

50- Practice Questions

Coded Inequality

Mains Level



Questions

Directions(1-5): In the following questions, the symbols @, #, %, \$ and * are used with the following meaning as illustrated below.

- 'P @ Q' means 'P Is not smaller than Q'
- 'P # Q' means 'P is neither smaller than nor equal to Q'
- 'P % Q' means 'P is neither smaller than nor greater than Q'
- 'P \$ Q' means 'P is not greater than Q'
- 'P * Q' means 'P is neither greater than nor equal to Q'

Now in each of the following the questions assuming the given statements to be true, find which of the two conclusions a and b given below is/are definitely true?

Give answer

- a): If only conclusion a is answer
- b): If only conclusion b is answer
- c): If either conclusion a or b is answer
- d): If neither conclusion a nor b is answer
- e): If both conclusions a and b are true

1) Statements: P @ Q, Q # R, R % S

Conclusions: a) P # R b) P @ S

2) Statements: A \$ B, B * C, D % A

Conclusions: a) C # D b) D \$ B

3) Statements: # I, I @ J, J \$ K

Conclusions: a) H # J b) H # K



4) Statements: E * M, M # N, N \$ O

Conclusions: a) E * N b) M \$ O

5) Statements: Q \$ R, R % S, S @ T

Conclusions: a) Q \$ T b) R @ T

Directions (6 - 10): In the following questions, the symbols @, #, %, \$ and * are used with the following meaning as illustrated below.

A * B means A is either equal to or greater than B.

A \$ B means A is equal to B.

A # B means A is either equal to or smaller than B.

A & B means A is smaller than B.

A @ B means A is greater than B.

Based on the information provided above, answer the following questions.

a): If only conclusion a is true

b): If only conclusion b is true

c): If either conclusion a or b is true

d): If neither conclusion a nor b is true

e): If both conclusions a and b are true

6. Statements: S * A, T \$ A, A @ B

Conclusions: a) S \$ B b) S @ B

7. **Statements:** A \$ Z, H \$ P, Z * P

Conclusions: a) A & H b) A * P



8. Statements: A @ B, P @ R, P & B Conclusions: a) A @ P b) R & A

9. Statements: B & J, K * B, R * K

Conclusions: a) $K \star J$ b) R # J

10. **Statements:** J * K, M & N, K \$ M

Conclusions: a) J @ M b) J \$ M

Directions (11 - 15): In the following questions, the symbols \$, %, &, @ and # are used with the following meaning as illustrated below.

A \$ B means A is not smaller than B,

A % B means A is not greater than B,

A & B means A is neither smaller nor equal to B,

A @ B means A is neither greater nor equal to B,

A # B means A is neither smaller than nor greater than B.

11. Statements: A \$ B; B & C, C % R, R @ W

Conclusions: a. W & B b. B & W c. A % R

a) If only conclusion a is true

b) If only conclusion b is true

c) If only conclusion c is true

d) If neither conclusion a nor b nor c is true

e) If both conclusions a and b are true

12.Statements: A % B, A \$ R, B # S, R @ T

Conclusions: a. R \$ B b. S & T c. A % S



- a) If only conclusion a is true
- b) If only conclusion b is true
- c) If both conclusions a and b are true
- d) If only c is true
- e) If both conclusions b and c are true
- 13. **Statements:** K @ B; M & C, N % B, K \$ C

Conclusions: I. C @ B II. M @ B III. K # N

- a) If only conclusion a is true
- b) If only conclusion b is true
- c) If both conclusions a and b are true
- d) If only c is true
- e) If both conclusions b and c are true

14. Statements: P & Q, H # I, G \$ Q, P % D, G @ H

Conclusions: a. D \$ Q b. Q @ I c. I & G

- a) If only conclusion a is true
- b) If both conclusions a and b are true
- c) If both conclusions b and c are true
- d) If only b is true
- e) If both conclusions a and c are true

15. **Statements:** E % F; X # W; U % V; W & V; F @ X

Conclusions: a. U @ X b. W & E c. V # F



- a) If only conclusion a is true
- b) If both conclusions a and b are true
- c) If both conclusions b and c are true
- d) If only b is true
- e) If both conclusions a and c are true

Directions (16-20): In the following questions, the symbols @, ©, %, \$ and * are used with the following meaning as illustrated below.

'P \bigcirc Q' means 'P is not smaller than Q'.

'P * Q' means 'P is not greater than Q'.

- 'P @ Q' means 'P is neither greater than nor equal to Q'.
- 'P \$ Q' means 'P is neither smaller than nor equal to Q'.
- 'P % Q' means 'P is neither greater than nor smaller than Q'.

Now in each of the following question assuming the given statements to be true, find which of the conclusions given below them is/are definitely true and give your answer accordingly.

