REASONING

Directions (1-5) : I*n each of the following questions, two or three statements followed by two Conclusions numbered I and II have been given. You have to take the given Statements to be true even if they seem to be at variance from the commonly known facts and then decide which of /the given Conclusions logically follows from the given statements disregarding comMonty known facts.*

Give answer (1) if both the Conclusion I and Conclusion II follow
Give answer (2) if either Conclusion I or Conclusion II follows
Give answer (3) if neither Conclusion I nor Conclusion 11 follows
Give answer (4) if only Conclusion I follows
Give answer (5) if only Conclusion II follows

(1-2) : Statements

All calls are mails.
Some mails are posts.
Some posts are letters.

1. **Conclusions**

   I. All posts being calls is a possibility.
   II. No letter is a mail.

Solution:4

Q. No 1 – 5.

(i) All calls are mails → Universal Affirmative (A-type).
(ii) Some mails are posts → Particular Affirmative (I-type).
(iii) No road is underpass → Universal Negative (E-type).
(iv) Some roads are not underpasses → Particular Negative (O-type).

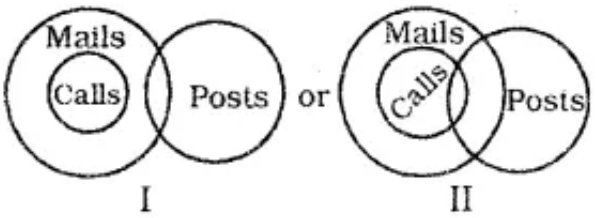
1.- 2.

All calls are mails.

Some mails are posts.

A + I ⇒ No Conclusion

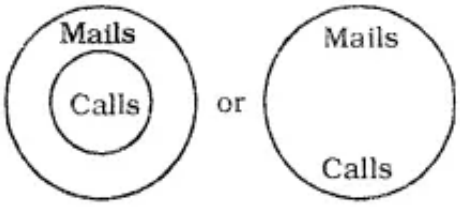
Venn Diagram Method :



I II

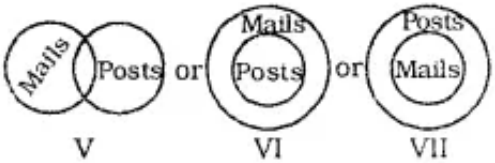
1.

(4) Venn diagrams of "All calls are mails" :



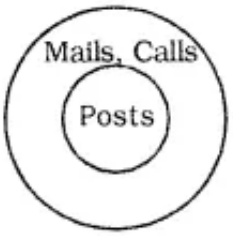
III IV

Venn diagrams of "Some mails are posts" :



V VI VII

After combining the venn diagrams IV and VI, we get :



Therefore, Conclusion I follows.

2. **Conclusions**

I. All mails are calls.

II. No call is a letter.

Solution:3

(3) Neither Conclusion I nor Conclusion II follows.

3. **Statements**

Some vehicles are cars. Some cars are trucks. All trucks are sedans.

Conclusions

I. All vehicles being sedans is a possibility.

II. At least some cars are sedans.

Solution:1

(1) Some cars are trucks.

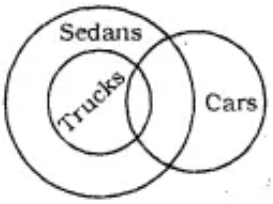
All trucks are sedans.

I + A ⇒ I – type of Conclusion

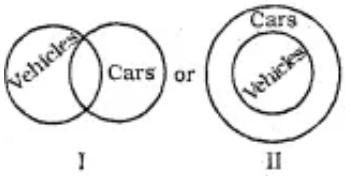
"Some cars are sedans."

