## ixam $\mathrm{Bec}^{\circ}{ }^{\circ}$ <br> 三Prepare 50\% Faster <br> 50- Practice Questions <br> Coded Inequality <br> 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 $\quad$ 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
$\begin{array}{ll}\text { Conclusions: a) E * N } & \text { b) } \mathrm{M} \$ \mathrm{O}\end{array}$
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) $\mathrm{S} @ \mathrm{~B}$
7. Statements: A \$ Z, H \$ P, Z * P
Conclusions:
a) $\mathrm{A} \& \mathrm{H}$
b) A * $P$
8. Statements: A @ B, P @ R, P \& B
Conclusions:
a) $\mathrm{A} @ \mathrm{P}$
b) $R \& A$
9. Statements: $B \& J, K \star B, R \star K$
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 $\quad$ b. S\& $T \quad$ c. A \% S

## Coded Inequality

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

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.
' $P$ © $Q$ ' 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:

## Coded Inequality

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: M © K, K * N, N \$ J, J \% Y
Conclusions:
I.M \$ N
II.J @ K
III.Y@ N IV.K \$ Y
a) Only I and II is true
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 \% L II.M \$ L III.N @ D IV.L @ N
a) Only I and II is true
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 true
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
23. Statements: X \$ Y, Y * H, H \# T, P \% T

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 \% 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 true
c) Only I is true
d) If either conclusion I or II is true.
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 $B$ '.

## Coded Inequality

' $A$ \# $B$ ' 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 $\mathrm{A} @ \mathrm{~K}$ and Z \# K definitely not true?
a. A \# Q \% N © K \$ © © \$ 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 " $\mathrm{M} \% \mathrm{~N} \# \mathrm{O}$ © 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 \$ © U \$ V
i) @ ii) © iii) \% iv) \$
a. Only (i)
b. Either (i) or (iii)
c. Either (i) or (ii) or (iv)
d. Either (ii) or (iv)
e. All are true
30. Statements: R @ D, D \$ J, J \# M, M @ K

Conclusions: I. K \# J II. D @ M III.R \$ J IV.K @ D
a) Only II is true
b) None is true
c) Only I is true
d) Only III and IV is true
e) None of these

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

Conclusions:
I. B \# I
II. B \$
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 $+, x,=, \div$, and - are used with the following meaning:
$A+B$ means $A$ is greater than $B$.
$A \times B$ 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.
6. Statements: C + D, E - F, F × C

Conclusions: I) E + C
II) $E \div D$
37. Statements: $P \div Q, R \times F, F+Q$

Conclusions: I) $R+Q$
II) $P \div F$
38. Statements: $J \times K, S+O, S-J$

Conclusions: I) J + O
II) $\mathrm{K}=\mathrm{O}$
39. Statements: $\mathrm{E} \div \mathrm{F}, \mathrm{Q} \times \mathrm{R}, \mathrm{Q}+\mathrm{F}$

Conclusions: I) F + R
II) $F-R$
40. Statements: $P-I, Q \times M, M-P$

Conclusions: I) $\mathrm{P} \div \mathrm{Q}$
II) $M$ - I

Directions (41-45): In the questions given below, certain symbols are used with the following meaning:
$\mathrm{P} @ \mathrm{Q}$ 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 $Q$.
$\mathrm{P}-\mathrm{Q}$ 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

## Coded Inequality

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.
6. Statements: C @ E, F © D, D - C

Conclusions: I) E @ D
II) C @ F
42. Statements: $\mathrm{L} @ \mathrm{M}, \mathrm{N}=\mathrm{L}, \mathrm{M}-\mathrm{O}$

Conclusions: I) N © O
II) $\mathrm{N} @ \mathrm{O}$
43. Statements: V = W, Q + V, W @ X

Conclusions: I) $\mathrm{Q}=\mathrm{X}$
II) Q @ X
44. Statements: $A+B, C-D, D+A$

Conclusions: I) $\mathrm{C}=\mathrm{A}$
II) $\mathrm{D}=\mathrm{B}$
45. Statements: I + J, K @ L, I = L

Conclusions: I) K @ I
II) J © K

Directions (46-50): In the following questions, the symbols @, $\wedge,{ }^{*}$, \# 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
6. 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
6. Statements: W ! X ^ Y @ U \# Z

## Coded Inequality

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
6. 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
6. Statements: $A^{\wedge} Z, Z$ @ $Y, Y$ ! 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 $P \geq Q>R=S$ : $P>R$. So, it is true.
Conclusion $\mathrm{b} \rightarrow \mathrm{P} @ \mathrm{~S} \rightarrow \mathrm{P} \geq \mathrm{S}$
The relation between $P$ and $S$ in the statement $P \geq Q>R=S$ : $P>S$. So, it is not true. $(P>R=S$ $\rightarrow P>S$ )