16. Statements: B \$ C, C * T, T @ N, N © D

Conclusions:

I. B \$ T	II.D * T	III.N \$ C	IV.D * C
a) Only I is true			
b) Only II is true			
c) None is true			
d) Only III is true			
e) All are true 17. Statements: P	% Z, Z © R, R	@ M, M \$ D	
Conclusions:			



I.D @ R	II.M \$ P	III.R @ D	IV.R * P	
a) Only I is true				
b) Only IV is true				
c) None is true				
d) Only III is true				
e) None of these				
18. Statements: N	1 © K, K * N, N	I \$ J, J % Y		
Conclusions:	I.M \$ N	II.J @ K	III.Y	@ N IV.K \$ Y
a) Only I and II is ti	rue			
b) Only III is true				
c) Only IV is true				
d) All are true				
e) None of these				
19. Statements: C	* D, D \$ N, N	% M, M © L		
Conclusions: I.M %	6 L II.M S	\$ L III.N @ D	IV.L @ N	
a) Only I and II is ti	rue			
b) Only III is true				
c) Only II is true				
d) All are true				
e) None of these				
20. Statements: J	@ K, K * E, V	© E, W \$ V		
Conclusions: I.W \$	E	II.J @ E	III.J @ V	IV.K\$W
a) Only I and II is ti	rue			
b) Only II and III is	true			
c) Only I, II and III	is true			



d) Only IV is true.

e) None of these

Directions (21-25): In these questions, symbols \$, *, #, % and @ are used with different meaning as follows:

'X \$ Y' means 'X is not smaller than Y.'

'X * Y' means 'X' is greater than Y'.

'X # Y' means 'X' is not greater than Y'.

'X % Y' means 'X' is smaller than Y'.

'X @ Y' means 'X is neither smaller than nor greater than Y.'

Now in each of the following question assuming the given statements to be true, find which of the conclusions given below them is/are definitely true and give your answer accordingly.

21. Statements: E * F, D %	% F, D # K, K \$ R		
Conclusions: I. E * D	II. F # K	III. K * E	IV. R @ F
a) Only I is true			
b) Only II and III is true			
c) Only IV is true			
d) Only III is true.			
e) None of these			
22. Statements: A @ B, B	\$ J, V% J, V # Z		
Conclusions: I. A * V	II. B * V	III. Z % J	IV. A @ Z
a) Only II is true			
b) Only II and III is true			
c) Only I and II is true			
d) Only III is true.			
e) None of these			



			Prepare
23. Statements: X \$ Y, Y * H, H #	¢ Τ, Ρ % Τ		
Conclusions: I. T @ X	II. H % X	III. Y @ T	IV. P # Y
a) Only I is true			
b) Only II is true			
c) Only I and II is true			
d) Only III is true.			
e) None of these			
24. Statements: F # Q, Q * R, R 9	% P, P \$ Y		
Conclusions: I. Q * Y	II. P *Y	III. Y @ P	IV. P # Q
a) Only II is true			
b) If either conclusion II or III is tr	ue		
c) Only I is true			
d) If either conclusion I or II is tru	e.		
e) None of these			
25. Statements: A # B, Q \$ B, B	@ J, J % C		
Conclusions: I. C # B	II. C @ B	III. A # J	IV. Q \$ C
a) Only II is true			
b) If either conclusion I or III and	II is true		
c) Only I is true			
d) If either conclusion I or IV and	III is true.		
e) None of these			

Directions (26-30): In the following questions, the symbols @, #, %, \$ and © are used with the following meaning as illustrated below:

'A @ B' means 'A is neither smaller than nor equal to B'.



'A #B' means 'A is neither greater than nor equal to B'.

'A % B' means 'A is not greater than B'.

'A \$ B' means 'A is not smaller than B'.

'A © B' means 'A is neither smaller than nor greater than B'.

Now in each of the following question assuming the given statements to be true, find which of the conclusions given below them is/are definitely true and give your answer accordingly.

26. Which of the following does not make A @ K and Z # K definitely not true?

a. A # Q % N © K \$ T © U \$ Z

b. A \$ Q @ N @ Z # T © K % U

c. A @ Q © N \$ K \$ T @ U © Z

d. A © Q @ N © K @ T \$ U © Z

e. None of these

27. Which of the following makes R \$ E or S % E definitely true?

a. X © S \$ R @ D % E # G

b. X # S % R \$ D @ E # G

c. X # S © R % D % E \$ G

d. X @ S % R © D # E @ G

e. None of these

28. If "M % N # O © P @ S © T \$ W" is true then which of the following is definitely not true?

(i) M # P

- (ii) O © T
- (iii) N # P
- (iv) S % W
- a. Only (i)

b. Only (ii) and (iii)



c. Only (ii) and (iv)

d. Only (i), (iii) and (iv)

e. All are true

29. What will come in place of blank in following below such that both P @ S and V % R are definitely true?

P \$ Q @ R _ S	\$ T © U \$ V			
i) @ ii) © iii) % iv) \$			
a. Only (i)				
b. Either (i) or (i	ii)			
c. Either (i) or (ii	i) or (iv)			
d. Either (ii) or (iv)			
e. All are true				
30. Statements:	R @ D, D \$ J, J # M, N	1 @ K		
Conclusions:	I. K # J	II. D @ M	III. R \$ J	IV. K @ D
a) Only II is true		-		
b) None is true		U		
c) Only I is true				
d) Only III and I	V is true			
e) None of these	e			

Directions (31-35): In the following questions the symbols #, *, @, \$ and = are used with the following meanings:

A # B means A is greater than B.

