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## Inequality short Tricks \& Questions with solutions

1. In Reasoning Part, another important Topic is Inequality Problems. In inequality problems, each problem will have a statement followed by conclusions. We can easily score 4-5 marks from this topic in few minutes. Inequality is common topic for all competitive exams. It is one of the topic, where you can get full marks very easily. We are going to explain a very simple method and we assure you that it's possible to solve 5 questions in just one minutes.

So, let's learn this topic.

| S.No | Symbol |  |
| :--- | :--- | :--- |
| 1. | $>$ | Meaning |
| 2. | $<$ | First element is Greater than Second element. |
| 3. | $\geq$ | First element is Smaller than Second element. |
| 4. | $\leq$ | First element is Greater than or Equals to Second element. |
| 5. | $\neq$ | First element is Smaller than or Equals to Second element. |
| 6. |  | First element is either greater than or smaller than Second element. |

## RULES:

" $\gg$ (more than) \& " $\geq$ " (more than equal to) symbol explanation:
If the conclusion contains " $>$ " (more than) symbol:

1. It will satisfies if, ">" (more than) symbol present in the statement between objects.
2. It will also follow " $=$ (equal to)", " $\geq$ (more than equal to)" symbols but " $>$ (more than)" symbol must be present at least in statement between the objects as per the conclusion.

If the conclusion contains " $\geq$ " (more than equal to) symbol:

1. It will satisfies if, " $\geq$ " (more than equal to) symbol present in the statement between objects.
2. It will also follow "= (equal to)" symbol, but " $\geq$ (more than equal to)" symbol must be present at least in statement between the objects as per the conclusion.

Note: if the statement contains " $\geq$ (more than equal to)" symbol, and conclusion has "= (equal to)" \& ">" (more than) symbol, in this case either option will come into existence.

## Example:

## Statement:

$\mathrm{P} \geq \mathrm{Q} \geq \mathrm{R} \geq \mathrm{S}=\mathrm{T}>\mathrm{U} \geq \mathrm{W}$

## Conclusion:

a) $P>R$
b) $\mathrm{p}>\mathrm{S}$;


FALSE
c) $P>T$
d) $\mathrm{P}>\mathrm{U}$
e) $\mathrm{P}>\mathrm{w}$
f) $P \geq R$
g) $P \geq S$ TRUE
h) $P \geq T$
i) $\mathrm{P}=\mathrm{T}$
j) $P=R$ $\qquad$ EITHER (1) or (K) follows
k) $P$ R
 EITHER (L) or (M) follows
m) $P=S$ $\qquad$
"<" (less than) \& " $\leq "$ (less than equal to) symbol explanation:
If the conclusion contains "<" (less than) symbol:

1. It will satisfies if," "<" (less than) symbol present in the statement between objects.
2. It will also follow " $=$ (equal to)", " $\leq$ (less than equal to)" symbols but " $<$ (less than)" symbol must be present at least in statement between the objects as per the conclusion.

If the conclusion contains " $\leq$ " (less than equal to) symbol:

1. It will satisfies if," " $\leq$ (less than equal to) symbol present in the statement between objects.
2. It will also follow "= (equal to)" symbol, but " $\leq$ (less than equal to)" symbol must be present at least in statement between the objects as per the conclusion.

Note: if the statement contains " $\leq$ (less than equal to)" symbol, and conclusion has "= (equal to)" \& "<" (less than) symbol, in this case either option will come into existence.

Example:
Statement:
$P \leq Q \leq R \leq S=T<U \leq W$
Conclusion:
a) $\mathrm{P}<\mathrm{R}$
b) $\mathrm{P}<\mathrm{S}$
c) $P<T$ FALSE
d) $P<U$
e) $P<W$
f) $\mathrm{P} \leq \mathrm{R}$
g) $P \leq S$ TRUE
h) $\mathrm{P} \leq \mathrm{T}$
i) $\mathrm{P}=\mathrm{T}$
j) $P=$
k) $\mathrm{P}<\mathrm{R}$
$\qquad$ EITHER ( J ) or ( K ) follows
l) $\mathrm{p}<\mathrm{s}$ EITHER (L) or (M) follows

## Important Points :-

| SIGN | SIGN | ANSWER |
| :---: | :---: | :---: |
| $\geqslant$ | < | False |
| $\geqslant$ | 5 | False |
| $<$ | $>$ | False |
| $<$ | 2 | False |
| 5 | 2 | False |
| 2 | $\leq$ | False |



## Example 1:

Statement:

$P<Q>R<S>T$

## Conclusion:

n) $P<R$
o) $P<S$
p) $P<T$
q) $Q>T$

## FALSE

r) $Q>S$
s) $R>T$ $\qquad$

Explanation: Sign used in statement as compared to conclusions are opposite, so the conclusion will be false.

Example 2:

## Statement:

$P \geq Q \leq R \geq S \leq T$

## Conclusion:

a) $P \geq R$
b) $\mathrm{P} \geq \mathrm{S}$
c) $P \geq T$
d) $Q \leq T$

FALSE
e) $Q \leq S$
f) $R \leq T$


Explanation: Sign used in statement as compared to conclusions are opposite, so the conclusion will be false.

| Wote 2: If sime sign usd betwenn objet than answer will be true. |  |  |
| :---: | :---: | :---: |
| \$ 16 N | HiN | ANSWE |
| \% | ? | Ture |
| 3 | 2 | True |
| ¢ | 5 | True |
| 6 | 5 | Tue |
| 5 | 5 | The |
| 2 | 2 | True |


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## Example 3:

Statement:
$P \leq Q \leq R \leq S \leq T$

Conclusion:
a) $P \leq R$
b) $P \leq S$
c) $P \leq T$
d) $Q \leq T$
e) $Q \leq S$
f) $R \leq T$ $\qquad$

Explanation: Sign used in statement as compared to conclusions are SAME, so the conclusion will be TRUE.

## Important conclusion Based on Statement

## S.No Statement Conclusion

1. $A>B>$

C
2. $A>B \geq C$
3. $A \geq B>C_{A>C}$
$A=B>$
C
$A>B=$
5.

C
6. $A<B<C$
7. $A<B \leq C$
8. $A \leq B<C$
9. $A=B<A<C$
10. $A<B=$
11. $A \geq B \geq C$
12. $A=B \geq C A \geq C$ (Either $A>C$ or $A=C)$
13. $A \geq B=C$
14. $A \leq B \leq C$
15. $A=B \leq C A \leq C$ (Either $A<C$ or $A=C)$
16. $A \leq B=C$
$A\langle B\rangle$ Either 1 or 2 follows if any of the following cases ( $a, b, c$ and $d$ ) are given as $C$ they form a complementary pair.
18. $A \leq B>C$
19. $A<B \geq C$ a) 1. $A>C \quad$ 2. $A \leq C$
20. $A>B<$
C
b) 1. $A \geq C$
2. $A<C$
21. $A>B \leq C$
c) 1. $A<C$
2. $A \geq C$
22. $A \geq B<C$
d) 1. $A \leq C$
2. $A>C$

## Example of Coded Inequality in Reasoning

Directions: In the following questions, the symbols $\delta, @$, ©, \% and $\star$ are used with the following meaning as illustrated below.
' $A$ © $B$ ' means ' $A$ is not smaller than $B$ '.
' $A \% B$ ' means ' $A$ is neither smaller than nor equal to $B$ '.
' $A \star B$ ' means ' $A$ is neither greater than nor equal to $B$ '.
' $A \delta B$ ' means ' $A$ is not greater than $B$ '.
' $A$ @ $B$ ' means ' $A$ is neither greater than nor smaller than $B$ '.
Now in each of the following questions assuming the given statements to be true, find which of the four conclusions I, II, II and IV given below them is / are definitely true and give your answer accordingly.

## Statements:

$P \delta T, T @ R, R @ O, O \% K$


Conclusions:
I. R @ P
II. $R \% P$
III. $K \star T$
IV. $O \delta T$

1) Only either I or II is true
2) Only III and IV are true

3) Only either I or II and III are true
4) Only either I or II and IV are true
5) Only either I or II and III and IV are true

Follow the steps given below to simplify the process.

> Steps Involved in Solving Coded Inequality in Reasoning

## Step 1: Make Decoding Table.

The easiest method is to first make a table as shown below.

| A is |  |  |  |
| :---: | :--- | :--- | :--- |
| Symbol |  |  |  |
|  |  |  |  |
| Meaning |  |  |  |
| Than B |  |  |  |

NOTE: Elements used in question are $A$ and $B$ so we have added $A$ and $B$ in table.
TIP: Sometimes, to make questions more complicated, reverse relations may be given as: ' $A * B$ ' means ' $B$ is not smaller than $A$ '.
So here we will write $B$ in the first row and $A$ in the last row.