## 2-E

Explanation: $\mathrm{A} \$ \mathrm{~B}, \mathrm{~B} * \mathrm{C}, \mathrm{D} \% \mathrm{~A} \rightarrow \mathrm{~A} \leq \mathrm{B}, \mathrm{B}<\mathrm{C}, \mathrm{D}<\mathrm{A} \rightarrow \mathrm{D}<\mathrm{A} \leq \mathrm{B}<\mathrm{C}$
Conclusion $\mathrm{a} \rightarrow \mathrm{C} \# \mathrm{D} \rightarrow \mathrm{C}>\mathrm{D}$
The relation between C and D in the statement $\mathrm{D}<\mathrm{A} \leq \mathrm{B}<\mathrm{C}$ : $\mathrm{D}<\mathrm{C}$. So, it is true.
Conclusion $\mathrm{b} \rightarrow \mathrm{D} \$ \mathrm{~B} \rightarrow \mathrm{D} \leq \mathrm{B}$
The relation between D and B in the statement $\mathrm{D}<\mathrm{A} \leq \mathrm{B}<\mathrm{C}$ : $\mathrm{D} \leq \mathrm{B}$. So, it is true.

## 3-A

Explanation: H \# I, I @J, J \$ K $\rightarrow \mathrm{H}>\mathrm{I}, \mathrm{I} \geq \mathrm{J}, \mathrm{J} \leq \mathrm{K} \rightarrow \mathrm{H}>\mathrm{I} \geq \mathrm{J} \leq \mathrm{K}$
Conclusion $\mathrm{a} \rightarrow \mathrm{H} \# \mathrm{~J} \rightarrow \mathrm{H}>\mathrm{J}$ The relation between H and J in the statement $\mathrm{H}>\mathrm{I} \geq \mathrm{J} \leq \mathrm{K}: \mathrm{H}>\mathrm{J}$. So, it is true.

Conclusion $\mathrm{b} \rightarrow \mathrm{H} \# \mathrm{~K} \rightarrow \mathrm{H}>\mathrm{K}$ The relation between H and K in the statement $\mathrm{H}>\mathrm{I} \geq \mathrm{J} \leq \mathrm{K}: \mathrm{H}>$ K or no relation between H and K . So, it is not true

4-D
Explanation: L * D, D \# O, O \$ J $\rightarrow \mathrm{L}<\mathrm{D}, \mathrm{D}>\mathrm{O}, \mathrm{O} \leq \mathrm{J} \rightarrow \mathrm{L}<\mathrm{D}>\mathrm{O} \leq \mathrm{J}$
Conclusion $\mathrm{a} \rightarrow \mathrm{L}$ * $\mathrm{O} \rightarrow \mathrm{L}<\mathrm{O}$ The relation between L and O in the statement $\mathrm{L}<\mathrm{D}>\mathrm{O} \leq \mathrm{J}: \mathrm{L}=\mathrm{O}$ or $\mathrm{L}>\mathrm{O}$ or $\mathrm{L}<\mathrm{O}$. So, it is not true.

Conclusion $\mathrm{b} \rightarrow \mathrm{D} \$ \mathrm{~J} \rightarrow \mathrm{D} \leq \mathrm{J}$

The relation between D and J in the statement $\mathrm{L}<\mathrm{D}>\mathrm{O} \leq \mathrm{J}: \mathrm{D}=\mathrm{J}$ or $\mathrm{D}>\mathrm{J}$ or $\mathrm{D}<\mathrm{J}$. 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 $a \rightarrow Q \$ T \rightarrow Q \leq T$ The relation between $Q$ and $T$ in the statement $Q \leq R=S \geq T: Q$ $=T$ or $Q>T$ or $Q<T$. So, it is not true.

Conclusion $b \rightarrow R @ T \rightarrow R \geq T$ The relation between $R$ and $T$ in the statement $Q \leq R=S \geq T: R$ $\geq \mathrm{T}$. So, it is true.

## 6-B

Given statements: S * A, T \$ A, A @ B
After converting: $S \geq A, T=A, A>B$
After combining: $S \geq A=T>B$
Conclusion $a \rightarrow S \$ B \rightarrow S=B$ The relation between $S$ and $B$ in the statement $S \geq A=T>B: S=B$ So, it is not true.

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

## 7-b

Given statements: A \$ Z, H \$ P, Z * P
After converting: $A=Z, H=P, Z \geq P$
After combining: $\mathrm{A}=\mathrm{Z} \geq \mathrm{P}=\mathrm{H}$
Conclusion $\mathrm{a} \rightarrow \mathrm{A} \& \mathrm{H} \rightarrow \mathrm{A}<\mathrm{H}$ The relation between A and H in the statement $\mathrm{A}=\mathrm{Z} \geq \mathrm{P}=\mathrm{H}: \mathrm{A}<$ H

So, it is not true.
Conclusion $b \rightarrow A \star P \rightarrow A \geq P$ The relation between $A$ and $P$ in the statement $A=Z \geq P=H: A \geq P$. So, it is true.