A * B means A is greater than or equal to B.



A @ B means A is equal to B.

A \$ B means A is lesser than B.

A = B means A is lesser than or equal to B.

Now in each of the following questions, assuming the three statements to be true, find which of the two conclusions I and II given below them is/are true. Give answer.

1. if only conclusion I is true

2. if only conclusion II is true

3. if either conclusion I or conclusion II is true

4. if neither conclusion I nor conclusion II is true

5. if both conclusions I and II are true.

31. Statements: A # B, I \$ A, I * L

Conclusions:

I. B # I

II. B \$ I

32. Statements: B = Z, G @ I, I # B

Conclusions:

I. G = Z

II. Z \$ G

33. Statements: P @ Q, O @ N, P # O

Conclusions:

- I. Q # N
- II. N \$ P

34. Statements: E # N # F, F # M @ J, J \$ H @ I

Conclusions:

I. I @ N



II. F @ I

35. Statements:

R * S, S @ T, T * O

Conclusions:

I. S # O

II. T # R

Directions (36-40): In the following questions, the symbols +, \times , =, \div , and - are used with the following meaning:

A + B means A is greater than B.

A ×B means A is either greater than or equal to B.

A = B means A is equal to B.

 $A \div B$ means A is smaller than B.

A - B means A is either smaller than or equal to B.

Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer

1. if only conclusion I is true

2. if only conclusion II is true

3. if either conclusion I or conclusion II is true

4. if neither conclusion I nor conclusion II is true

5. if both conclusions I and II are true.

36. Statements: C + D, E - F, $F \times C$

Conclusions: I) E + C

II) E ÷ D



37. Statements: P ÷ Q, R × F, F + Q
Conclusions: I) R + Q
II) P ÷ F

38. Statements: J × K, S + O, S - J

Conclusions: I) J + O

II) K = O

39. Statements: E ÷ F, Q × R, Q + F

Conclusions: I) F + R

II) F - R

40. Statements: P - I, $Q \times M$, M - P

Conclusions: I) P ÷ Q

II) M – I

Directions (41-45): In the questions given below, certain symbols are used with the following meaning:

P @ Q means P is greater than Q.

P + Q means P is either greater than or equal to Q.

P = Q means P is equal to Q.

P©Q means P is smaller than Q.

P - Q means P is either smaller than or equal to Q.

Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely true. Give answer



1. if only conclusion I is true

- 2. if only conclusion II is true
- 3. if either conclusion I or conclusion II is true
- 4. if neither conclusion I nor conclusion II is true
- 5. if both conclusions I and II are true.

41. Statements: C @ E, F © D, D - C

Conclusions: I) E @ D

II) C @ F

42. Statements: L @ M, N = L, M - O

Conclusions: I) N © O

II) N @ O

43. Statements: V = W, Q + V, W @ X
Conclusions: I) Q = X
II) Q @ X

44. Statements: A + B, C - D, D + AConclusions: I) C = AII) D = B

45. Statements: I + J, K @ L, I = L
Conclusions: I) K @ I
II) J © K

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Directions (46-50): In the following questions, the symbols @, ^, *, # and ! used with the following meaning as illustrated below:

'Q ^ R' means 'Q is not smaller than R'

'Q@R' means 'Q is neither smaller than nor equal to R'

'Q # R' means 'Q is neither greater than nor equal to R'

'Q % R means "Q is neither greater than nor smaller than R'

'Q !R' means 'Q is not greater than R'

Now, in each of the following questions assuming the given statements to be true, find which of the four conclusions I, II, III and IV is/are definitely true and give your answer accordingly.