Step 2: Add Symbols to Table

| A is |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Symbol | © | $\%$ | $\star$ | $\delta$ | $@$ |
| Meaning |  |  |  |  |  |
| Than B |  |  |  |  |  |

Step 3: Start decoding symbols one by one. Then add decoded operator into the table.
Here symbols are:
© $\rightarrow$ not smaller than $\rightarrow$ means greater than or equal to $\rightarrow$ ' $\geq$ ’
$\% \rightarrow$ neither smaller than nor equal to $\rightarrow$ means greater than $\rightarrow$ '>'
$\star \rightarrow$ neither greater than nor equal to $\rightarrow$ means smaller than $\rightarrow$ ' $<$ '
$\delta \rightarrow$ not greater than $\rightarrow$ means smaller than or equal to $\rightarrow$ ' $\leq$ ’
(a) $\rightarrow$ neither greater than nor smaller than $\rightarrow$ means equal to $\rightarrow$ ' $=$ '

So our decoding table becomes:

| A is |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Symbol | © | $\%$ | $\star$ | $\delta$ | $@$ |
| Meaning | $\geq$ | $>$ | $<$ | $\leq$ | $=$ |
| Than B |  |  |  |  |  |

We will now use this decoding table to solve the actual questions.

Step 4: Decode Statements using Decoding Table.

| A is |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Symbol | © | $\%$ | $\star$ | $\delta$ | $@$ |
| Meaning | $\geq$ | $>$ | $<$ | $\leq$ | $=$ |
| Than B |  |  |  |  |  |

Statements: $P \delta T, T @ R, R @ O, O \% K$
Decoded statements: $P \leq T, T=R, R \geq O, O>K$

## Step 5: Combine Decoded Statements

Combined statement will be: $P \leq T=R \geq O>K$

## Step 6: Conclude Individually

Look at conclusions one by one, decode each conclusion using the Decoding Table. Then check whether the conclusion follows or not.

| A is |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Symbol | © | $\%$ | $\star$ | $\delta$ | $@$ |
| Meaning | $\geq$ | $>$ | $<$ | $\leq$ | $=$ |
| Than B |  |  |  |  |  |

Conclusion I: $R$ @ $P \rightarrow R=P$
Now from the combined statement we get, $P \leq T=R$.
According to priority level we get, $P \leq R$.
Thus $R=P$ is false.

## Conclusion II: $R \% P \rightarrow R>P$

From the combined statement we get, $P \leq T=R$.
Thus again we get $P \leq R$.
So $R>P$ is false.
But we know from the combined statement that $P \leq R$. Hence either conclusion I or II has to be true as they form complementary pair.


## Inequality Questions with Solutions

Directions (1-5): In the following questions the symbols \#, *, @. \$ and = are used with the following meanings:

1) A \# B means A is greater than B.
2) $A * B$ means $A$ is greater than or equal to $B$.
3) $A$ @ $B$ means $A$ is equal to $B$.
4) $A \$ B$ means $A$ is lesser than $B$.
5) $A=B$ 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.
a) if only conclusion I is true
b) if only conclusion II is true
c) if either conclusion I or conclusion II is true
d) if neither conclusion I nor conclusion II is true
e) if both conclusions I and II are true.

1. Statements: $P \# Q, R \$ P, R * O$

Conclusions:
I. Q \# R
II. $Q \$ R$
2. Statements: $P=Q, T @ R, R \# P$

Conclusions :
I. $T=Q$
II. $Q * T$
3. Statements : P @ Q, L @ M, P \# L

Conclusions :
I. $Q$ \# M
II. $M \$ P$
4. Statements: P \# M \# L, L\# N @ Q, Q \$ S @ R

Conclusions :
I. $R$ @ $M$
II. $L$ @ R
5. Statements : $P * Q, Q @ T, T * L$

Conclusions :
I. Q \# L
II. T \# P


Directions (Q. 6-10): In the questions given below, certain symbols are used with the following meaning:

1) $P$ @ $Q$ means $P$ is greater than $Q$.
2) $P+Q$ means $P$ is either greater than or equal to $Q$.
3) $P=Q$ means $P$ is equal to $Q$.
4) $P \odot Q$ means $P$ is smaller than $Q$.
5) $P$ - $Q$ 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
a) if only conclusion I is true,
b) if only conclusion II is true,
c) if either I or II is true,
d) if neither 1 nor II is true, and
e) if both I and II are true.
6. Statements: $B$ @ $V, K \subset C, C-B$

Conclusions:
I. $V @ C$
II. $B$ @ $K$
7. Statements: $K$ @ $T, \$=K, T-R$

Conclusions:
I. $S$ @ $R$
II. $T=R$
8. Statements: $U=M, P+U, M @ B$

Conclusions:
I. $P=B$
II. P @ B
9. Statements: $L+N, J-P, P+L$

Conclusions:
I. $J=L$
II. $P=N$
10. Statements: $H+G, D$ @ $E, H=E$

Conclusions:
I. $D$ @ $H$
II. $G \odot D$.

Directions (Q.11-15): In the questions given below, certain symbols are used with the following meaning:

1) $A @ B$ means $A$ is greater than $B$.
2) $A+B$ means $A$ is either greater than or equal to $B$.
3) $A$ \# $B$ means $A$ is smaller than $B$
4) $A \% B$ means $A$ is either smaller than or equal to $B$.
5) $A \$ B$ means $A$ is 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
a) if only conclusion I is true.
b) if only conclusion II is true,
c) if either I or II is true.
d) if neither I nor II is true.
e) if both I and II are true.
11. Statements: $T \$ G, K @ P, M \# T, P+M$

## Conclusions:

I. $K$ @ $T$
II. $G \$ P$
12. Statements: $R+N, S \% B, A @ R, B \$ A$

Conclusions:
I. $S \$ N$
II. $A @ N$
13. Statements: $G \$ K, F @ J, K+Q, Q+F$

Conclusions:
I. $K \$ F$
II. F \# K
14. Statements: $W$ @ S, $K \% Z, U+W, S \$ K$

Conclusions:
I. $U$ @ $K$
II. Z @ S
15. Statements: $G \$ E, D \# K, E \# S, K \times G$

Conclusions:
I. $S$ @ D
II. D\# E

Directions (Q. 16-20): In the following questions the symbol \$, @, *, ** and \# are used with the following meaning.

1) $A \$ B$ means $A$ is greater than $B$
2) $A$ @ $B$ means $A$ is either greater than or equal to $B$
3) $A * B$ means $A$ is equal to $B$
4) $A * * B$ means $A$ is smaller than $B$
5) 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
a) if only conclusion I is true.
b) if only conclusion II is true.
c) if either I or II is true.
d) if neither I nor II is true.
e) if both I and II are true.
16. Statements: $P$ @ $Q, M \# N, N^{* *} Q$

Conclusions:
I. P \$ M
II. $N$ \# P
17. Statements: $D^{* *} X, F @ Y, D \$ F$

Conclusions:
I. $X$ @ Y
II. $Y$ \# D

## 18. Statements: $M^{* *} P, S \$ T, M$ @ $T$

Conclusions:
I. $S$ * $M$
II. $T^{* *} P$
19. Statements: $U^{*} V, X \$ W, U^{* *} W$

Conclusions:
I. $W$ \$ V
II. $U * * X$
20. Statements: $G \$ H, J \# K, H * K$

Conclusions:
I. H \$ J
II. $J * H$

Directions (Q, 21-25): In the following questions the symbols $\$, @, *$, \# and ? are used with the following meanings.

1) $A \$ B$ means $A$ is greater than $B$.
2) $A$ @ $B$ means $A$ is either greater than or equal to $B$.
3) $A * B$ means $A$ is equal to $B$.
4) A \# B means $A$ is smaller than $B$.
5) 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.
a) If only conclusion I is true.
b) If only conclusion II is true.
c) If either I or $I$ Is true.
d) If neither I nor II is true.
e) If both I and II are true.
21. Statements: $M$ \# $N, T \$ U, N \# U$

Conclusions:
I. M ? T
II. $T \$ N$
22. Statements: P \$ T, G? N, T @ N Conclusions:
I. P \$ N
II. $G$ ? $T$
23. Statements: P? Q, R \$ S, Q @ S Conclusions:
I. P \$ S
II. $R$ \# $Q$
24. Statements: J \# K, $K * F, H$ @ $F$

Conclusions:
I. J ? H
II. $H \$ K$
25. Statements: $D$ @ $F, G \$ H, F$ ? $H$

Conclusions:
I. $G \$ F$
II. $D$ @ $H$

Directions (Q. 26-30): In the questions given below, certain symbols are used with the following meanings:

1) $A @ B$ means $A$ is greater than $B$.
2) $A * B$ means $A$ is either greater than or equal to $B$.
3) $A$ \# $B$ means $A$ is equal to $B$.
4) $A \$ B$ means $A$ is either smaller than or equal to $B$.
5) $A+B$ means $A$ is smaller than $B$.