8-e
Given statements: A @ B, P @ R, P\& B
After converting: $\mathrm{A}>\mathrm{B}, \mathrm{P}>\mathrm{R}, \mathrm{P}<\mathrm{B}$
After combining: $\mathrm{A}>\mathrm{B}>\mathrm{P}>\mathrm{R}$
Conclusion $a \rightarrow A @ P \rightarrow A>P$ The relation between $A$ and $P$ in the statement $A>B>P>R: A>P$ So, 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: $B$ \& $J, K \star B, R \star K$
After converting: $B<J, K \geq B, R \geq K$
After combining: $R \geq K \geq B<J$
Conclusion $\mathrm{a} \rightarrow \mathrm{K} \star \mathrm{J} \rightarrow \mathrm{K} \geq \mathrm{J}$ The relation between K and J in the statement $\mathrm{R} \geq \mathrm{K} \geq \mathrm{B}<\mathrm{J}: \mathrm{K} \geq \mathrm{J}$
As there is no relation between K and J . So, it is not true.
Conclusion $b \rightarrow R \# J \rightarrow R \leq J$ The relation between $R$ and $J$ in the statement $R \geq K \geq B<J$ :
$R \leq J$. As there is no relation between $R$ and $J$. So, it is also not true.

10-c
given statements: J * $\mathrm{K}, \mathrm{M}$ \& $\mathrm{N}, \mathrm{K} \$ \mathrm{M}$
After converting: $\mathrm{J} \geq \mathrm{K}, \mathrm{M}<\mathrm{N}, \mathrm{K}=\mathrm{M}$
After combining: $\mathrm{J} \geq \mathrm{K}=\mathrm{M}<\mathrm{N}$
Conclusion $\mathrm{a} \rightarrow \mathrm{J} @ \mathrm{M} \rightarrow \mathrm{J}>\mathrm{M}$ The relation between J and M in the statement $\mathrm{J} \geq \mathrm{K}=\mathrm{M}<\mathrm{N}: \mathrm{J}>$ M

As the relation between J and M is $\mathrm{J} \geq \mathrm{M}$. So, it can be true.
Conclusion $\mathrm{b} \rightarrow \mathrm{J} \$ \mathrm{M} \rightarrow \mathrm{J}=\mathrm{M}$ The relation between J and M in the statement $\mathrm{J} \geq \mathrm{K}=\mathrm{M}<\mathrm{N}$ :
$J \geq$ M. So, it can be true.

## 11-d

given statements: A \$ B; B \& C, C \% R, R @ W
After converting: $A \geq B, B>C, C \leq R, R<W$
After combining: $\mathrm{A} \geq \mathrm{B}>\mathrm{C} \leq \mathrm{R}<\mathrm{W}$
Conclusion $a \rightarrow W \& B \rightarrow W>B$ There is no relation between $W$ and $B$ in the statement $A \geq B>C \leq$ $\mathrm{R}<\mathrm{W}$ so, it is not true.

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

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

12-d
given statements: A \% B, A \$ R, B \# S, R @ T
After converting: $A \leq B, A \geq R, B=S, R<T$
After combining: $T>R \leq A \leq B=S$
Conclusion $a \rightarrow R \$ B \rightarrow R \geq B$, It cannot be true as $T>R \leq A \leq B=S$. As $B \geq R$ so, it is not true.
Conclusion $b \rightarrow S \& T \rightarrow S>T$ There is no relation between $S$ and $T$ in the statement $T>R \leq A \leq B$ $=\mathrm{S}$. 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: $\mathrm{K} @ \mathrm{~B} ; \mathrm{M} \& \mathrm{C}, \mathrm{N} \% \mathrm{~B}, \mathrm{~K}$ \$ C
After converting: $\mathrm{K}<\mathrm{B}, \mathrm{M}>\mathrm{C}, \mathrm{N} \leq \mathrm{B}, \mathrm{K} \geq \mathrm{C}$
After combining: $\mathrm{M}>\mathrm{C} \leq \mathrm{K}<\mathrm{B} \geq \mathrm{N}$
Conclusion $\mathrm{a} \rightarrow \mathrm{C} @ \mathrm{~B} \rightarrow \mathrm{C}<\mathrm{B}$, It is true as $\mathrm{M}>\mathrm{C} \leq \mathrm{K}<\mathrm{B} \geq \mathrm{N}$.
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 $\mathrm{c} \rightarrow \mathrm{K} \# \mathrm{~N} \rightarrow \mathrm{~K}=\mathrm{N}$ There is no relation between K and N in the statement $\mathrm{M}>\mathrm{C} \leq \mathrm{K}<\mathrm{B}$ $\geq \mathrm{N}$. So, it is not true.