46. Statements: A ! D ^ E @ G # H

Conclusions: I. D @ G II. A@ H

III. A ! H IV. E # D

- 1. Only I is true
- 2. Only III is true
- 3. Only IV is true
- 4. Only either III or IV is true
- 5. Only either III or II and I are true
- 47. Statements: E ! D, D ^ I, I # F, F @ L

Conclusions: I. L # I II. F @ D III. E # D IV. D@ L

- 1. None is true
- 2. Only I is true
- 3. Only II is true
- 4. Only III is true
- 5. Only IV is true
- 48. Statements: W ! X ^ Y @ U # Z



Conclusions: I. X ! W II. U # Y III. Y @ Z IV. X @ W
1. Only II is true
2. Only I, II and IV are true
3. Only II, III and IV are true
4. Only I, III and IV are true
5. All I, II, III and IV are true
49. Statements: R ! T, T ^ U, U # S, S @ J
Conclusions: I. R @ T II. T ^ R III. U ! J IV. S % T
1. None is true
2. Either I or II is true
3. Only II is true
4. Only III is true
5. Only IV is true
50. Statements: A ^ Z, Z @ Y, Y ! B, B # C
Conclusions: I. Y # C II. A ^ B III. Z @ C IV. A @ Y
1. Only I and II are true
2. Only I is true
3. Only III and IV are true
4. Only III is true
5. Only I and IV is true

Explanations



Correct Option

1-A

Explanation: P @ Q, Q # R, R % S \rightarrow P \geq Q, Q > R, R = S \rightarrow P \geq Q > R = S

Conclusion a \rightarrow P # R \rightarrow P > R

The relation between P and R in the statement $P \ge Q > R = S$: P > R. So, it is true.

Conclusion b \rightarrow P@ S \rightarrow P \geq S

The relation between P and S in the statement $P \ge Q > R = S$: P > S. So, it is not true. ($P > R = S \rightarrow P > S$)

2-E

Explanation: A \$ B, B * C, D % A \rightarrow A \leq B, B < C, D < A \rightarrow D < A \leq B < C

Conclusion a \rightarrow C # D \rightarrow C >D

The relation between C and D in the statement $D < A \le B < C$: D<C. So, it is true.

Conclusion $b \rightarrow D \ B \rightarrow D \le B$

The relation between D and B in the statement $D < A \le B < C$: $D \le B$. So, it is true.

3-A

Explanation: H # I, I @ J, J \$ K \rightarrow H > I, I \geq J, J \leq K \rightarrow H > I \geq J \leq K

Conclusion $a \rightarrow H \# J \rightarrow H > J$ The relation between H and J in the statement $H > I \ge J \le K : H > J$. So, it is true.

Conclusion $b \rightarrow H \# K \rightarrow H > K$ The relation between H and K in the statement $H > I \ge J \le K : H > K$ or no relation between H and K. So, it is not true

4-D

Explanation: L * D, D # O, O $J \rightarrow L < D$, D > O, O $J \rightarrow L < D > O \le J$

Conclusion $a \rightarrow L * O \rightarrow L < O$ The relation between L and O in the statement L < D > O ≤ J: L = O or L > O or L < O. So, it is not true.

Conclusion b \rightarrow D $\ J \rightarrow$ D \leq J



The relation between D and J in the statement $L < D > O \le J$: D = J or D > J or D < J. So, it is not true.

5-B

Explanation: Q \$ R, R % S, S @ T \rightarrow Q \leq R, R = S, S \geq T \rightarrow Q \leq R = S \geq T

Conclusion $a \rightarrow Q \ T \rightarrow Q \le T$ The relation between Q and T in the statement $Q \le R = S \ge T : Q$ = T or Q > T or Q < T. So, it is not true.

Conclusion $b \rightarrow R @ T \rightarrow R \ge T$ The relation between R and T in the statement $Q \le R = S \ge T : R \ge T$. So, it is true.

6-B

Given statements: S * A, T \$ A, A @ B

After converting: $S \ge A$, T = A, A > B

After combining: $S \ge A = T > B$

Conclusion $a \rightarrow S \ B \rightarrow S = B$ The relation between S and B in the statement $S \ge A = T > B$: S = B

So, it is not true.

Conclusion $b \rightarrow S @ B \rightarrow S > B$ The relation between S and B in the statement $S \ge A = T > B:S>B$. So, it is true.

7-b

Given statements: A \$ Z, H \$ P, Z * P

After converting: $A = Z, H = P, Z \ge P$

After combining: $A = Z \ge P = H$

Conclusion a \rightarrow A & H \rightarrow A < H The relation between A and H in the statement A = Z \geq P = H: A < H

So, it is not true.

Conclusion $b \rightarrow A \star P \rightarrow A \ge P$ The relation between A and P in the statement $A = Z \ge P = H$: $A \ge P$. So, it is true.



8-е

Given statements: A @ B, P @ R, P& B After converting: A > B, P > R, P < BAfter combining: A > B > P > RConclusion $a \rightarrow A$ @ P $\rightarrow A > P$ The relation between A and P in the statement A > B > P > R: A > PSo, it is true. Conclusion $b \rightarrow R & A \rightarrow R < A$ The relation between R and A in the statement A > B > P > R: R < A. So, it is also true.

9-d

Given statements: B & J, K * B, R * K

After converting: B <J, K≥B, R≥K

After combining: $R \ge K \ge B < J$

Conclusion $a \rightarrow K \star J \rightarrow K \ge J$ The relation between K and J in the statement $R \ge K \ge B < J$: $K \ge J$

As there is no relation between K and J. So, it is not true.