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
a) if only conclusion I is true
b) if only conclusion II is true
c) if either conclusion I or II is true
d) if neither conclusion I nor II is true
e) if both conclusions I and II are true
26. Statements: $B+D ; E \$ T ; T$ * $P ; P$ @ $B$ Conclusions: I. P\$D

II. P@D
27. Statements: $E * F ; G \$ H ; H \# E ; G$ @ $K$ Conclusions:
I. $H$ @ $K$
II. $H^{*} F$
28. Statements: $P \$ Q ; N \# M ; M @ R ; R * P$ Conclusions:
I. $P+N$
II. $Q \$ M$
29. Statements: $D+T ; E \$ V ; F * T ; E$ @ $D$ Conclusions:
I. $D \$ V$
II. $D+F$
30. Statements: $T^{*} U ; U \$ W ; V @ L ; W+V$

Conclusions:
I. $V$ @ $T$
II. $L$ \# W

Directions (Q.31-35): In the following questions, the symbols,$+ \times,=, \div$ and - are $u s e d$ with the following meaning:

1) $P+Q$ means $P$ is greater than $Q$.
2) $P \times Q$ means $P$ is either greater than or equal to $Q$.
3) $P=Q$ means $P$ is equal to $Q$.
4) $P \div Q$ means $P$ is smaller than $Q$.
5) $P-Q$ 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
a) if only conclusion I is true,
b) if only conclusion II is true,
c) if either I or II is true.
d) if neither I nor II is true.
e) if both I and II are true.
31. Statements: $U+V, W-Y, Y \times U$ Conclusions:
I. $W+U$
II. $W \div V$
32. Statements: $B \div A, D \times E, E+A$

Conclusions:
I. $D+A$
 ? Crack

II. $B \div E$
33. Statements: $S \times Q, R+T, R-S$

Conclusions:
I. $S+T$
II. $Q=T$
34. Statements: $M \div N, P \times Q, P+N$

Conclusions:
I. $N+Q$
II. $N-Q$
35. Statements: $G-H, K \times L, L-G$

Conclusions:
I. $G \div K$
II. $L-H$

Directions (Q. 36-40): In the following questions the symbols @, $c, \pm, ?$ and $\$$ are used with the following meanings:

1. $A$ @ $B$ means $A$ is neither equal to nor smaller than $B$.
2. $A$ c $B$ means $A$ is neither greater nor smaller than $B$.
3. $A £ B$ means $A$ is not equal to $B$.
4. $A$ ? $B$ means $A$ is neither greater than nor equal to $B$.
5. A $\$ B$ means $A$ is either greater 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
a) if only conclusion I is true
b) if only conclusion II is true
c) if either I or II is true
d) if neither I nor II is true
e) if both I and II are true
36. Statements: $N$ ? S, $S$ @ $P, P £ M$

Conclusions:
I. $S @ M$
II. $P c N$
37. Statements: $J c P, P \$ N, J £ H$

Conclusions:
I. JcN
II. $H @ P$

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38. Statements: Z @ D, F c D, F \$ G

Conclusions:
I. $D c G$
II. Z@G

39. Statements: $L$ @ T, P ? T, $K \$ L$

Conclusions:
I. L@P
II. $K @ T$
40. Statements: $R$ c $U, U$ ? $Q, W \$ R$

Conclusions:
I. WcU
II. $W @ U$

Directions (Q. 41-45): In the following questions, certain symbols are used with the following meanings:

1. A \# B means $A$ is not greater than $B$.
2. A \$ B means $A$ is neither smaller than nor equal to $B$.
3. A ? B means $A$ is neither greater than nor smaller than $B$.
4. $A * B$ means $A$ is neither greater than nor equal to $B$.
5. A @ B means A is not smaller than 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
a) if only conclusion I is true;
b) if only conclusion II is true;
c) if either I or II is true;
d) if neither I nor II is true; and
e) if both I and II are true.
41. Statements: $P \$ Q, R$ @ $S, P * R$

Conclusions:
I. $Q * R$
II. $P$ \# S
42. Statements: $U \$ V, W^{*} X, U$ @ $X$

Conclusions:
I. $V @ X$
II. $V * X$
43. Statements: $K$ \# T, $D \$ F, T * F$

Conclusions:
I. $K^{*} D$
II. $D \$ T$
44. Statements: M\$N, G@H, N?H


Conclusions:
I. $M @ H$
II. $M \$ G$



45. Statements: $G @ M, N \# L, G^{*} L$

Conclusions:
I. $G @ N$
II. $L \$ M$

Directions (Q. 46-50): In the following questions, the symbols @, \&, *, \$ and ? are used with the following meanings:

1) $P$ ? Q means $P$ is either equal to or smaller than $Q$.
2) $P \$ Q$ means $P$ is neither greater than nor smaller than $Q$.
3) $P * Q$ means $P$ is neither greater than nor equal to $Q$.
4) $P$ @ $Q$ means $P$ is either greater than or equal to $Q$.
5) $P \& Q$ means $P$ is not 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
a) if only conclusion I is true;
b) if only conclusion II is true;
c) if either 1 or II is true;
d) if neither I nor II is true; and
e) if both I and II are true.
46. Statements: $K \$ M, N \& M$, $J @ K$

Conclusions:
I. J ? M
II. $K \$ N$
47. Statements: $K$ @ $R, L \& B, B$ ? $K$

Conclusions:
I. B ? R
II. $R * L$
48. Statements: J*M, W\$E, J@W

Conclusions:
I. M? W
II. J ? E
49. Statements: $R$ @ S, S ? U,T $\$$ R

Conclusions:
I. T\$S
II. T? U
50. Statements: $A * B, B ? C, C$ @ $D$ Conclusions:
I. $A \$ D$
II. B? D

Directions (Q.51-57): In the following questions the symbols + , *, ?, @ and S are used with the following meanings:

1) $P+Q$ means $P$ is neither smaller nor greater than $Q$.
2) $P \times Q$ means $P$ is neither equal to nor smaller than $Q$.
3) $P$ ? $Q$ means $P$ is neither greater than nor equal to $Q$.
4) $P$ @ $Q$ means $P$ is either greater than or equal to $Q$.
5) $P \$ Q$ means $P$ is not equal to $Q$.
51. Statements: $P \$ Q, Q \times R, P+R$

Conclusions:
I. $Q \times P$
II. $P$ ? $Q$
III. $R \times P$
A. I only
B. I and II only
C. Either I or III only
D. All I,II and III
E. None follows
52. Statements: $A+B, B \$ C, C$ ? $A$

Conclusions:
I. C $\$$ A
II. $B+C$
III. C ? A
A. None follows
B. Only I
C. Only II
D. Only III
E. Only II \& III
53. Statements: $Y @ Z, Z \times Q, Q \$ P$

## Conclusions:

I. $Y$ ? $Q$
II. $Y$ ? P
III. Z @ P
A. None follows
B. Only I
C. Only II
D. Only III
E. Only II \& III
54. Statements: $E \times F, F$ @ $L, L+N$

Conclusions:
I. $N+F$
II. $E \times L$
III. $E \times N$
A. None follows

B. Only I
C. Only II
D. Only III
E. Only II \& III
55. Statements: $H @ J, J$ ? $K, K \times M$

Conclusions:
I. $H$ @ $M$
II. $M \times J$
III. $H \times K$
A. None follows
B. Only I
C. Only II
D. Only III
E. Only II \& III
56. Statements: $M @ T, T+V, V ? E$

Conclusions:
I. $V+M$
II. $V$ ? $M$
III. $E \times T$
A. Only either I or II
B. Only III
C. Only I \& II
D. All I, II \& III
E. Only either I or II and III
57. Statements: $H @ J, J$ ? $K, K \times M$

Conclusions:
I. $H$ @ K
II. $M \times H$
III. $H \times K$
A. None follows
B. Only I
C. Only II
D. Only III
E. Only II \& III

Directions (Q.58-62): In the following questions the symbols *, $\times, S$, @ and + are used with the following meaning:

1) 'PxQ' means ' $P$ is neither smaller nor greater than $Q$ '
2) ' $P @ Q$ ' means " $P$ is neither equal to nor greater than $Q$ '
3) ' $P * Q$ ' means ' $P$ is either equal to or smaller than $Q$ '
4) ' $P+Q$ ' means ' $P$ is neither equal to nor smaller than $Q$ '.
5) ' $P \$ Q$ ' means ' $P$ is not equal to $Q$ '. $S$ $\square$

58. Statements: $D * F, F \$ M$, $M @ K$

Conclusions:
I. $F$ @ K
II. $D$ @ K
III. $D * M$
A. None follows
B. Only I
C. Only II
D. Only III
E. Only II \& III
59. Statements: $K+M, M @ R, R \times T$

Conclusions:
I. $K+T$
II. $T+M$
III. $R+K$
A. None follows
B. Only I
C. Only II
D. Only III
E. Only II \& III
60. Statements: $T @ M, M * R, R \times N$

Conclusions:
I. $M \times N$
II. $M$ @ $N$
III. $R \times N$
A. I only
B. II and III only
C. Either I or II only
D. All I,II and III
E. None follows
61. Statements: $B \$ N, N \times R, R+T$