This is Conclusion II

Venn Diagram Method :



Venn diagrams of "Some vehicles are cars" :

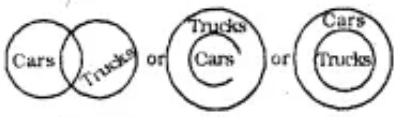


I II

or

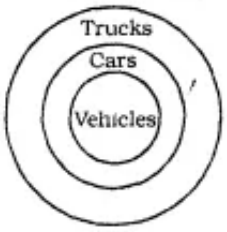
III

Venn diagrams of "Some cars are trucks" :



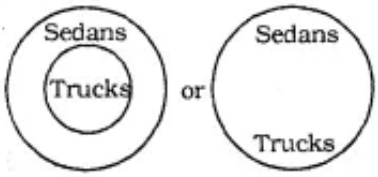
IV V VI

After combining the venn diagrams II and V, we get :



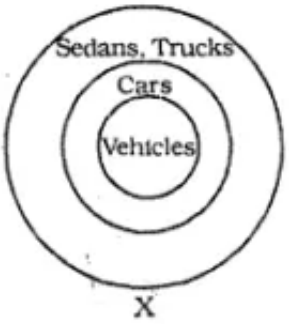
VII

Venn diagrams of "All trucks are sedans" :



VIII IX

After combining the venn diagrams VII and IX, we get :



X

Therefore, all vehicles being sedans is a possibility. Thus, Conclusion I also follows.

4. **Statements**

Some bridges are roads. No road is underpass.

Conclusions

I. Some bridges are underpasses.

II. No bridge is an underpass.

Solution:2

(2) Some bridges are roads.

No road is underpass.

I + E ⇒ O – type of Conclusion

"Some bridges are not underpasses".

Conclusion I and Conclusion II form Complementary Pair. Therefore, either Conclusion I or Conclusion II follows.

5. **Statements**

No unit is a part. All parts are items. Some items are elements.

Conclusions

I. No unit is an element.

II. At least some units are items.

Solution:5

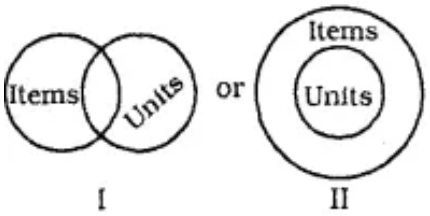
(5) No unit is a part.

All parts are items.

E + A ⇒ O_1– type of Conclusion

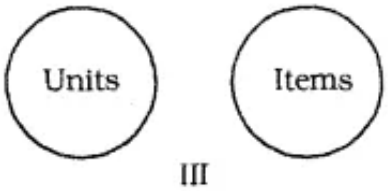
"Some items are not units."

Venn diagrams of "Some items are not units" :



I II

or



III

Venn diagrams I and II support the Conclusion II, but Venn diagram III contradicts it. However, 'at least' is mentioned in the Conclusion II, so there is possibility that the Conclusion is Valid.

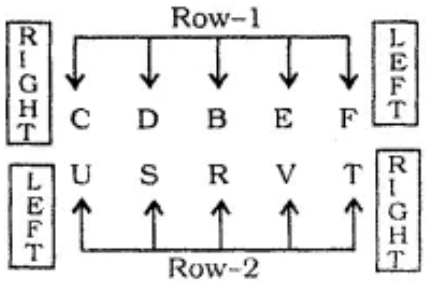
Directions (6-10) : *Study the following information carefully and answer the questions given below :*

Ten persons are sitting in two parallel rows containing five persons each, in such a way that there is equal distance between adjacent persons. In row 1 — B, C, D, E and F are seated (not necessarily in the same order) and all of them are facing south. In row 2 — R, S, T, U and V are seated (not necessarily in the same order) and all of them are facing north. Therefore, in the given seating arrangement, each member seated in a row faces another member of the other row. R sits second to the right of U. The person facing R sits to the immediate left of D. Only one person sits between D and E. E does not sit at an extreme end of the line. The person facing E is an immediate neighbour of T. S sits third to the left of T. F is not an immediate neighbour of D. B does not face U.

6. Who amongst the following is facing V ?
   (1) F
   (2) D
   (3) C
   (4) B
   (5) E

Solution:5

Q.No. 6 – 10



6.

(5) E is facing V.

7. Who amongst the following is facing C ?
   (1) T
   (2) S
   (3) V
   (4) U
   (5) R

Solution:4

(4) U is facing C.

8. What is the position of D with respect to F ?
(1) Immediate left
(2) Second to the left
(3) Third to the right
(4) Immediate right
(5) Second to the right

Solution:3
(3) D is sitting third to the right of F.

9. Which of the following statements is true regarding B?
(1) None of the given statements is true
(2) C sits second to the right of B
(3) B sits at an extreme end of the row
(4) B faces one of the immediate neighbours of T
(5) Only two persons sit between B and F

Solution:2
(2) B sits exactly in the middle of the line.
B faces R. R is an immediate neighbour of both S and V. Only E sits between B and F.