## 14-c

given statements: P \& Q, H \# I, G \$ Q, P \% D, G @ H
After converting: $\mathrm{P}>\mathrm{Q}, \mathrm{H}=\mathrm{I}, \mathrm{G} \geq \mathrm{Q}, \mathrm{P} \leq \mathrm{D}, \mathrm{G}<\mathrm{H}$
After combining: $D \geq P>Q \leq G<H=1$
Conclusion $\mathrm{a} \rightarrow \mathrm{D} \$ \mathrm{Q} \rightarrow \mathrm{D} \geq \mathrm{Q}: \mathrm{D} \geq \mathrm{P}$ and $\mathrm{P}>\mathrm{Q} \rightarrow \mathrm{D}>\mathrm{Q}$ so lt is not true.
Conclusion $\mathrm{b} \rightarrow \mathrm{Q} @ \mathrm{I} \rightarrow \mathrm{Q}<\mathrm{I}: \mathrm{Q} \leq \mathrm{G}, \mathrm{G}<\mathrm{H}$ and $\mathrm{H}=\mathrm{I} \rightarrow \mathrm{Q}<\mathrm{I}$ so, it is true.
Conclusion $\mathrm{c} \rightarrow \mathrm{I} \& \mathrm{G} \rightarrow \mathrm{I}>\mathrm{G}: \mathrm{I}=\mathrm{H}$, and $\mathrm{H}>\mathrm{G} \rightarrow \mathrm{I}>\mathrm{G}$ so, it is true.

## 15-b

given statements: E \% F; X \# W; U \% V; W \& V; F @ X
After converting: $\mathrm{E} \leq \mathrm{F}, \mathrm{X}=\mathrm{W}, \mathrm{U} \leq \mathrm{V}, \mathrm{W}>\mathrm{V}, \mathrm{F}<\mathrm{X}$
After combining: $\mathrm{E} \leq \mathrm{F}<\mathrm{X}=\mathrm{W}>\mathrm{V} \geq \mathrm{U}$
Conclusion $\mathrm{a} \rightarrow \mathrm{U} @ \mathrm{X} \rightarrow \mathrm{U}<\mathrm{X}(\mathrm{U} \leq \mathrm{V}, \mathrm{V}<\mathrm{W}$ and $\mathrm{W}=\mathrm{X} \rightarrow \mathrm{U}<\mathrm{X})$ so it is true.
Conclusion $\mathrm{b} \rightarrow \mathrm{W} \& \mathrm{E} \rightarrow \mathrm{W}>\mathrm{E}(\mathrm{W}=\mathrm{X}, \mathrm{X}>\mathrm{F}$ and $\mathrm{F} \geq \mathrm{E} \rightarrow \mathrm{W}>\mathrm{E})$ so, it is true.
Conclusion $\mathrm{c} \rightarrow \mathrm{V} \# \mathrm{~F} \rightarrow \mathrm{~V}=\mathrm{F}$ There is no relation between V and F in the statement $\mathrm{E} \leq \mathrm{F}<\mathrm{X}=\mathrm{W}$ $>\mathrm{V} \geq \mathrm{U}$ so, it is not true.

## 16-d

given statements: B \$ C, C * T, T @ N, N © D
After converting: $\mathrm{B}>\mathrm{C}, \mathrm{C} \leq \mathrm{T}, \mathrm{T}<\mathrm{N}, \mathrm{N} \geq \mathrm{D}$
After combining: $\mathrm{B}>\mathrm{C} \leq \mathrm{T}<\mathrm{N} \geq \mathrm{D}$
Conclusion $\mathrm{a} \rightarrow \mathrm{B} \$ \mathrm{~T} \rightarrow \mathrm{~B}>\mathrm{T}(\mathrm{B}>\mathrm{C} \leq \mathrm{T})$ No relationship can be established between B and T so, it is not true.

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

Conclusion $\mathrm{c} \rightarrow \mathrm{N} \$ \mathrm{C} \rightarrow \mathrm{N}>\mathrm{C}(\mathrm{C} \leq \mathrm{T}<\mathrm{N})$, 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: $P=Z, Z \geq R, R<M, M>D$
After combining $=Z \geq R<M>D$
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 $b \rightarrow M \$ P \rightarrow M>P(P=Z \geq R<M)$ 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.

## 18-b

given statements: M © K, K * N, N \$ J, J \% Y
After converting: $\mathrm{M} \geq \mathrm{K}, \mathrm{K} \leq \mathrm{N}, \mathrm{N}>\mathrm{J}, \mathrm{J}=\mathrm{Y}$
After combining: $\mathrm{M} \geq \mathrm{K} \leq \mathrm{N}>\mathrm{J}=\mathrm{Y}$
Conclusion $\mathrm{a} \rightarrow \mathrm{M} \$ \mathrm{~N} \rightarrow \mathrm{M}>\mathrm{N}(\mathrm{M} \geq \mathrm{K} \leq \mathrm{N})$ No relationship can be established between M and N so, it is not true.