Conclusions:
I. B \$ R
II. $T$ @ $N$
III. $N+T$
A. Only either I or II
B. Only III
C. Only I \& II
D. All I, II \& III
E. Only either I or II and III
62. Statements: $N \times P, K+P Q @ K$ ? Crack With USo.
Conclusions:
I. $K+N$
II. $Q+N$
III. $Q+P$
A. None follows
B. Only I
C. Only II
D. Only III
E. Only II \& III

Directions (Q. 63-67): In the following questions, the symbols \$, ©, $\times$, @ and \# are used with the following meanings:

1) $P \$ Q$ means $P$ is not smaller than $Q$.
2) $P$ © $Q$ means $P$ is neither greater than nor smaller than $Q$.
3) $P @ Q$ means $P$ is not greater than $Q$.
4) $P \times Q$ means $P$ is neither smaller than nor equal to $Q$.
5) $P$ \# $Q$ means $P$ is neither greater than nor equal to $Q$.
63. Statements: $Z \$ K, K \times T, T \odot F$

Conclusions:
I. F \# Z
II. $Z \times T$
III. $K \times T$
A. Only II
B. Only I and II
C. Only III
D. Only II and III
E. All follows
64. Statements: $K \times B, B @ D, D \# K$

Conclusions:
I. $B$ @ K
II. B \# K
III. $K \times D$
A. Only II
B. Only I and II
C. Only III
D. Only II and III
E. None of these
65. Statements: $N \odot R, R @ M, M \$ J$

## Conclusions:

I. $N \subset M$
II. $N$ \# M
III. $R \times J$
A. Ante fifier forlt Exams? Crack with US...
B onl
C. Only I \& II
D. All I, II \& III
E. Only either I or II and III
66. Statements: S \$ T, T@R, R \# M

Conclusions:
I. $M \times T$
II. $R \times S$
III. $M \oplus T$
A. None follows
B. Only I
C. Only II
D. Only III
E. Only II \& III
67. Statements: $H @ V, V @ M, M \times R$

## Conclusions:

I. $R \times H$
II. $H \times R$
III. $H \times M$.
A. None follows
B. Only I
C. Only II
D. Only III
E. Only II \& III

Directions (Q. 68-72): In the following questions, the symbol @, ©, *, \$ and \# is used with the following meaning:
' $A \odot B$ ' means ' $A$ is not smaller than $B$ '.
' $A$ * $B$ ' means ' $A$ is not greater then $B$ '.
'A @ B' means 'A is neither smaller than nor equal to $B^{\prime}$.
'A \$ B' means ' $A$ is neither smaller than nor greater than $B$ '.
' $A$ \# $B$ ' means ' $A$ is neither greater than nor equal to $B$ '.
68. Statements: Z\#N, $F \bigcirc N, F * K$

Conclusion:
I. $K \$ N$
II. $K$ @ Z
III. $K$ © $N$

A. Only II
B. Only I and II
C. Only III
D. Only II and III
E. None of these

I. $M \$ D$
II. $D$ @ $M$
III. $K$ @ $T$
A. I only
B. I and II only
C. Either I or II only
D. All I,II and III
E. None follows
70. Statements: $W \bigcirc A, B * A, B @ M$

Conclusions:
I. B \# W
II. W \$ B
III. W @ M
A. Only either I or II
B. Only III
C. Only I \& II
D. All I, II \& III
E. Only either I or II and III
71. Statements: $J * M, M \$ N, N \# T$

Conclusions:
I. T @ J
II. T \$ J
III. T @ M
A. Only I and II
B. Only II and III
C. Only I and III
D. None follows
E. None of these
72. Statements: $V^{*} F, F @ R, R \odot G$ Conclusions:
I. $G$ \# V
II. $G$ @ $V$
III. V @ R
A. Only I and II
B. Only II and III
C. Only I and III
D. None follows
E. None of these

Directions (Q 73-80): In the questions given below, certain symbols are used with the following meanings:

1) $P \$ Q$ means $P$ is neither equal to nor smaller than $Q$.
2) $P$ © $Q$ means $P$ is not smaller than $Q$.
3) $P * Q$ means $P$ is neither greater nor smaller than $Q$.
4) $P$ \# $Q$ means $P$ is neither greater than nor equal to $Q$.
5) $P$ @ $Q$ means $P$ is not greater than $Q$.
73. Statement: $M \# K, K * D, D @ P$

Conclusions:
I. $M$ @ $P$
II. $M * P$
III. P \$ K
A. None follows
B. Only I
C. Only II
D. Only III
E. Only II \& III

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## Conclusions:

I. $W \$$ B
II. M \# W
III. T \$ B
A. I only
B. I and II only
C. Either I or III only
D. All I, II and III
E. None follows.
75. Statements: $H^{*} D, D \# R, R \odot N$

Conclusions:
I. $N * H$
II. $N \$ H$
III. H \$ R
A. Only I and II
B. Only II and III
C. Only I and III
D. None follows
E. None of these
76. Statements: Z@R,R@D, D\#T

Conclusions:
I. D \# Z
II. Z \# T
III. $R$ \$ $T$
A. None follows
B. Only I
C. Only II
D. Only III
7.
E. Only II \& III
77. Statement: $Q \# P, P @ F, F * M$

Conclusions:
I. M \$ P
II. $P * M$
III. $M \$ Q$
A. Only either I or II
B. Only III
C. Only I \& II
D. All I, II \& III
E. Only either I or II and III
78. Statements: E\$J, J\#H, H®M

Conclusions:
I. $E \$ M$
II. J \$ M
III. E \$ H
A. Only I and II
B. Only II and III
C. Only I and III
D. None follows
E. None of these.
79. Statements: $R \odot P, P \$ M, M @ D$

Conclusions:
I. $D \$ R$
II. $M$ \# R
III. $D \$ P$
A. None follows
B. Only II \& III
C. Only I
D. Only II
E. Only III
80. Statements: $F \# K, K \odot D, N @ D$ Conclusions: $\square$
I. $N * K$
II. $F \$ D$
III. $N$ \# K.
A. I only
B. I and II only
C. Either I or III only
D. All I,II and III
E. None follows.
81. Statements: $H \% J, J ® N, N @ R$

Conclusions:
I. $R \% J$
II. H @ J
III. $N$ @ H
(1) Only II
(2)Only I and III
(3) Only I
(4) Only III
(5) None follows
82. Statement: $M$ @ J, J \$ T, T © N

Conclusions:
I. N \# J
II. $T$ \% M
III. $M$ @ $N$
(1) Only I and II
(2) Only II and III
(3) Only I and III
(4) None follows
(5) All follows
83. Statement: $D$ © $K, K \# F, F @ P$

Conclusions:
I. $P$ @ $D$
II. K \# P
III. F \$ D
(1) Only II
(2) Only I and II
(3) Only III
(4) Only II and III
(5) None of These
84. Statement: $K \# N, N \$ T, T \% J$

Conclusions:
I. J @ N
II. $K @ T$
III. T @ K
(1) None follows
(2) Only I and II
(3) Only II and III
(4) Only I and III
(5) None of These
85. Statement: $M @ D, D \bigcirc V, V \$ W \backsim \underbrace{}_{0}$ ?
Conclusions:
I. W @ M
II. $M \% V$
III. D \$ W
(1) Only I and II
(2) Only II and III
(3) Only I and III
(4) Only III
(5) None of These

In the following questions (86-90), the symbol $\times, \partial, \%, \mathbb{C}, @$, are used with the following illustrations.
$P \% Q$ means $P$ is not smaller than $Q$
$P$ © $Q$ means $P$ is neither smaller than nor equal to $Q$
$P \times Q$ means $P$ is neither greater than nor equal to $Q$
$P \partial Q$ means $P$ is not greater than $Q$
$P$ @ $Q$ means $P$ is neither greater than nor smaller than $Q$
86. Statement - R $\partial \mathrm{K}$; $K x$ M ; M@ $J$

Conclusions :
I. $J$ © $K$
II. $M$ © $R$
III. $R \times J$
A. Only I \& I
B. Only II \& III
C. Only I \& III
D. All I, II \& III
E. None of these
87. Statements $-Z @ M ; M \oplus K ; K x F$

Conclusions :
I. $F$ © $Z$
II. $K x Z$
III. $F$ © $M$
A. None follows
B. Only I
C. Only II
D. Only III
E. Only II \& III
88. Statements-V\%H;H@F;FวE

Conclusions :
I. F @ V
II. F $x V$
III. $E$ \% H
A. Only either I or II
B. Only III
C. Only I \& II

D. All I, II \& III
E. Only either I or II and III
89. Statements - W $\mathbb{C} T ; T \partial N ; N \% D$

Conclusions :
I. $D \times T$
II. $W$ © $N$
III. $D$ @ $T$
A. None follows
B. Only I
C. Only II
D. Only III
E. Only I \& II
90. Statements - Y @ $G$; $G$ © $K ; K x R$

Conclusions :
I. $R$ © $Y$
II. $K x Y$
III. $R$ © $G$
A. None follows
B. Only I
C. Only II
D. Only III
E. Only II \& III