Conclusion $b \rightarrow R \# J \rightarrow R \le J$ The relation between R and J in the statement $R \ge K \ge B < J$:

 $R \leq J$. As there is no relation between R and J. So, it is also not true.

10-с

given statements: J * K, M & N, K \$ M

After converting: J≥K, M<N, K=M

After combining: $J \ge K = M < N$

Conclusion a \rightarrow J @ M \rightarrow J >M The relation between J and M in the statement J \geq K = M < N: J > M

As the relation between J and M is $J \ge M$. So, it can be true.

Conclusion b \rightarrow J \$ M \rightarrow J=M The relation between J and M in the statement J \geq K = M < N:

J≥M. So, it can be true.



11-d

given statements: A \$ B; B & C, C % R, R @ W

After converting: $A \ge B$, B > C, $C \le R$, R < W

After combining: $A \ge B > C \le R < W$

Conclusion a \rightarrow W&B \rightarrow W > B There is no relation between W and B in the statement A \geq B > C \leq R < W so, it is not true.

Conclusion $b \rightarrow B \& W \rightarrow B > B$ There is no relation between B and W in the statement $A \ge B > C \le R < W$. So, it is not true.

Conclusion $c \rightarrow A \% R \rightarrow A \le R$ There is no relation between A and R in the statement $A \ge B > C \le R < W$. So, it is not true.

12-d

given statements: A % B, A \$ R, B # S, R @ T

After converting: $A \le B$, $A \ge R$, B = S, R < T

After combining: $T > R \le A \le B = S$

Conclusion $a \rightarrow R \ B \rightarrow R \ge B$, It cannot be true as $T > R \le A \le B = S$. As $B \ge R$ so, it is not true.

Conclusion b \rightarrow S & T \rightarrow S>T There is no relation between S and T in the statement T > R \leq A \leq B = S. So, it is not true.

Conclusion $c \rightarrow A \% S \rightarrow A \leq S$ It is true in the statement $T > R \leq A \leq B = S$. So, it is true.

13-a

given statements: K @ B; M & C, N % B, K \$ C

After converting: K<B, M>C, N≤B, K ≥C

After combining: $M > C \le K \le B \ge N$

Conclusion $a \rightarrow C@B \rightarrow C < B$, It is true as $M > C \le K < B \ge N$.

Conclusion b \rightarrow M @ B \rightarrow M <B There is no relation between M and B in the statement M > C \leq K < B \geq N. So, it is not true.



Conclusion $c \rightarrow K \# N \rightarrow K=N$ There is no relation between K and N in the statement $M > C \le K \le B \ge N$. So, it is not true.

14-с

given statements: P & Q, H # I, G \$ Q, P % D, G @ H

After converting: P > Q, H = I, $G \ge Q$, $P \le D$, $G \le H$

After combining: $D \ge P > Q \le G < H = I$

Conclusion $a \rightarrow D \ Q \rightarrow D \ge Q:D \ge P$ and $P > Q \rightarrow D > Q$ so It is not true.

Conclusion b \rightarrow Q @ I \rightarrow Q < I:Q ≤ G, G < H and H = I \rightarrow Q < I so, it is true.

Conclusion $c \rightarrow I \& G \rightarrow I > G$: I = H, and $H > G \rightarrow I > G$ so, it is true.

15-b

given statements: E % F; X # W; U % V; W & V; F @ X

After converting: $E \le F$, X = W, $U \le V$, W > V, F < X

After combining: $E \le F < X = W > V \ge U$

Conclusion $a \rightarrow U @ X \rightarrow U < X (U \le V, V < W and W = X \rightarrow U < X)$ so it is true.

Conclusion b \rightarrow W & E \rightarrow W >E (W = X, X > F and F \geq E \rightarrow W > E) so, it is true.

Conclusion $c \rightarrow V \# F \rightarrow V=F$ There is no relation between V and F in the statement $E \le F < X = W$ > V ≥ U so, it is not true.

16-d

given statements: B \$ C, C * T, T @ N, N © D

After converting: $B > C, C \le T, T < N, N \ge D$

After combining: $B > C \le T < N \ge D$

Conclusion a \rightarrow B \$ T \rightarrow B > T (B > C \leq T) No relationship can be established between B and T so, it is not true.

Conclusion b \rightarrow D * T \rightarrow D \leq T (T< N \geq D) No relationship can be established between D and T so, it is not true.



Conclusion $c \rightarrow N \ C \rightarrow N > C \ (C \leq T < N)$, it is true.

Conclusion d \rightarrow D * C \rightarrow D \leq C (C \leq T< N \geq D) No relationship can be established between D and C so, it is not true.