Conclusion $\mathrm{b} \rightarrow \mathrm{J} @ \mathrm{~K} \rightarrow \mathrm{~J}<\mathrm{K}(\mathrm{K} \leq \mathrm{N}>\mathrm{J})$ 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 $\mathrm{d} \rightarrow \mathrm{K} \$ \mathrm{Y} \rightarrow \mathrm{K}>\mathrm{Y}(\mathrm{K} \leq \mathrm{N}>\mathrm{J}=\mathrm{Y})$, 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: $C \leq D, D>N, N=M, M \geq L$
After combining: $\mathrm{C} \leq \mathrm{D}>\mathrm{N}=\mathrm{M} \geq \mathrm{L}$
Conclusion $a \rightarrow M \% L \quad \rightarrow M=L(M \geq L)$ It will make a either case so both conclusion $a$ and $b$ is true

Conclusion $c \rightarrow N @ D \rightarrow N<D(D>N)$, it is true.
Conclusion $d \rightarrow L @ N \rightarrow L<N(N=M \geq L)$, it is true.

20-c
given statements: J @ K, K*E, V © E, W \$ V
After converting: $\mathrm{J}<\mathrm{K}, \mathrm{K} \leq \mathrm{E}, \mathrm{V} \geq \mathrm{E}, \mathrm{W}>\mathrm{V}$
After combining: $\mathrm{J}<\mathrm{K} \leq \mathrm{E} \leq \mathrm{V}<\mathrm{W}$
Conclusion $\mathrm{a} \rightarrow \mathrm{W} \$ \mathrm{E} \rightarrow \mathrm{W}>\mathrm{E}(\mathrm{E} \leq \mathrm{V}<\mathrm{W})$ it is true.
Conclusion $\mathrm{b} \rightarrow \mathrm{J} @ \mathrm{E} \rightarrow \mathrm{J}<\mathrm{E}(\mathrm{J}<\mathrm{K} \leq \mathrm{E})$, it is true.
Conclusion $\mathrm{c} \rightarrow \mathrm{J} @ \mathrm{~V} \rightarrow \mathrm{~J}<\mathrm{V}(\mathrm{J}<\mathrm{K} \leq \mathrm{E} \leq \mathrm{V})$, it is true.
Conclusion $\mathrm{d} \rightarrow \mathrm{K} \$ \mathrm{~W} \rightarrow \mathrm{~K}>\mathrm{W}(\mathrm{K} \leq \mathrm{E} \leq \mathrm{V}<\mathrm{W})$, it is not true.

## 21-a

given statements: E * F, D \% F, D \# K, K \$ R
After converting: $\mathrm{E}>\mathrm{F}, \mathrm{D}<\mathrm{F}, \mathrm{D} \leq \mathrm{K}, \mathrm{K} \geq \mathrm{R}$
After combining: $E>F>D \leq K \geq R$
Conclusion $\mathrm{a} \rightarrow \mathrm{E} * \mathrm{D} \rightarrow \mathrm{E}>\mathrm{D}(\mathrm{E}>\mathrm{F}>\mathrm{D})$, it is true.
Conclusion $\mathrm{b} \rightarrow \mathrm{F} \# \mathrm{~K} \rightarrow \mathrm{~F} \leq \mathrm{K}(\mathrm{F}>\mathrm{D} \leq \mathrm{K})$ No relationship can be established between F and K so, it is not true.

Conclusion $c \rightarrow K * E \rightarrow K>E(E>F>D \leq K)$, 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.
given statements: A @ B, B \$ J, V \% J, V \# Z
After converting: $\mathrm{A}=\mathrm{B}, \mathrm{B} \geq \mathrm{J}, \mathrm{V}<\mathrm{J}, \mathrm{V} \leq \mathrm{Z}$
After combining: $\mathrm{A}=\mathrm{B} \geq \mathrm{J}>\mathrm{V} \leq \mathrm{Z}$
Conclusion $\mathrm{a} \rightarrow \mathrm{A}^{*} \mathrm{~V} \rightarrow \mathrm{~A}>\mathrm{V}(\mathrm{A}=\mathrm{B} \geq \mathrm{J}>\mathrm{V})$, it is true.
Conclusion $\mathrm{b} \rightarrow \mathrm{B} * \mathrm{~V} \rightarrow \mathrm{~B}>\mathrm{V}(\mathrm{B} \geq \mathrm{J}>\mathrm{V})$ it is true.
Conclusion $\mathrm{c} \rightarrow \mathrm{Z} \% \mathrm{~J} \rightarrow \mathrm{Z}<\mathrm{J}(\mathrm{J}>\mathrm{V} \leq \mathrm{Z})$, No relationship can be established between J and Z so, it is not true.