In the following questions (91-95), the Symbols @, ©, \$ , \% and \# are used with the following meanings as illustrated below.
'A \$ B' means ' $A$ is not smaller than $B$ '.
'A \# B' means 'A is not greater then $B$ '.
'A @ B' means ' $A$ is neither smaller than nor equal to $B$ '.
'A © $B$ ' means 'A is neither smaller than nor greater than $B$ '.
' $A$ \% B' means 'A is neither greater than nor equal to $B$ '.
91. Statements: $H \% J, J @ N, N @ R$

Conclusions:
I. $R \% J$
II. H @ J
III.N @ H
A. Only II
B. Only I and III
C. Only I
D. Only III
E. None of these


Conclusions:
I. N \# J
II. $T$ \% M
III.M @ N
A. Only I and II
B. Only II and III
C. Only I and III
D. None follows
E. All follows
93.Statements: $D$ © $K, K \# F, F$ @ $P$

Conclusions:
I. $P$ @ $D$
II. K \# P
III.F \$ D
A. Only II
B. Only I and II
C. Only III
D. Only II and III
E. None of these
94.Statements: $K$ \# N, N \$ T, T \% J

Conclusions:
I. J @ N
II. $K$ @ T
III.T @ K
A. Only I and II
B. Only II and III
C. Only I and III
D. None follows
E. None of these
95. $B$ © $K, K \# L, L @ P$

Conclusions:
I. P @ B
II. K \# P
III.L \$ B
A. Only II
B. Only I and II
C. Only III
D. Only II and III
E. None of these

In the following questions (96-100), the Symbols @, \#, \$, \% and * are used with the following meanings as illustrated below.
'A \$ B' means 'A is not smaller than B'.
' $A$ \% B' means ' $A$ is not greater then $B$ '.
' $A$ @ $B$ ' means ' $A$ is neither smaller than nor equal to $B$ '.

' $A$ * $B$ ' means ' $A$ is neither greater than nor smaller than $B$ '.
' $A$ \# B' means ' $A$ is neither greater than nor equal to $B$ '.
In each of the following question assuming the given statements to be true, find out which of the three conclusions I,II and III given below them is/are definitely true.
96. Statements: $D$ * $Q, Q$ @ L, $L \$ B, B \# G$

Conclusions:
I. $D$ @ $B$
II. $B * D$
III. $G$ @ $L$
A. Either I or II only
B. I and II only
C. I only
D. II and III only
E.None of these
97. Statements: Z @ Y, Y \# K, K \% M, M @ T

Conclusions:
I. Z @ M
II. $Y$ @ $T$
III.Z \# K
A. I only
B. II and III only
C. Either I or II only
D. All I,II and III
E. None of these
98.Statements: P \# M, M \% R, R * T, T \# L

Conclusions:
I. P \# M
II. $P * R$
III.M \% L
A. I only
B. I and II only
C. Either I or III only
D. All I,II and III
E. None follows
99.Statements: $F$ @ $H, M \% H, M \$ R, G * M$

Conclusions:
I. F $\$ R$
II. F @ R
III. $H \$ G$
A. I only
B. II and III only
C. Either I or III only

D. All I,II and III
E. None follows
100. Statements: $T$ @ $H, S \% H, S \$ R, G * S$

Conclusions:
I. T \$ R
II. $T$ @ $R$
III.H \$ G
A. I only
B. II and III only
C. Either I or III only
D. All I,II and III
E. None follows.

Directions (101-105): In these questions, certain symbols have been used to indicate relationships between elements as follows:
a) $P$ @ $Q$ means $P$ is not smaller than $Q$.
b) $P$ \# $Q$ means $P$ is neither smaller than nor equal to $Q$.
c) $P \% Q$ means $P$ is neither greater than nor smaller than $Q$.
d) $P \$ Q$ means $P$ is not greater than $Q$.
e) $P * Q$ means $P$ is neither greater than nor equal to $Q$.
101. Statements: $S$ @ $V, V \# M, V \% F$

Conclusions:
I. $S$ \# M
II. $S$ @ F
III. M \# F
A. None follows
B. Only I follow
C. Only II follow
D. Only III follow
E. Only II \& III follows
102. Statements: $B \$ D, D * F, R \% B$

Conclusions:
I. F \# R
II. $R \$ D$
III. B \# F
A. Only I and II follows
B. Only II and III follows
C. Only I and III follows
D. None follows
E. All follows

103. Statements: V \# I , I @ J , J \$ P

Conclusions:
I. V \# J

II. V \# P
III. P \# I
A. Only II follows
B. Only I and III follows
C. Only I follow
D. Only III follow
E. None of these
104. Statements: $C * D, D \# T, T \$ J$

Conclusions:
I. $C * T$
II. $D$ \$ J
III. J \# C
A. None follows
B. Only I follow
C. Only II follow
D. Only III follow
E. Only II \& III follows
105. Statements: $R \$ W, W \% J, J$ @ $K$

Conclusions:
I. $R \$ K$
II. W @ K
III. J @ R.
A. Only I and II follows
B. Only II and III follows
C. Only I and III follows
D. None follows
E. All follows

Directions (106-110): In these questions, certain symbols have been used to indicate relationships between elements as follows:

1) $A$ @ $B$ means $P$ is not smaller than $Q$.
2) $A$ \# B means $P$ is not greater than $Q$.
3) $A \$ B$ means $P$ is neither greater than nor smaller than $Q$.
4) $A+B$ means $P$ is neither smaller than nor equal to $Q$.
5) $A \% B$ means $P$ is neither greater than nor equal to $Q$.
106. Statements: $Y \$ W$, W @ O , O \# H

Conclusions:
I. $Y+O$
II. $H$ \% W
III. $H+Y$
A. None follows
B. Only I follow
C. Only II follow

D. Only III follow
E. Only II \& III follows
107. Statements: $B+M, M @ Z, Z \$ C$

Conclusions:
I. $C+M$
II. $B+Z$
III. $C+B$
A. Only II follows
B. Only I and III follows
C. Only I follow
D. Only III follow
E. None of these
108. Statements: $N @ S, S \% M, M+H$

Conclusions:
I. M \# N
II. $N+H$
III. $M+N$
A. Only II follows
B. Only I and II follows
C. Only III follows
D. Only II and III follows
E. None of these
109. Statements: $L$ @ $U, U+A, A \$ G$

Conclusions:
I. $G \$ L$
II. $L$ \# $G$
III. $L+A$
A. None follows
B. Only I follow
C. Only II follow
D. Only III follow
E. Only II \& III follows
110. Statements: J \# W, W+A, A @ F Conclusions:
I. F \$ W
II. $F \%$ W
III. $J+F$
A. None follows
B. Only I follow
C. Only II follow
D. Only III follow
E. Only II \& III follows

Directions (111-115): In these questions, certain symbols have been used to indicate relationships between elements as follows:

1) $A \% B$ means $A$ is either smaller than or equal to $B$.
2) $A-B$ means $A$ is greater than $B$.
3) $A$ \# $B$ means $A$ is neither greater than nor smaller than $B$.
4) $A \$ B$ means $A$ not smaller than $B$.
5) $A @ B$ means $A$ is either greater than or equal to $B$.
111. Statements: $U \# F, F \$ W, W-K$

Conclusions:
I. $K \$ U$
II. $K$ \# U
III. W @ U
A. Only I and II follows
B. Only II and III follows
C. Only I and III follows
D. None follows
E. All follows
112. Statements: $H$ @ $D, D-B, B \$ W$

Conclusions:
I. $B \$ H$
II. $W \$ H$
III. D \$ W
A. Only II follows
B. Only I and III follows
C. Only I follow
D. Only III follow
E. None of these
113. Statements: $V \$ F, F \% P, P-J$

Conclusions:
I. J \$ F
II. $P-V$
III. $V-J$
A. None follows
B. Only I follow
C. Only II follow
D. Only III follow
E. Only II \& III follows
114. Statements: $Q \$ T, T \% G, Q-N$

Conclusions:
I. $Q \$ G$
II. $N \$ T$
III. $N-G$
A. Either I or II only follows

B. I and II only follows
C. Only I follow
D. II and III only follows
E. None of these
115. Statements: A \$ T, T \% C, C @ F

Conclusions:
I. A \# T
II. A @ F
III. $C-A$.
A. Only II follows
B. Only I and II follows
C. Only III follows
D. Only II and III follows
E. None of these
116. Statements: $J>S>=R\langle U, N>R=E$

Conclusions:
I. $J>E$
II. $S>E$
III. $U>S$
A. Only II follows
B. Only I and III follows
C. Only III follows
D. Only I follow
E. None of these
117. Statements: $Q=N>X=\langle Z, L\rangle N$

Conclusions:
I. $L>Z$
II. $Q<L$
III. $L>X$
A. Only II follows
B. Only I and II follows
C. Only III follows
D. Only II and III follows
E. None of these
118. Statements: $H<Q=T=\langle P, V\rangle Q$ Conclusions:
I. $V>P$
II. $H>V$
III. $V>H$
A. Only I and II follows
B. Only II and III follows
C. Only I and III follows

