$x \geq y$

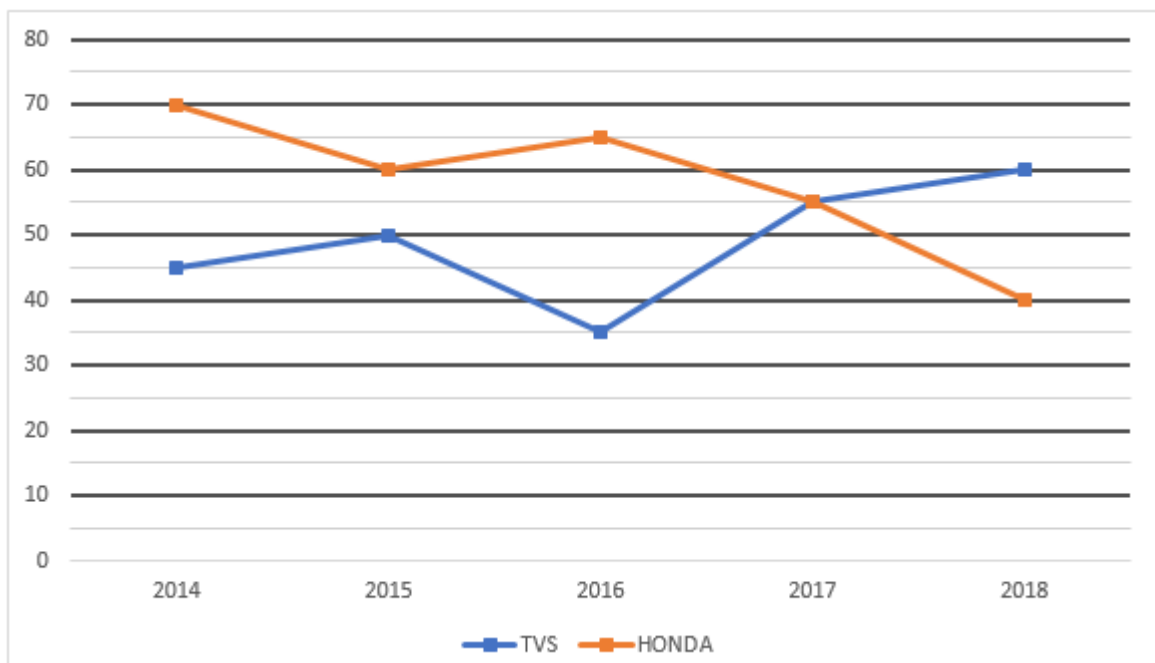
Data Interpretation

Direction (76 to 80) : Line-graph shows number of people (in hundred) using two different types of bike services over the years. Study the given line graph carefully and answer the questions given below:

Direction (76 to 80) : लाइन-ग्राफ़ वर्षों में दो अलग-

अलग प्रकार की बाइक सर्विस का उपयोग करने वाले व्यक्तियों (सैकड़ों में)

को दर्शाता है। दिए गए लाइन ग्राफ का ध्यानपूर्वक अध्ययन करें और नीचे दिए गए प्रश्नों के उत्तर दें:



76) What is the average no. of people using the HONDA bike service in all over the years?

76) सभी वर्षों में होंडा बाइक सर्विस का उपयोग करने वाले व्यक्तियों की औसत संख्या कितनी है?

- a) 6400
- b) 4900
- c) 5800
- d) 6125
- e) 6800

Solution:

$$\text{Required average} = \frac{(70+60+65+55+40) \times 100}{5} = 5800$$

77) Find the ratio of no. of people using the HONDA service in year 2015 and 2016 together to no. of people using the TVS service in year 2017 and 2014 together.

77) वर्ष 2015 और 2016 में मिलाकर होंडा सर्विस का उपयोग करने वाले व्यक्तियों की संख्या का वर्ष 2017 और 2014 में मिलाकर टीवीएस सर्विस का उपयोग करने वाले व्यक्तियों की संख्या से अनुपात क्या है?

- a) 4 : 5
- b) 3 : 4
- c) 5 : 4
- d) 6 : 5
- e) 4 : 3

Solution:

$$\text{Required ratio} = \frac{6000+6500}{5500+4500} = \frac{5}{4}$$

78) What is the difference between no. of people using TVS service all over the years (excluding 2016) and no. of people using HONDA service all over the years (excluding 2015)?

78) वर्षों से टीवीएस सर्विस का उपयोग करने वाले व्यक्तियों की संख्या (2016 को छोड़कर) और वर्षों से होंडा सर्विस का उपयोग करने वाले व्यक्तियों की संख्या (2015 को छोड़कर) के बीच अंतर क्या है?

- a) 2000
- b) 2500
- c) 3500

- d) 1500
e) none of these

Solution:

$$\text{Required difference} = (7000+6500+5500+4000) - (4500+5000+5500+6000) \\ = 2000$$

79) Total bike service in year 2018 is what percentage more/less than the total bike service in year 2014 and 2015 together?

79) वर्ष 2018 में कुल बाइक सर्विस, वर्ष 2014 और 2015 में मिलाकर कुल बाइक सर्विस से कितने प्रतिशत अधिक/कम है?

- a) $45\frac{4}{9}\%$
b) $55\frac{5}{9}\%$
c) $54\frac{4}{9}\%$
d) $65\frac{5}{9}\%$
e) $64\frac{4}{9}\%$

Solution:

$$\text{Required percentage} = \frac{22500 - 10000}{22500} \times 100 \\ = \frac{500}{9}\% = 55\frac{5}{9}\%$$

80) If per service cost of TVS is 20% more than HONDA, then total service cost of TVS in year 2015 is what percent of total service cost of HONDA in same year?

80) यदि टीवीएस की प्रति सर्विस लागत होंडा से 20% अधिक है, तो वर्ष 2015 में टीवीएस की कुल सर्विस लागत, उसी वर्ष होंडा की कुल सेवा लागत का कितना प्रतिशत है?

- a) 125%
b) 150%
c) 200%
d) 100%

e) 50%

Solution:

Let per service cost of HONDA be 'x'

ATQ

$$\begin{aligned}\text{Required percentage} &= \frac{1.2x(5000)}{6000x} \times 100 \\ &= 100\%\end{aligned}$$