Conclusion $\mathrm{d} \rightarrow \mathrm{A} @ \mathrm{Z} \rightarrow \mathrm{A}=\mathrm{Z}(\mathrm{A}=\mathrm{B} \geq \mathrm{J}>\mathrm{V} \leq \mathrm{Z})$, 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: $\mathrm{X} \geq \mathrm{Y}, \mathrm{Y}>\mathrm{H}, \mathrm{H} \leq \mathrm{T}, \mathrm{P}<\mathrm{T}$
After combining: $\mathrm{X} \geq \mathrm{Y}>\mathrm{H} \leq \mathrm{T}>\mathrm{P}$
Conclusion $\mathrm{a} \rightarrow \mathrm{T}$ @ $\mathrm{X} \rightarrow \mathrm{T}=\mathrm{X}(\mathrm{X} \geq \mathrm{Y}>\mathrm{H} \leq \mathrm{T})$, 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 $\mathrm{c} \rightarrow \mathrm{Y} @ \mathrm{~T} \rightarrow \mathrm{Y}=\mathrm{T}(\mathrm{Y}>\mathrm{H} \leq \mathrm{T})$, 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: $\mathrm{F} \leq \mathrm{Q}, \mathrm{Q}>\mathrm{R}, \mathrm{R}<\mathrm{P}, \mathrm{P} \geq \mathrm{Y}$
After combining: $\mathrm{F} \leq \mathrm{Q}>\mathrm{R}<\mathrm{P} \geq \mathrm{Y}$
Conclusion $a \rightarrow Q * Y \rightarrow Q>Y(Q>R<P \geq Y)$, No relationship can be established between $Q$ and Y so, it is not true.

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

Conclusion $\mathrm{d} \rightarrow \mathrm{P} \# \mathrm{Q} \rightarrow \mathrm{P} \leq \mathrm{Q}(\mathrm{Q}>\mathrm{R}<\mathrm{P})$, 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: $\mathrm{A} \leq \mathrm{B}, \mathrm{Q} \geq \mathrm{B}, \mathrm{B}=\mathrm{J}, \mathrm{J}<\mathrm{C}$
After combining: $\mathrm{A} \leq \mathrm{B} \leq \mathrm{Q}, \mathrm{B}=\mathrm{J}<\mathrm{C}$
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 $\mathrm{b} \rightarrow \mathrm{A} \# \mathrm{~J} \rightarrow \mathrm{~A} \leq \mathrm{J}(\mathrm{A} \leq \mathrm{B}=\mathrm{J})$ it is true.
Conclusion $c \rightarrow Q \$ C \rightarrow Q \geq C(Q \geq B=J<C)$, No relationship can be established between $Q$ and C so, it is not true.

## 26-a

Explanation; a - A \# Q \% N © K \$ T © U \$ Z $\rightarrow \mathrm{A}<\mathrm{Q} \leq \mathrm{N}=\mathrm{K} \geq \mathrm{T}=\mathrm{U} \geq \mathrm{Z}$, in this $\mathrm{A} @ \mathrm{~K}=\mathrm{A}>\mathrm{K}$ and $\mathrm{Z} \# \mathrm{~K}=\mathrm{Z}<\mathrm{K}$, it will hold the condition true.
b-A \$ Q @ N@Z\#T@K\%U $\rightarrow A \geq Q>N>Z<T=K \leq U$, in this $A @ K=A>K$, not follows and $\mathrm{Z} \# \mathrm{~K}=\mathrm{Z}<\mathrm{K}$, follows but it will not hold the condition true.
$c-A @ Q \odot N \$ K \$ T @ U @ Z \rightarrow A>Q=N \geq K \geq T>U=Z$, in this $A @ K=A>K$, follows and $Z$ \# $\mathrm{K}=\mathrm{Z}<\mathrm{K}$, follows but it will not hold the condition true.
d- $A \odot Q @ N @ K @ T \$ U @ Z \rightarrow A=Q>N=K>T \geq U=Z$, in this $A @ K=A>K$, follows and $Z$ \# $\mathrm{K}=\mathrm{Z}<\mathrm{K}$, follows but it will not hold the condition true.

## 27-c

a-X@S\$R@D\%E\#G $\rightarrow X=S \geq R>D \leq E<G$, in this $R \$ E=R \geq E$ and $S \% E=S \leq E$, it is not true.
b-X\#S \% R \$ D @ E \# G $\rightarrow \mathrm{X}<\mathrm{S} \leq \mathrm{R} \geq \mathrm{D}>\mathrm{E}<\mathrm{G}$, in this R \$ E = R $\geq \mathrm{E}$ not follows and $\mathrm{S} \% \mathrm{E}=$ $S \leq E$, not follows.
$c-X \# S \subset R \% D \% E \$ G \rightarrow X<S=R \leq D \leq E \geq G$, in this $R \$ E=R \geq E$, not follows and $S \% E$ $=S \leq E$, 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-c

$\mathrm{M} \leq \mathrm{N}<\mathrm{O}=\mathrm{P}>\mathrm{S}=\mathrm{T} \geq \mathrm{W}$
(i) M \# $\mathrm{P} \rightarrow \mathrm{M}<\mathrm{P}(\mathrm{M} \leq \mathrm{N}<\mathrm{O}=\mathrm{P})$ it is true.
(ii) O © $\mathrm{T} \rightarrow \mathrm{O}=\mathrm{T}(\mathrm{O}=\mathrm{P}>\mathrm{S}=\mathrm{T})$ it is not true.
(iii) $\mathrm{N} \# \mathrm{P} \rightarrow \mathrm{N}<\mathrm{P}(\mathrm{N}<\mathrm{O}=\mathrm{P})$ 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 \$ © © \$ V
P\$Q@R\$S\$T©U\$V
Hence option d is true