D. None follows
E. All follows
119. Statements: $J=<T<L=R, J=<C=Q<B$

Conclusions:
I. $B>=T$
II. $Q=<L$
III. $R>=Q$
A. None follows
B. Only I follow
C. Only II follows
D. Only III follows
E. Only II \& III follows
120. Statements: $J=\langle K<L=N, J>=C=Q<B$

Conclusions:
I. $N>C$
II. $K>=Q$
III. $J>B$
A. Only I and II follows
B. Only II and III follows
C. Only I and III follows
D. None follows
E. All follows
121. Statements: $A>=N=S>J, P>=N$

Conclusions:
I. $A>=J$
II. $P>J$
III. $N<J$
A. Only II follows
B. Only I and III follows
C. Only III follows
D. Only I follow
E. None of these
122. Statements: $P>M>=F<R, H=<P$

Conclusions:
I. $H>F$
II. $P>R$
III. $F>P$
A. Only I and II follows
B. Only II and III follows
C. Only I and III follows
D. None follows E. All follows
123. Statements: $L>=M=Z, B<I=<Z$

Conclusions:
I. $M>I$
II. $L>B$
III. $Z>L$
A. None follows
B. Only I follow
C. Only II follows
D. Only III follow
E. Only II \& III follows
124. Statements: $D=U=\langle Q, P\rangle J\rangle=D$

Conclusions:
I. $P>U$
II. $J>=Q$
III. $Q>P$
A. Either I or II only follows
B. I and II only follows
C. Only I follow
D. II and III only follows
E. None of these
125. Statements: $E<X=S>O=Z$

Conclusions:
I. $X>Z$
II. $Z<S$
III. Z>E
A. Only II follows
B. Only I and II follows
C. Only III follows
D. Only II and III follows
E. None of these
126. Statements: $A>M>=D>H=<R=<Y<W$

Conclusions:
I. $A>H$
II. $W>H$
III. $R<W$
IV. $M>Y$
A) Only I, II and III follows
B) Only II follows
C) Only I and II follows
D) Only I and either II or IV follows
E) All I, II, III and IV follows
127. Statements: $M>U\rangle L=\langle N ; L\rangle=Y>A$

Conclusions:
I. $Y<N$
II. $M>N$
III. $N=Y$
IV. $M>A$
A) Only either II or III follows
B) Only IV and either I or III follows
C) Only IV follows
D) Only II follows
E) Only III follows
128. Statements: $G>=B>D=F ; L<B<M$

Conclusions:
I. $M<J$
II. $G>L$
III. $D>L$
IV. $F<M$
A) Only II follows
B) Only I and III follows
C) None follows
D) Only II and IV follows
E) Only I and II follows
129. Statements: $E>F=<O=\langle L ; F>=U<T$

Conclusions:
I. $E>L$
II. $T<F$
III. $O>T$
IV. $L<U$
A) Only I follows
B) Only II follows
C) Only III follows
D) None follows
E) Only I and IV follows
130. Statements: $N>C=\langle Y=\langle R<U=Z>=E$ Conclusions:
I. $N>R$
II. $Z=\langle R$
III. $R>E$
IV. Z>C
A) Only I and II follows
B) Only IV follows
C) None follows
D) Only II and IV follows
E) Only II and III follows
131. Statement: $Q>N>=R=B=<L<J$

Conclusions:
I. $J>R$
II. $Q>=L$
III. $Q>B$
A. Only I and II follows
B. Only II and III follows
C. Only I and III follows
D. None follows
E. None of these
132. Statements: $U>=R=C, C>=N>M$

Conclusions:
I. $R>N$
II. $U>M$
III. $R>=M$
A. None follows
B. Only I follow
C. Only II follows
D. Only III follows
E. Only II \& III follows
133. Statements: $D>R\langle Y, V\rangle W\rangle=K=Y$

Conclusions:
I. $W>D$
II. $V=\langle Y$
III. $V>R$
A. Only II follows
B. Only I and III follows
C. Only III follows
D. Only I follow
E. None of these
134. Statement: $E>D=G=<H=\langle I=L$

Conclusions:
I. $L>D$
II. $D=L$
III. $E>I$
A. Either I or II only follows
B. I and II only follows
C. Only I follow
D. II and III only follows
E. None of these
135. Statement: $L=B>=Z=U<P=R$

Conclusions:
I. $L>=U$
II. $Z<R$
III. $B>R$
A. Only II follows
B. Only I and II follows
C. Only III follows
D. Only II and III follows
E. None of these
136. Statement: $H\rangle=P=R\rangle=V\langle G\rangle=E\rangle S$

Conclusions:
I. $H>=V$
II. $R>E$
III. $G>P$
A. Either I or II only follows
B. I and II only follows
C. Only I follow
D. II and III only follows
$E$. None of these
137. Statement: $Q\rangle=O=R\rangle=N\langle F\rangle=K\rangle S$

Conclusions:
I. $F>O$
II. $S<R$
III. $Q>N$
A. Only I and II follows
B. Only II and III follows
C. Only I and III follows
D. None follows
E. None of these
138. Statement: $A=Z>=D<V<M=<N$

Conclusions:
I. $M>Z$
II. $D<N$
III. $A>V$
A. Only II follows
B. Only I and III follows
C. Only III follows
D. Only I follow
E. None of these

139. Statement: $J<Y=<S>U=W<L<Q=T$

Conclusions:
I. $Q>U$

II. $W<S$
III. $T>U$
A. Only I and II follows
B. Only II and III follows
C. Only I and III follows
D. None follows
E. All follows
140. Statement: $K<X=\langle V>U=Z<L<P=R$

Conclusions:
I. $K<Z$
II. $R>U$
III. $V>Z$
A. None follows
B. Only I follow
C. Only II follows
D. Only III follows
E. Only II \& III follows
141. Statement: $Q>H=U>=C=J<E$

Conclusions:
I. $Q>J$
II. $E>H$
III. $H>=J$
A. Only I and II follows
B. Only II and III follows
C. Only I and III follows
D. None follows
E. All follows
142. Statement: $W>H=I>=C=L<E$

Conclusions:
I. $E<W$
II. $I>=L$
III. $E>I$
A. Only II follows
B. Only I and III follows
C. Only III follows
D. Only I follow
E. None of these
143. Statement: $P=R\rangle=E\langle S=N\rangle=T$

Conclusions:
I. $P>T$
II. $N>R$
III. $S>P$ $\qquad$
A. None follows
B. Only I follow
C. Only II follows
D. Only III follows
E. Only II \& III follows
144. Statements: $C>B>=L, Q=E>P=C$

Conclusions:
I. $Q>B$
II. $L<E$
III. $Q>L$
A. Only I and II follows
B. Only II and III follows
C. Only I and III follows
D. None follows
E. All follows
145. Statement: $D=\langle H=J=\langle K\rangle=P>R$

Conclusions:
I. $D=K$
II. $K>D$
III. $K>R$
A. Either I or II and III follows
B. I and II only follows
C. Only I follow
D. II and III only follows
E. None of these
146. Statement: $A>=R>S=Y<W<V$

Conclusions:
I. $A>Y$
II. $W>R$
III. $V>S$
A. Only I and II follows
B. Only II and III follows
C. Only I and III follows
D. None follows
E. None of these
147. Statements: $A>F>=G, D<H=G$

Conclusions:
I. $A>=H$
II. $F>=D$
III. $D>=G$
A. None follows
B. Only I follow

C. Only II follows
D. Only III follows
E. Only II \& III follows
148. Statements: $O=\langle U\langle L, P>=I<C=L$

Conclusions:
I. $U>I$
II. $C>O$
III. $L>I$
A. Only I and II follows
B. Only II and III follows
C. Only I and III follows
D. None follows
E. All follows
149. Statement: $R>=U>F=E>=X>Z$

Conclusions:
I. $R>E$
II. $U>X$
III. $F>Z$
A. Only I and II follows
B. Only II and III follows
C. Only I and III follows
D. None follows
E. All follows
150. Statement: $B>D\langle T\rangle=V=M\rangle=X>Z$

Conclusions:
I. $T>X$
II. $T=X$
III. $T>=Z$
A. Either I or II only follows
B. I and II only follows
C. Only I follow
D. II and III only follows
E. None of these


## Solutions

1) Option D. $P>Q, R\langle P, R>=O=Q>=R$
2) Option C. $P=\langle Q, T=R, R>P=T=<Q$
3) Option E. $P=Q, L=M, P>L=Q>M$ and $M<P$
4) Option D. $P>M>L$; $L>N=Q$; $=Q<S=R$
5) Option $D . P>=Q, Q=T$ and $T>=L=Q>=L$
6) Option $B \quad B>V .(i) ; K<C$..(ii) ; $C=<B \ldots$..iii) $V>=C$ not follows $B>K$ follows
7) Option D. $K>T . .(i) ; S=K \ldots$..(ii); $T=<R \ldots$..(iii)

Neither nor follows
8) Option C. $U=M . .($ (i); $P>=U . .(i i) ; M>=B \ldots$..(iii) $P=B$ of $P>B$ Either or follows
9) Option $D . L>=N \ldots$...(i); $J<=P \ldots$ (ii); $P>=L \ldots$ (iii)