10. Four of the following five are alike in a tertian way based on the given arrangement and hence form a group. Which one of the following does not belong to that group ?
(1) RU
(2) SR
(3) VT
(4) EB
(5) DC

Solution:1
(1) R sits second to the right of U. S sits to the immediate left of R V sits to the immediate left of T. E sits to the immediate left of B. D sits to the immediate left of C.

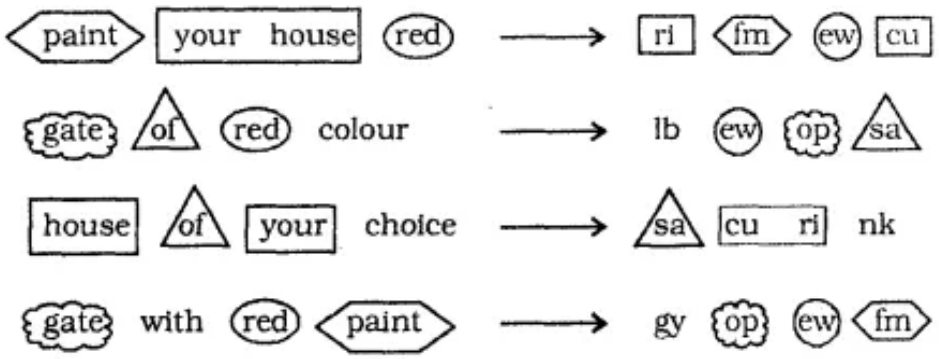
Directions (11-15) : *Study the following information carefully and answer the questions given below :*
In a certain code language, 'paint your house red' is written as `ri fm ew cu'

`gate of red colour' is written as 'lb ew op sa'
'house of your choice' is written as 'sa cu ri nk'
`gate with red paint' is written 'gy op ew fm'
(All codes are two letter codes only)

11. What is the code for 'red' in the given code language ?
(1) Other than those given as options
(2) sa
(3) gfr'
(4) ew
(5) fm

Solution:4

Q. No. 11 – 15



11.

(4) red ⇒ ew

12. What maybe the possible code for 'gate crash' in the given code language ?
(1) jx op
(2) ri op
(3) lb jx
(4) op lb
(5) jx ri

Solution:1

(1) gate ⇒ op

The code for 'crash' may be 'jx'.

13. In the given code language, what does the code 'cu' stand for ?
(1) paint
(2) either 'of' or 'colour'
(3) choice

(4) with
(5) either 'house' or 'your'

Solution:5
(5) 'cu' stands for either 'house' or 'your'.

14. What is the code for 'paint' in the given code language ?
(1) gy
(2) fm
(3) sa
(4) op
(5) ri

Solution:2
(2) paint ⇒ fm

15. If 'colour with canvas' is coded as 'hv lb gy' in the given code language, then what is the code for 'canvas of choice'?
(1) hv nk ew
(2) ri sa nk
(3) nk hv sa
(4) sa ew hv
(5) sa ri hv

Solution:3
(3) colour ⇒ lb
with ⇒ gy
canvas ⇒ hv
Therefore,
canvas ⇒ hv
of ⇒ sa
choice ⇒ nk

Directions (16-18) : *Study,the following information carefully and answer the questions given below :*
Each of the six buildings — E, F, G, H, I and J — has different number of floors. Only three buildings have more number of floors than J. G has more number of floors than I but less than E. I has more number of floors than J. F does not have

the least number of floors. The building having least number of floors has 5 floors. The building having third highest number of floors has 26 floors. F has 14 floors less than the number of floors in I.

16. If the number of floors in building G is less than 38 and is an odd number which is di-
visible by 3 but not 7, how many floors does G have ?
(1) 15
(2) 35
(3) 9
(4) 27
(5) 29

Solution:4
Q. No16 – 18

□, □, □ > J > □, □

E > G > I

E > G > I > J > □, □

E > G > I > J > F > H

↓ ↓

26 Floors 5 Floors

F has 26 – 14 = 12 floors

(4) G has second highest number of floors. ;The probable number of floors G has = 27, 30. 33 27 and 33 are odd numbers and both are divisible by 3. 27 is given as an option.