## 30-b

given statements: R@D, D\$ J, J \# M, M @ K
After converting: $\mathrm{R}>\mathrm{D}, \mathrm{D} \geq \mathrm{J}, \mathrm{J}<\mathrm{M}, \mathrm{M}>\mathrm{K}$
After combining : R $>\mathrm{D} \geq \mathrm{J}<\mathrm{M}>\mathrm{K}$
Conclusion $\mathrm{a} \rightarrow \mathrm{K} \# \mathrm{~J} \rightarrow \mathrm{~K}<\mathrm{J}(\mathrm{J}<\mathrm{M}>\mathrm{K})$, No relationship can be established between K and J so, it is not true.

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

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

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

31-d
Sol.
On converting: $\mathrm{L} \leq \mathrm{I}<\mathrm{A}>\mathrm{B}$
Conclusion 1- B \# I means $\mathrm{B}>\mathrm{I}$ is false
Conclusion 2- $B \$$ I means $B<I$ is false
Hence neither conclusion I nor conclusion II is true

32-c
Sol.
On converting: $\mathrm{G}=\mathrm{I}>\mathrm{B} \leq \mathrm{Z}$
Conclusion 1- $G=Z$ means $G \leq Z$ is false
Conclusion 2- Z \$ G means $Z<G$ is false
Hence either conclusion I or conclusion II is true

33-e
Sol.
On converting: $\mathrm{N}=\mathrm{O}<\mathrm{P}=\mathrm{Q}$
Conclusion 1- Q \# N means $\mathrm{Q}>\mathrm{N}$ is true
Conclusion 2-N \$ P means $\mathrm{N}<\mathrm{P}$ is true
Hence both conclusions I and II are true.

34-d
Sol.
On converting: $\mathrm{E}>\mathrm{N}>\mathrm{F}>\mathrm{M}=\mathrm{J}<\mathrm{H}=\mathrm{I}$

Conclusion 1-I @ N means I = N is false
Conclusion 2- F @ I means $F=1$ is false
Hence neither conclusion I nor conclusion II is true

35-d
Sol.
On converting: $\mathrm{R} \geq \mathrm{S}=\mathrm{T} \geq \mathrm{O}$
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: $\mathrm{E} \leq \mathrm{F} \geq \mathrm{C}>\mathrm{D}$
Conclusion $\mathrm{I}-\mathrm{E}+\mathrm{C}$ means $\mathrm{E}>\mathrm{C}$ is false
Conclusion II- $\mathrm{E} \div \mathrm{D}$ means $\mathrm{E}<\mathrm{D}$ is false
Hence neither I nor II is true.

37-e
Sol.
On converting: $P<Q<F \leq R$
Conclusion $1-R+Q$ means $R>Q$ is true
Conclusion II- $\mathrm{P} \div \mathrm{F}$ means $\mathrm{P}<\mathrm{F}$ is true
Hence both I and II are true.

38-a

Sol.
On converting: $\mathrm{O}<\mathrm{S} \leq \mathrm{J} \geq \mathrm{K}$
Conclusion $\mathrm{I}-\mathrm{J}+\mathrm{O}$ means $\mathrm{J}>\mathrm{O}$ is true
Conclusion II- $\mathrm{K}=\mathrm{O}$ means $\mathrm{K}=\mathrm{O}$ is false
Hence only conclusion I is true.

39-c
Sol.
On converting: $\mathrm{E}<\mathrm{F}<\mathrm{Q} \geq \mathrm{R}$
Conclusion $I-F+R$ means $F>R$ is false
Conclusion II- $\mathrm{F}-\mathrm{R}$ means $\mathrm{F} \leq \mathrm{R}$ is false
Hence either I or II is true.

40-b
Sol.
On converting: $\mathrm{Q} \geq \mathrm{M} \leq \mathrm{P} \leq 1$
Conclusion $\mathrm{I}-\mathrm{P} \div \mathrm{Q}$ means $\mathrm{P}<\mathrm{Q}$ is false
Conclusion II- $\mathrm{M}-\mathrm{I}$ means $\mathrm{M} \leq \mathrm{I}$ is true
Hence only conclusion II is true.