Neither nor follows
10) Option E. $H>=G$..(i); $D>E$...(ii); $H=E . . .(i i i)$
$D>H$ and $G<D$
Both follows
11) Option D. $T=G, K>P, M<T, P>=M$

Neither nor follows
12) Option B. $R>=N, S=\langle B, A\rangle R, B=A$
$S=N$ not follows
$A>N$ follows
13) Option C. $G=K, F>J, K>=Q, Q>=F$

Either or follows
14) Option A $W>S, K=\langle Z, U>=W, S=K$ $U>K$ follows Z>S not follows
15) Option E. $G=E, D<K, E<S, K=<G$

Both follows
16) Option A. $P>Q \ldots(i), M<N \ldots(i i), N<Q$
$P>M$ follows.
$P>N$. not follows
17) Option $D$. $D<X \ldots$... (i), $F>Y \ldots$... (ii), $D>F \ldots$... (iii)

Neither nor follows
18) Option B. $M\langle P, S\rangle T, M\rangle=T$
$S=M$ not follows
$T<P$ follows
19) Option E. $U=V, X>W, U<W$

Both follows
20) Option $C G>H, J=<K, H=K$
$H>J$
$J=H$
Either or follows.
21) Option B. $M<N \ldots(i), T>U \ldots$ (ii); $N<U \ldots$ (iii)
$M<T$ not follows
$T>N$ follows
22) Option E.P>T, .. (i); $G<N \ldots$...ii), $T>N$.
$P>N$
$G<T$
Both follows
23) Option D. $P<Q \ldots$. (i); $R>S \ldots$. (ii); $Q>S \ldots .$. (iii)

Neither nor follows
24) Option D. $J$ < K... (i); $K=F$...(ii); $H>F$... (iii)

Neither nor follows
25) Option A. $D>F$.... (i); $G>H$..... (ii) $F<H$.
$G>F$ follows
$D>H$ not follows.
26) Option C. $B<D \ldots$. (i), $E<T \ldots \ldots$ (ii), $T>P \ldots$...(iii), $P>B \ldots$ (iv)

Either or follows
27) Option $E . E>F \ldots$... $(i), G<H \ldots$ (ii), $H=E \ldots .$. (iii), $G>K$ (iv)
$H>K$
$H>F$
Both follows
28) Option A. $P<Q \ldots$ (i), $N=M \ldots$ (ii), $M>R \ldots$ (iii), $R>P \ldots$ (iv)
$N>P$ follows
$Q<M$ not follows
29) Option B. $D<T$; $E \square V ; F \square T$; $E>D$
$D=<V$ follows
$D<F$ not follows
30) Option D. $T>=U$; $U=\langle W$; $V>L$; $W<V$

Neither nor follows
31) Option $D . U>V \ldots$. (i), $W<Y \ldots$ (ii), $Y>U$ $\qquad$
Neither nor follows
32) Option E. $B<A \ldots$... (i), $D>E \ldots$... (ii), $E>A$.
$D>A$.
$B<E$.
Both follows
33) Option A.. $S>Q \ldots(i), R>T \ldots$ (ii), $R<S \ldots$
$S>T$ follows
$Q=T$ not follows
34) Option C. $M<N \ldots$ (i), $P>Q \ldots .$. (ii), $P>N$

Either or follows
35) Option B. $G<H \ldots . .(i), K>L \ldots$...(ii), $L<G \ldots$...(iii)
$G<K$ not follows
$L=<H$ follows.
36) Option D. $N<S \ldots$ (i), $S>P \ldots$ (ii), $P \neq M \ldots$ (iii)

Neither nor follows
37) Option $D . \quad J=P \ldots$ (i), $P>=N$... (ii), $J \neq H \ldots$... (iii)

Neither nor follows
38) Option B. $Z>D, F=D, F>=G$
$D=G$ not follows
$Z>G$ follows
39) Option $E . L>T, P\langle T, K\rangle=L$
$L>P$
$K>T$
Both follows
40) Option C. $R=U, U\langle Q, W\rangle=R$
$W=U$
$W>U$
Either or follows.
41) Option A. $P>Q$....
(i) $R>S$
(ii), $P<R$ $\qquad$ (iii)
$R>Q$ follows
$P=<S$ Not follows
42) Option $C . U>V \ldots$. (i), $W<X \ldots .$. (ii), $U>X$
$V>X$
$V=X$
Either or follows
4) Option E. $K<T \ldots(i), D>F \ldots(i i), T<F \ldots$... $i i i)$
$D>T$
$D>K$
Both follows
44) Option D. $M>N, G>=H, N=H$

Neither nor follows
45) Option B. $G>M_{\text {.. (i) }}$, $N>L \ldots$... $\left.i i\right) ~ G<L \ldots$... (iii)
$G>=N$ Not follows
$L>M$ follows.
46) Option D. $K=M, N \neq M, J>=K$

Neither nor follows
47) Option D. $K>=R, L \neq B, B=<K$

Neither nor follows
48) Option D. $J>M, W=E, J>=W$

Neither nor follows
49) Option D. $R>=S, S=\langle U, T=R$

Neither nor follows
50) Option D. $A>B, B=\langle C, C>=D$.

Neither nor follows.
51) Option $D P \neq Q$
(i), $Q>R$
(ii), $P=R$
$Q>P$
$P<Q$
$R>P$
All follows
52) Option $B A=B$
(i) $B \neq C$ (ii), $C<A$ (iii)
$C \neq A$ follows
$B=C$ not follows
$C>=A$ not follows
53) Option $A Y>=Z \ldots$ (i), $Z>Q \ldots$ (ii), $Q \neq P \ldots$ (iii)
$Y<Q$
$Y<P$
$Z>=P$
None follows

54) Option $E E>F$.
(i) $F \quad L \ldots$...ii), $L=N \ldots$.
(iii)
$F>=N$ not follows
$E>$ Lfollows
$E>N$ follows
55) Option A. $H>=J . . .(i), J<K .$. (ii), $K>M . .$. (iii)
I. $H>=M$
II. $M>J$
III. $H>K$

None follows
56) Option $E . M>=T \ldots(i), T=V \ldots .(i i), V<E \ldots . .(i i i)$
I. $V=M$
II. $V<M$
III. $E>T$ follows

Either I or II and III follows
57) Option $A$. $H>=J \ldots$ (i), $J<K \ldots$. (ii), $K>M \ldots$...(iii)
$H>=K$
$M>H$
$H>K$
None follows
58) Option A $D=F, F \neq M, M<K$
$F<K$
$D<K$
$D=<M$
None follows
59) Option $C K>M, M<R, R=T$
$K>T$ not follows
$T>M$ follows
$R>K$ not follows
60) Option C. $T<M, M=<R, R=N$
$M=N$
$M<N$
$R=T$
Either I or II follows
61) Option D. $B \neq N, N=R, R>T$
$B \neq R$
$T<N$
$N>T$
All follows
62) Option B. $N=P, K>P, Q<K$
$K>N$ follows
$Q>N$ not follows
$Q>P$ not follows
63) Option $E . Z>=K \ldots$ (i), $K>T \ldots . .($ ii),$T=F$
$F<Z$
$Z>T$
$K>F$
All follows
64) Option A. $K>B \ldots(i), B=<D \ldots . .(i i), D<K$
$B \boxminus K \boxminus o t$ follows
$B<K$ follows
$K>D$ not follows
65) Option A. $N=R \ldots .(i), R=<M \ldots . .(i i), M>=J$

< $Z$

$\square$ (iii)
$N=M$
$N<M$
$R>J$
Either I or II follows
66) Option B. $S>=T$
$M>T$ follows
$R>S$ not follows
$M=T$ not follows
67) Option A. $H=<V$. (i), $V=M \ldots .(i i), M>R \ldots$. (iii)
$R>H$
$H>R$
$H>M$
None follows
68) Option D. $Z<N$
(i), $F>=N$
....(ii), $F=<K$ .(iii),
$K>N$ not follows
$K>Z$ follows
$K>=N$ follows
69) Option C. $D=T \ldots$ (i), $T>=M \ldots$ (ii), $M<K$.
$M=D$
D> M
$K>T$
Either I or II follows
70) Option $E . W>=A . .($ i $) ; B=<A \ldots$ (ii); $B>M \ldots$ (iii)
$B<W$
$B=W$
$W>M$
Either I or II and III follows
71) Option C. $J=<M \ldots$ (i); $M=N \ldots$..(ii); $N<T \ldots$...(iii)
$T>J$ follows
$T=J$ not follows
$T>M$ follows
72) Option $D$. $V=\langle F \ldots(i) ; F>R \ldots$ (ii); $R>=G \ldots$ (iii)
$G<V$
$G>V$
$V>R$
None follows.
73) Option $A . M<K \ldots(i) ; K=D \ldots$ (ii); $D=<P \ldots$ (iii)
$M=<P$
$M=P$
$P>K$
None follows
74) Option $D . W>=T \ldots$...(i); $T>M \ldots$...(ii); $B<M \ldots$ (iii)
$W>B$ $W>M$ 8 Cuck Mith USooo
$T>B$
All follows
75) Option D. $H=D \ldots .(i) ; ; D<R \ldots .(i i) ; R>=N$
$N=H$
$N>H$
$H>R$
None follows.
76) Option A. $Z=\langle R . .(i) ; R\rangle=D . .(i i) ; D<T . .(i i i)$
$D<Z$
$Z<T$
$R>T$
None follows.
77) Option E. $Q<P$..(i); $P=<F . .(i i) ; F=M . .($ (iii)
$M>P$
$M=P$
$M>Q$