17-b

given statements: P % Z, Z © R, R @ M, M \$ D

After converting: $P = Z, Z \ge R, R < M, M > D$

After combining $=Z \ge R < M > D$

Conclusion a \rightarrow D @ R \rightarrow D < R (R < M> D) No relationship can be established between D and R so, it is not true.

Conclusion b \rightarrow M \$ P \rightarrow M > P (P =Z ≥ R < M) No relationship can be established between M and P so, it is not true.

Conclusion c \rightarrow R @ D \rightarrow R < D(R < M> D) No relationship can be established between D and R so, it is not true.

Conclusion $d \rightarrow R^* P \rightarrow R \leq P (P = Z \geq R)$, it is true

1**8-b**

given statements: M © K, K * N, N \$ J, J % Y

After converting: $M \ge K$, $K \le N$, N > J, J = Y

After combining: $M \ge K \le N > J = Y$

Conclusion a \rightarrow M \$ N \rightarrow M > N (M ≥K ≤ N) No relationship can be established between M and N so, it is not true.

Conclusion b \rightarrow J @ K \rightarrow J < K (K \leq N> J) No relationship can be established between J and K so, it is not true.

Conclusion $c \rightarrow Y @ N \rightarrow Y < N (N > J = Y)$, it is true.

Conclusion d \rightarrow K \$ Y \rightarrow K > Y (K \leq N> J = Y), No relationship can be established between K and Y so, it is not true.

19-d

given statements: C * D, D \$ N, N % M, M © L



After converting: $C \le D$, D > N, N = M, $M \ge L$

After combining: $C \le D > N = M \ge L$

Conclusion $c \rightarrow N @ D \rightarrow N < D (D > N)$, it is true.

Conclusion $d \rightarrow L @ N \rightarrow L \leq N (N = M \geq L)$, it is true.

20-с

given statements: J @ K, K * E, V © E, W \$ V

After converting: $J < K, K \le E, V \ge E, W > V$

After combining: $J < K \le E \le V < W$

Conclusion $a \rightarrow W \ E \rightarrow W > E \ (E \le V \le W)$ it is true.

Conclusion b \rightarrow J @ E \rightarrow J < E (J < K \leq E), it is true.

Conclusion $c \rightarrow J \otimes V \rightarrow J \leq V (J \leq K \leq E \leq V)$, it is true.

Conclusion d \rightarrow K \$ W \rightarrow K > W (K \leq E \leq V \leq W), it is not true.

21-a

given statements: E * F, D % F, D # K, K \$ R

After converting: E > F, D < F, $D \le K$, $K \ge R$

After combining: $E > F > D \le K \ge R$

Conclusion $a \rightarrow E * D \rightarrow E > D$ (E > F > D), it is true.

Conclusion b \rightarrow F # K \rightarrow F \leq K (F > D \leq K) No relationship can be established between F and K so, it is not true.

Conclusion $c \rightarrow K * E \rightarrow K > E$ (E > F > D ≤ K), No relationship can be established between K and E so, it is not true.

Conclusion d \rightarrow R @ F \rightarrow R = F (F > D \leq K \geq R), No relationship can be established between R and F so, it is not true.



24



given statements: A @ B, B \$ J, V % J, V # Z

After converting: $A = B, B \ge J, V < J, V \le Z$

After combining: $A = B \ge J > V \le Z$

Conclusion $a \rightarrow A^* V \rightarrow A > V (A = B \ge J > V)$, it is true.

Conclusion $b \rightarrow B * V \rightarrow B > V (B \ge J > V)$ it is true.

Conclusion c \rightarrow Z % J \rightarrow Z < J (J> V \leq Z), No relationship can be established between J and Z so, it is not true.

Conclusion d \rightarrow A @ Z \rightarrow A = Z (A = B \geq J> V \leq Z), No relationship can be established between A and Z so, it is not true.

23-b

given statements: X \$ Y, Y * H, H # T, P % T

After converting: $X \ge Y$, Y > H, $H \le T$, P < T

After combining: $X \ge Y > H \le T > P$

Conclusion a \rightarrow T @ X \rightarrow T = X (X \ge Y > H \le T), No relationship can be established between T and X so, it is not true.

Conclusion b \rightarrow H % X \rightarrow H < X (X \geq Y > H) it is true.

Conclusion c \rightarrow Y @ T \rightarrow Y = T (Y > H \leq T), No relationship can be established between Y and T so, it is not true.

Conclusion d \rightarrow P # Y \rightarrow P \leq Y (Y > H \leq T > P), No relationship can be established between P and Y so, it is not true.

24-b

given statements: F # Q, Q * R, R % P, P \$ Y

After converting: $F \le Q, Q > R, R < P, P \ge Y$

After combining: $F \le Q > R < P \ge Y$

Conclusion a \rightarrow Q * Y \rightarrow Q > Y (Q > R < P ≥ Y), No relationship can be established between Q and Y so, it is not true.