17. Which of the following buildings has the second highest number of floors ?
(1) I
(2) F
(3) J
(4) H
(5) G

Solution:5
(5) G has the second highest number of floors.

18. How many floors does building J possibly have ?
(a) 22

(2) 5
(3) 11
(4) 35
(5) 12

Solution:1
(1) J must have more than 12 but less than 26 floors.

Directions (19-20) : *Study the following information carefully and answer the questions given below :*
K is the brother of J. J has only one daughter. J is the mother of L. L is the sister of T. B is the father of T. T is married to R.

19. How is J related to R ?
(1) Cannot be determined
(2) Sister-in-law
(3) Mother
(4) Aunt
(5) Mother-in-law

Solution:5
Q . No . 19 – 20
J is the sister of K. L is the daughter of J and B T is the son of J and B. T is the husband of R.
19.
(5) R is the wife of T. J is the mother of T. Therefore, J is the mother-in-law of R.

20. How is T related to K ?
(1) Niece
(2) Cannot be determined
(3) Nephew
(4) Son
(5) Daughter

Solution:3
(3) K is the brother of J. T is the son of J. J is the mother of T. Therefore, T is nephew of K.

Directions (21-25) *Study the following information carefully and answer the questions given below :*

Seven persons namely B, C, D, E, F, G and H have to attend a workshop but not necessarily in the same order, in seven different (months of the same year) namely January, March, April, July, August, September and December. Each of them also likes a different company namely HTC, Nokia, Samsung, Blackberry, TCS, Infosys and Godrej but not necessarily in the same order. The one who likes TCS will attend a workshop in the month which has less than 31 days. Only one person will attend a workshop between the one who likes TCS and
B. The one who likes HTC will attend a workshop immediately before B. Only three persons will attend a worksship between the one who likes TCS and the one who likes Nokia. H will attend a workshop immediately after B. Only three persons will attend a workshop between H and G. The one who likes Infosys will attend a workshop immediately before G. The one who likes Samsung will attend a workshop immediately before the one who likes Godrej. E will attend a workshop immediately after the one who lies Godrej. C will attend a workshop in a month which has only 30 days. F does not like HTC.

21. How many persons will attend a workshop between the months in which G and D will attend a workshop ?
(1) Two
(2) Three
(3) One
(4) More than three
(5) None

Solution:3
Q. No . 21 – 25

Month	Person	Company
January	F	Infosys
March	G	Blackberry
April	C	TCS
July	D	HTC
August	B	Samsung
September	H	Godrej
December	E	Nokia

.(3) G'will attend workshop in Marc& D will attend workshop in July. Only C will attend workshop between G and D.

22. As per the given arrangement, G is related to HTC and B is related to Nokia

following a certain pattern, which of the following is D related to following the same pattern ?

(1) Samsung
(2) Infosys
(3) TCS
(4) HTC
(5) Godrej

Solution:5
(5) HTC is liked by the person who will attend workshop second after G.
Similarly, Nokia is liked by the person who will attend workshop second after B.
Godrej is liked by the person who will attend workshop second after D.

23. Which of the following represents the month in which F will attend a workshop ?

(1) March
(2) January
(3) December
(4) April
(5) Cannot be determined

Solution:2
(2) F will attend workshop in January.

24. Which of the following represents the persons who will attend a workshop in March and December respectively ?

(1) G, E
(2) F, B
(3) F, E
(4) F, H
(5) G, H

Solution:1
(1) G will attend workshop in March and E in December.

25. Which of the following companies does G like ?

(1) Samsung

(2) HTC
(3) TCS
(4) Blackberry
(5) Nokia

Solution:4
(4) G likes Blackberry.

Directions (26-30) : *In each of the following questions, relationship between different elements is shown in the statements. The statements are followed by two Conclusions numbered I and II. Study the Conclusions based on the given statements and mark the appropriate answer :*
Give answer (1) if both the Conclusion I and Conclusion II are true
Give answer (2) if either Conclusion I or Conclusion II is true
Give answer (3) if neither Conclusion I nor Conclusion II is true
Give answer (4) if only Conclusion I is true
Give answer (5) if only Conclusion II is true

(26-27) : Statements
P ≤ L ≤ A > N = K ≥ S : C ≥ A

26. **Conclusions**
I. L > K
II. P ≤ S

Solution:3
Q No. 26 – 27
$P \leq L \leq A > N = K \geq S$
$C \geq A$
$P \leq L \leq A \leq C$
26.
(3) **Conclusions**
I. L > K : Not True
II. P ≤ S : Not True

27. **Conclusions**
I. C > P
II. P = C

Solution:2

(2) **Conclusions**

I. C > P : Not True

II. P = C : Not True

C is either greater than or equal to P. Therefore, either Conclusion I or Conclusion II is true.