Either I or II and III follows.
78) Option D. $E>J . .(i) ; J<H . . .(i i) ; H>=M . . .(i i i)$
$E>M$
$J>M$
$E>H$
None follows
79) Option B. $R>=P \ldots$ (i); $P>M \ldots$..(ii); $M=<D \ldots$...(iii)
$D>R$ not follows
$M<R$ follows
$D>P$ follows
80) Option C. $F<K \ldots$...(i); $K>D \ldots(i i) ; N<D \ldots$ (iii)
$K<N$
$F>D$
$K=N$
Either I or III follows.
81) Option B. $H<J=N>R$
$R<J$ follows
$H>J$ not follows
$N>H$ follows
82) Option $E . M>J>=T=N$
$N=$ $\quad J$
$T<M$
$M>N$
All follows
83) Option C. $D=K=\langle F\rangle P$
$P>D$ not follows
$K=<P$ not follows
$F>=D$ follows
84) Option A. $K=\langle N\rangle=T<J$
$J>N$

$K>T$
$T>K$
None follows
85) Option $D . M>D=V>=W$
$W>M$ not follows
$M<V$ not follows
$D>=W$ follows
86-90)
$P$ \% Q means $P$ is not smaller than $Q$ $\qquad$ [ $P>=Q]$
$P$ © $Q$ means $P$ is neither smaller than nor equal to $Q$--- [ $P>Q]$
$P \times Q$ means $P$ is neither greater than nor equal to $Q$--------- [ $P<Q$ ]
$P \partial Q \square e a n s P$ is not greater than $Q$ $\qquad$ [ $P=<Q$ ]
$P$ @ $Q$ means $P$ is neither greater than nor smaller than $Q$------- [ $P=Q$ ]
86) Option D. $R=<K<M=J$
$J>K$
$M>R$
$R<J$
All follows
87) Option $C . Z=M>K<F$
$F>Z$ not follows
$K<Z$ follows
$F>M$ not follows
88) Option $E . V>=H=F=\langle E$
$F=V$
$F<V$
$E>=H$
Either I and II and II follows
89) Option $A$. $W>T, N>=T, N>=D$
$D<T$
$W>N$
$D=T$
None follows
90) Option C. $Y=G>K<R$
$R>Y$ not follows
$K<Y$ follows
$R>G$ not follows
91-95)
' $A \$ B$ ' means ' $A>=B$ '
' $A \% B$ ' means ' $A=<B$ '
' $A$ @ $B$ ' means $\quad A>B$
$' A$ * $B$ ' means ' $A=B$ '
' $A$ \# $B$ ' means ' $A<B$ '

$H>J$ not follows
$N>H$ follows
92) Option $E . M>J, J=T, T=N$
$N=J$
$T<M$
$M>N$
All follows.
93) Option C. $D=K, K=F, F>P$
$P>D$ not follows
$K=P$ not follows
$F=D$ follows
94) Option D. $K=N, N=T, T>J$
$J>N$
$K>T$
$T>K$
None follows
95) Option C. $B=K, K=L, L>P$
$P>B$ not follows
$K=P$ not follows
$L=B$ follows .
96) Option C. $Q>L, L=B, B<G$
$D>B$ follows
$B=D$ not follows
$G<L$ not follows
97) Option $E$. $Y<K, K=M, M>T$
$Z>Y$
$Y>T$
$Z<K$
None follows
98) Option A. $P<M, M=R, R=T, T<L$
$P<R$ follows
$P=R$ not follows
$M=L$ not follows
99) Option B. $F>H, M=H, M=R, G=M$
$F=R$ not follows
$F>R$ follows
$H=G$ follows.
100) Option B. $T>H, S=H, S=R, G=S$
$T=R$ not follows
$T>R$ follows
$H=G$ follows.
101) Option B. $S>=V, V>M, V=F$
$S>M$ follows
$S>=F$ not follows
$M>F$ not follows
102) Option $A$. $B=D, D=\langle F, R<B$
$F>R$ follows
$R=<D$ follows
$B>F$ not follows
103) Option C. $V>I, I>=J, J=<P$
$V>J$ follows
$V>P$ not follows
$P>I$ not follows
104) Option A. $C<D, D>T, T=<J$
$C<T$
$D=<J$
$J>C$
None follows
105) Option C. $R=\langle W, W=J, J\rangle=K$
$R=<K$ not follows
$W>=K$ follows
$J>=R$ follows
106) Option A. $Y<W, W\rangle=O, O=\langle H$
$Y>O$
$H=W$
$H>Y$
None follows
107) Option $A . B>M, M>=Z, Z<C$
$C>M$ not follows
$B>Z$ follows
$C>B$ not follows
108) Option B. $N>=S, S=M, M>H$
$M=\langle N$ follows
$N>H$ follows
$M>N$ not follows
109) Option D. $L>=U, U>A, A<G$
$G<L$ not follows
$L<=G$ not follows
$L>A$ follows
110) Option B. $J=\langle W, W\rangle A, A\rangle=F$
$F<W$ follows
$F=W$ not follows
$J>F$ not follows
111) Option D. $U=F, F<W, W\rangle K$
$K<U$
$K=U$
$W>=U$
None follows
112) Option $C . H>=D, D>B, B<W$
$B<H$ follows
W < H not follows
$D$ < W not follows

tion $A . V<F, F=<P, P>J$
$J<F$
$P>V$
$V>J$
None follows
114) Option C. $Q<T, T<G, Q=<N$
$Q<G$ follows
$N$ <T not follows
$N>G$ not follows
115) Option C. $A<T, T=\langle C, C>=F$
$A=T$ not follows
$A>=F$ not follows
$C>A$ follows
116) Option D. $J>S>=R<U, N>R=E$
$J>E$ follows
$S>E$ not follows

$Q>B$ follows
132) Option $C . U>=R=C, C>=N>M$
$R>N$ not follows
$U>M$ follows
$R>=M$ not follows
133) Option C. $D>R\langle Y, V\rangle W\rangle=K=Y$
$W>D$ not follows
$V=<Y$ not follows
$V>R$ follows
134) Option A. $E>D=G=<H=<I=L$
$L>D$
$D=L$
$E>I$
Either I or II follows
135) Option B. $L=B>=Z=U\langle P=R$
$L>=U$ follows
$Z<R$ follows
$B>R$ not follows
136) Option D. $H\rangle=P=R\rangle=V\langle G\rangle=E\rangle S$
$H>=V$ follows
$R>E$ not follows
$G>P$ not follows
137) Option D. $Q\rangle=O=R\rangle=N\langle F\rangle=K\rangle S$
$F>O$
$S<R$
$Q>N$
None follows
138) Option A. $A=Z>=D<V<M=<N$
$M>Z$ not follows
$D<N$ follows
A >V not follows
139) Option $E$. $J<Y=<Y>U=W<L<Q=T$
$Q>U$
$W<S$
$T>U$
All follows
140) Option $E$. $K<X=\langle V>U=Z<L<P=R$
$K<Z$ not follows
$R>U$ follows
$V>Z$ follows
141) Option C. $Q>H=U>=C=J<E$
$Q>J$ follows
E>H not follows
$H>=J$ follows
142) Option A. $W>H=I>=C=L<E$
$E<W$ not follows
$I>=L$ follows
$E>$ I not follows
143) Option A. $P=R\rangle=E\langle S=N\rangle=T$
$P>T$
$N>R$
$S>P$
None follows
144) Option $E$. $C>B>=L, Q=E>P=C$
$Q>B$
$L<E$
$Q>L$

All follows
145) Option A. $D=\langle H=J=\langle K\rangle=P\rangle R$
$D=K$
$K>D$
$K>R$
Either I or II and III follows
146) Option C. $A>=R>S=Y<W<V$
$A>Y$ follows
$W>R$ not follows
$V>S$ follows
147) Option $A . A>F>=G, D<H=G$
$A>=H$
$F>=D$
$D>=G$
None follows
148) Option B. $O=\langle U\langle L, P\rangle=I\langle C=L$
$U>I$ not follows
$C>O$ follows
$L>I$ follows

149) Option $E . R>=U>F=E>=X>Z$
$R>E$
$U>X$
$F>Z$
All follows
150) Option A. $B\rangle D\langle T\rangle=V=M\rangle=X\rangle Z$
$T>X$
$T=X$
$T>=Z$
Either I or II follows.


[^0]:    74. Statements: $W \odot T, T \$ M, B \# M$