Conclusion $b \rightarrow P^*Y \rightarrow P > Y (P \ge Y)$ it will make an either case, and conclusion III also is true.



Conclusion d \rightarrow P # Q \rightarrow P \leq Q (Q > R < P), No relationship can be established between P and Q so, it is not true.

25-d

given statements: A # B, Q \$ B, B @ J, J % C

After converting: $A \le B$, $Q \ge B$, B = J, J < C

After combining: $A \le B \le Q$, B = J < C

Conclusion a \rightarrow C @ B \rightarrow C = B (B = J < C), it is not true but it will make an either case with conclusion d.

Conclusion $b \rightarrow A \# J \rightarrow A \leq J (A \leq B = J)$ it is true.

Conclusion $c \rightarrow Q \ C \rightarrow Q \ge C$ ($Q \ge B = J < C$), No relationship can be established between Q and C so, it is not true.

26-а

Explanation; a - A # Q % N © K \$ T © U \$ $Z \rightarrow A < Q \le N = K \ge T = U \ge Z$, in this A @ K = A > K and Z # K = Z < K, it will hold the condition true.

b - A \$ Q @ N @ Z # T © K % U \rightarrow A ≥ Q > N > Z < T = K ≤ U, in this A @ K = A > K, not follows and Z # K = Z < K, follows but it will not hold the condition true.

c - A @ Q © N \$ K \$ T @ U © Z \rightarrow A > Q = N ≥ K ≥ T > U = Z, in this A @ K = A > K, follows and Z # K = Z < K, follows but it will not hold the condition true.

d- A © Q @ N © K @ T \$ U © Z \rightarrow A = Q > N = K > T \geq U = Z, in this A @ K = A > K, follows and Z # K = Z < K, follows but it will not hold the condition true.

27-с

a - X © S \$ R @ D % E # G \rightarrow X = S ≥ R > D ≤ E < G, in this R \$ E = R ≥ E and S % E = S ≤ E, it is not true.

b - X # S % R \$ D @ E # G → X < S ≤ R ≥ D > E < G, in this R \$ E = R ≥ E not follows and S % E = S ≤ E, not follows.

c - X # S © R % D % E \$ G → X < S = R ≤ D ≤ E ≥ G, in this R \$ E = R ≥ E, not follows and S % E = S ≤ E, follows.



d- X @ S % R © D # E @ G \rightarrow X > S \leq R = D < E > G, in this R \$ E = R \geq E, not follows and S % E = S \leq E, not follows.

28-с

 $\mathsf{M} \le \mathsf{N} < \mathsf{O} = \mathsf{P} > \mathsf{S} = \mathsf{T} \ge \mathsf{W}$

(i) $M \# P \rightarrow M \le P$ ($M \le N \le O = P$) it is true.

(ii) $O \otimes T \rightarrow O = T (O = P > S = T)$ it is not true.

(iii) N # P \rightarrow N < P (N< O = P) it is true.

(iv) S % W \rightarrow S \leq W (S = T \geq W) it is not true.

29-d

Exp-

P \$ Q @ R _ S \$ T © U \$ V

After combining-

P \$ Q @ R© S \$ T © U \$ V

P \$ Q @ R \$ S \$ T © U \$ V

Hence option d is true

<u> 30-b</u>

given statements: R @ D, D \$ J, J # M, M @ K

After converting: $R > D, D \ge J, J < M, M > K$

After combining $: R > D \ge J < M > K$

Conclusion a \rightarrow K # J \rightarrow K < J(J< M> K), No relationship can be established between K and J so, it is not true.

Conclusion b \rightarrow D @ M \rightarrow D > M(D ≥ J< M)No relationship can be established between D and M so, it is not true.

Conclusion $c \rightarrow R \ J \rightarrow R \ge J(R > D \ge J)$, it is not true



Conclusion d \rightarrow K @ D \rightarrow K > D(D \geq J< M> K),No relationship can be established between K and D so, it is not true.

31-d

Sol.

On converting: $L \le I < A > B$

Conclusion 1- B # I means B > I is false

Conclusion 2- B \$ I means B < I is false

Hence neither conclusion I nor conclusion II is true

32-с

Sol.

On converting: $G = I > B \le Z$

Conclusion 1- G = Z means $G \le Z$ is false

Conclusion 2- Z \$ G means Z < G is false

Hence either conclusion I or conclusion II is true

33-е

Sol.

On converting: N = O < P = QConclusion 1- Q # N means Q > N is true

Conclusion 2- N \$ P means N < P is true

Hence both conclusions I and II are true.

34-d

Sol.

On converting: E > N > F > M = J < H = I



Conclusion 1- I @ N means I = N is false

Conclusion 2- F @ I means F = I is false

Hence neither conclusion I nor conclusion II is true

35-d

Sol.

On converting: $R \ge S = T \ge O$ Conclusion 1- S # O means S > O is false Conclusion 2- T # R means T > R is false Hence neither conclusion I nor conclusion II is true

36-d

Sol.