28. **Statements**

J > U ≥ N = K ≤ E < D

Conclusions

I. E ≤ U

II. D > N

Solution:5

(5) J > U ≥ N = K ≤ E < D

Conclusions

I. E ≤ D : Not True

II. D > N : True

(29-30) : Statements

I < J ≤ K ≤ L > M ≥ N:

K ≤ B = S

29. **Conclusions**

I. N < L

II. L = N

Solution:4

Q. No 29 – 30

I < J ≤ K ≤ L > M ≥ N

K ≤ B = S

I < J ≤ K ≤ B = S

29.

(4) **Conclusions**

I. N < L : True

II. L = N : Not True

30. **Conclusions**

I. I < S

II. J ≤ B

Solution:1

(1) **Conclusions**

I. I < S : True

II. J ≤ B : True

Directions (31-35) : *Study the following information carefully and answer the given questions :* Eight persons, J, K, L, M, N, O, P and Q are sitting around a circular table facing the centre with equal distances between each other (but not necessarily in the same order). Each one of them is also related to N in some way or the other. K sits third to the left of N. Only one person sits between N and Q. N's sister sits to the immediate right of Q. Only two persons sit between N's sister and N's mother. J sits to the immediate right of N's mother.

P sits to the immediate right of M. N's brother sits third to the right of P. N's wife sits second to the left of N's brother. Only three persons sit between _N's wife and L. N's son sits second to the right of N's father. Only two persons sit between N's father and N's daughter.

31. Who amongst the following is the son of J ?

(1) M

(2) P

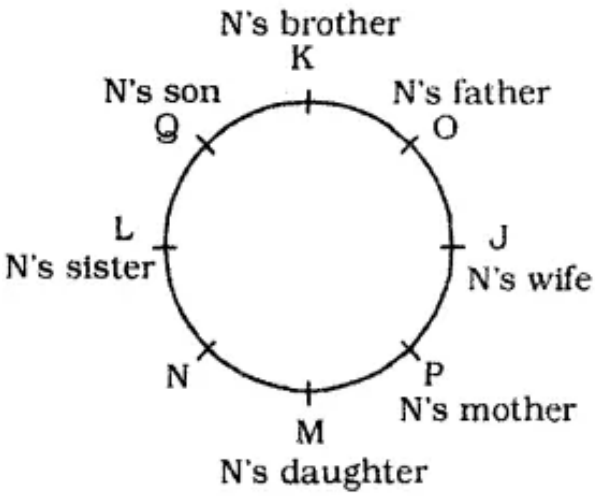
(3) K

(4) O

(5) Q

Solution:5

Q. No 31 – 35



31.

(5) J is the wife of N. Q is the son of J and N.

32. How many persons sit between N and K, when counted from the left of K ?
(1) Five
(2) One
(3) Four
(4) None
(5) Three

Solution:3
(3) Four persons – O, J. P and M – sit between K and N when counted from the left of K.

33. Who sits to the immediate right of Q ?
(1) N's sister
(2) N
(3) N's wife
(4) K
(5) J

Solution:1
(1) N's sister L sits to the immediate right of Q.

34. Which of the following statements is true with respect to the given information ?
(1) All the given options are true
(2) P sits to the immediate left of J.
(3) N's mother sits to the immediate left of N.
(4) M is the mother-in-law of Q.
(5) N is an immediate neighbour of his father.

Solution:2
(2) N's mother P sits second to the right of N. M is sister of Q. N is an immediate neighbour of L (N's sister) and M (N's daughter).

35. How is J related to K ?

(1) Sister

(2) Uncle

(3) Father

(4) Sister-in-law

(5) Daughter

Solution:4

(4) J is the wife of N. K is the brother of N. Therefore, J is the sister-in – law of K.