41-b
Sol.
On converting: $\mathrm{F}<\mathrm{D} \leq \mathrm{C}>\mathrm{E}$
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: $\mathrm{N}=\mathrm{L}>\mathrm{M} \leq \mathrm{O}$
Conclusion I)- N © O means $\mathrm{N}<\mathrm{O}$ is false
II) $\mathrm{N} @ \mathrm{O}$ means $\mathrm{N}>\mathrm{O}$ is false

Hence neither 1 nor II is true

## 43-b

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

44-d
Sol.
On converting: $\mathrm{C} \leq \mathrm{D} \geq \mathrm{A} \geq \mathrm{B}$
Conclusion $\mathrm{I}-\mathrm{C}=\mathrm{A}$ means $\mathrm{C}=\mathrm{A}$ is false
Conclusion II- $D=B$ means $D=B$ is false
Hence neither 1 nor II is true

## 45-e

Sol.
On converting: $\mathrm{K}>\mathrm{L}=\mathrm{I} \geq \mathrm{J}$

Conclusion I-K @ I means $\mathrm{K}>\mathrm{I}$ is true
Conclusion II- J © K means $\mathrm{J}<\mathrm{K}$ is true
Hence both I and II are true

46-e
Decoded Statement: $A \leq D \geq E>G<H$
Decoded conclusion: I. D > G
II. $A>H$
III. $A \leq H$
IV. $\mathrm{E}<\mathrm{D}$
$A \leq D \geq E>G<H$
$\mathrm{D}>\mathrm{G}$. Hence conclusion I is true.
$A \leq D \geq E>G<H \quad$ No relationship can be established between $A$ and $H$ but it will make a complementary pair. Hence either conclusion II or III is true.
$\mathrm{A} \leq \mathrm{D} \geq \mathrm{E}>\mathrm{G}<\mathrm{H}$
$D \geq E$. Hence conclusion III is not true.

47-a
Decoded Statement: $\mathrm{E} \leq \mathrm{D}, \mathrm{D} \geq \mathrm{I}, \mathrm{I}<\mathrm{F}, \mathrm{F}>\mathrm{L}$
Decoded conclusion: I. L $<$ II. $\mathrm{F}>\mathrm{D}$ III. E < D
IV. D > L
$E \leq D \geq I<F>L \quad$ No relationship can be established between L and I. Hence conclusion I is not true.
$\mathrm{E} \leq \mathrm{D} \geq \mathrm{I}<\mathrm{F}>\mathrm{L} \quad$ No relationship can be established between F and D. Hence conclusion II is not true.
$\mathrm{E} \leq \mathrm{D} \geq \mathrm{I}<\mathrm{F}>\mathrm{L} \quad \mathrm{E} \leq \mathrm{D}$. Hence conclusion III is not true.
$E \leq D \geq 1<F>L \quad$ No relationship can be established between D and L. Hence conclusion IV is not true.

48-a
Decoded Statement: $\mathrm{W} \leq \mathrm{X} \geq \mathrm{Y}>\mathrm{U}<\mathrm{Z}$
Decoded conclusion:
I. $X \leq W$
II. $\mathrm{U}<\mathrm{Y}$
III. $Y>Z$
IV. $\mathrm{X}>\mathrm{W}$
=Prepare 50\% Faster
$W \leq X \geq Y>U<Z \quad X \geq W$. Hence conclusion I is not true.
$W \leq X \geq Y>U<Z \quad U>Y$. Hence conclusion II is true.
$\mathrm{W} \leq \mathrm{X} \geq \mathrm{Y}>\mathrm{U}<\mathrm{Z} \quad$ No relationship can be established between Y and Z . Hence conclusion III is not true.
$\mathrm{W} \leq \mathrm{X} \geq \mathrm{Y}>\mathrm{U}<\mathrm{Z} \quad \mathrm{X} \leq \mathrm{W}$. Hence conclusion IV is not true.

49-c
Decoded Statement: $\mathrm{R} \leq \mathrm{T}, \mathrm{T} \geq \mathrm{U}, \mathrm{U}<\mathrm{S}, \mathrm{S}>\mathrm{J}$
Decoded conclusion: $\mathrm{I} . \mathrm{R}>\mathrm{T}$
II. $T \geq R$
III. $U \leq J$
IV. $S=$ T
$R \leq T \geq U<S>J \quad R \leq T$. Hence conclusion I is not true.
$R \leq T \geq U<S>J \quad R \leq T$. Hence conclusion II is true.
$R \leq T \geq U<S>J \quad$ No relationship can be established between $U$ and $J$. Hence conclusion III is not true.
$\mathrm{R} \leq \mathrm{T} \geq \mathrm{U}<\mathrm{S}>\mathrm{J}$ No relationship can be established between S and T . Hence conclusion IV is not true.

50-e
Decoded Statement: $A \geq Z, Z>Y, Y \leq B, B<C$
Decoded conclusion: I. Y < C II. A $\geq$ B III. Z > C IV. A > Y
$A \geq Z>Y \leq B<C \quad C>Y$. Hence conclusion I is true.
$\mathrm{A} \geq \mathrm{Z}>\mathrm{Y} \leq \mathrm{B}<\mathrm{C} \quad$ No relationship can be established between A and B . Hence conclusion II is not true.
$\mathrm{A} \geq \mathrm{Z}>\mathrm{Y} \leq \mathrm{B}<\mathrm{C} \quad$ No relationship can be established between Z and C . Hence conclusion III is not true.
$A \geq Z>Y \leq B<C \quad A>Y$. Hence conclusion IV is true.