On converting: $E \le F \ge C > D$ Conclusion I- E + C means E > C is false Conclusion II- E ÷ D means E < D is false Hence neither I nor II is true.

37-е

Sol. On converting: $P < Q < F \le R$ Conclusion I- R + Q means R > Q is true Conclusion II- P ÷ F means P < F is true Hence both I and II are true.

38-a

ixam Bee

Sol.

On converting: $O < S \le J \ge K$ Conclusion I- J + O means J > O is true Conclusion II- K = O means K = O is false Hence only conclusion I is true.

<mark>39-с</mark>

Sol.

On converting: $E < F < Q \ge R$ Conclusion I- F + R means F > R is false Conclusion II- F – R means F \le R is false

Hence either I or II is true.

40-b

Sol. On converting: $Q \ge M \le P \le I$ Conclusion I- P ÷ Q means P < Q is false Conclusion II- M – I means M \le I is true Hence only conclusion II is true.

41-b

Sol. On converting: $F < D \le C > E$ Conclusion I- E @ D means E > D is false Conclusion II- C @ F means C > F is true Hence only conclusion II is true



42-d

Sol.

On converting: $N = L > M \le O$

Conclusion I)- N \odot O means N < O is false

II) N @ O means N > O is false

Hence neither 1 nor II is true

43-b

On converting: $Q \ge V = W > X$ Conclusion I- Q = X means Q = X is false Conclusion II- Q @ X means Q > X is true Hence only conclusion II is true

44-d

Sol. On converting: $C \le D \ge A \ge B$ Conclusion I- C = A means C = A is false Conclusion II- D = B means D = B is false Hence neither 1 nor II is true

45-е

Sol.

On converting: $K > L = I \ge J$



Conclusion I- K @ I means K > I is true

Conclusion II- J © K means J < K is true

Hence both I and II are true

46-е

Decoded Statement: $A \le D \ge E > G < H$				
Decoded conclusion: I.	D > G	II. A > H	III. A ≤ H	IV. E < D
$A \le D \ge E > G < H$		D > G. Hence conclusion	n I is true.	
$A \le D \ge E > G < H$ make a complementary	pair. Hence	No relationship can be e either conclusion II or III i		nd H but it will
$A \le D \ge E > G < H$		$D \ge E$. Hence conclusion	n III is not true.	
			5	
47-а				
Decoded Statement: E	≤ D, D ≥ I, I <	< F, F > L		
Decoded conclusion: I. IV. D > L	L < I	II. F > D	III. E < D	
$E \le D \ge I < F > L$ is not true.	No relation	ship can be established b	petween L and I. Hence	conclusion I
$E \le D \ge I < F > L$ is not true.	No relation	ship can be established b	between F and D. Hence	e conclusion II
E≤D≥I <f>L</f>	E ≤ D. Hend	ce conclusion III is not tru	e.	
$E \le D \ge I < F > L$ is not true.	No relations	hip can be established be	etween D and L. Hence	conclusion IV

48-a

Decoded Statement: $W \le X \ge Y > U < Z$			
Decoded conclusion: I. $X \le W$	II. U < Y	III. Y > Z	IV. X > W



IV. S =

III. U ≤ J

$W \le X \ge Y > U < Z$	$X \ge W$. Hence conclusion I is not true.
$W \le X \ge Y > U < Z$	U > Y. Hence conclusion II is true.
$W \le X \ge Y > U < Z$ conclusion III is not true.	No relationship can be established between Y and Z. Hence
$W \le X \ge Y > U < Z$	$X \leq W$. Hence conclusion IV is not true.

49-с

Decoded Statement: F	R ≤ T, T ≥ U, U < S, S	\$ > J
Decoded conclusion:	I. R > T	II. T ≥ R

Т

$R \le T \ge U < S > J$	$R \leq T$. Hence conclusion I is not true.
R ≤ T ≥ U < S > J	$R \leq T$. Hence conclusion II is true.
$R \le T \ge U < S > J$ conclusion III is not true.	No relationship can be established between U and J. Hence

 $R \leq T \geq U < S > J$ No relationship can be established between S and T. Hence conclusion IV is not true.

50-е

Decoded Statement: A ≥ 2	Z, Z > Y, Y	≤ B, B < C		
Decoded conclusion: I. Y Y	< C	II. A ≥ B	III. Z > C	IV. A >
$A \ge Z > Y \le B < C$		C > Y. Hence conclusio	on I is true.	
$A \ge Z > Y \le B \le C$ conclusion II is not true.	No relation	onship can be established	d between A and B. Hence	
$A \ge Z > Y \le B < C$ conclusion III is not true.	No relation	onship can be established	d between Z and C. Hence	
$A \ge Z > Y \le B < C$	A > Y. H	ence conclusion IV is true) .	

