

B 22- Inequality



Ques 1.

$$W \geq D < M < P < A = F$$

Conclusions:

- I. $F > D$
- II. $P < W$

Solution:

To solve Conclusion

I. $F > D$,

Consider the statement from D to F

$$D < M < P < A = F$$

Symbols between D and F are uniform i.e. $<$ which implies D will be definitely lesser than F.

Therefore conclusion I follows

To solve conclusionII. $P < W$ Consider the statement from P to W i.e. $W \geq D < M < P$

Symbols between P and W are not uniform, mixer of lesser than and greater than symbol implies P can't be definitely lesser than W

Therefore Conclusion II doesn't follow**Ques 2.** $H \geq M > F < A = B > S$ **Conclusion:**I. $H > B$ II. $F < S$ **Solution:****To solve Conclusion**I. $H > B$

Consider the statement from H to B

 $H \geq M > F < A = B > S$

Symbols between H and B are mixer of both lesser than and greater than the symbol which implies H cannot be greater than B.

Therefore conclusion I doesn't follow**To solve conclusion**II. $F < S$ Consider the statement from F to S i.e. $F < A = B > S$

Symbols between F and S are mixer of lesser than and greater than symbol implies F can't be definitely lesser than S

Therefore Conclusion 2 doesn't follow**Ques 3.** $B > T > Q > R = F$ **Conclusion:**I. $Q \geq F$ II. $T > F$

Solution:

To solve Conclusion

I. $Q \geq F$

Consider the statement from Q to F

$Q > R = F$

Above statement implies that Q is definitely greater than F

Therefore conclusion I doesn't follow

To solve conclusion

II. $T > F$

Consider the statement from T to F i.e.

$T > Q > R = F$

Symbols between T and F are uniform which consist of only $>$ symbol which implies T will be definitely greater than F

Therefore Conclusion 2 follows

Ques 4.

$H < J, F < H, I \leq J = K$

Conclusion:

I. $H > I$

II. $I \geq F$

Solution:**To solve Conclusion**

I. $H > I$

Since it is split statements combine statement with H and I variable

$H < J \geq I$

Symbol between H and I are mixer of both $>$ and $<$ which implies H can't be definitely greater than I.

Therefore conclusion 1 doesn't follow

To solve conclusion

II. $I \geq F$

Combine the statement of I and F

$F < H < J \geq I$

Symbols between T and F are not uniform which consist of both $<$ and $>$ symbol which implies I can't be \geq F

Therefore Conclusion 2 doesn't follow

Direction (Q5-Q7): Read the information given below and solve the questions that follow.

% means not greater than ($\% \rightarrow \leq$)

& means not smaller than ($\& \rightarrow \geq$)

means neither equal to nor smaller than ($\# \rightarrow >$)

\$ means neither equal to nor greater than ($\$ \rightarrow <$)

@ means neither smaller than nor greater than ($\@ \rightarrow =$)

From the above statements, we can conclude,

Ques5.**Statements**

M \$ K, K & T,
T \$ J

Conclusions:

- I. J # K
- II. T # M
- III. M # J

Solution:

Convert the statement and conclusion from symbols to mathematical operation.

Statement: $M < K \geq T < J$

Conclusion:

- I. $J > K$
- II. $T > M$
- III. $M > J$

To solve Conclusion I

$J > K$, consider statement from J to K

$K \geq T < J$

Since it is the mixer of both $<$ and $>$ symbol

Conclusion 1 is false

To solve Conclusion II

$T > M$, consider statement from T to M

$M < K \geq T$

Since it is the mixer of both $<$ and $>$ symbol

Conclusion 2 is false

To solve Conclusion III

$M > J$, consider statement from M to J

$M < K \geq T < J$

Since it is the mixer of both $<$ and $>$ symbol

Conclusion 3 is false

Therefore none of the three conclusions is true

Ques 6.

Statements:

$F @ T$

$T \% M$

$M \# R$

Conclusion:

$R \$ T$

$F @ M$

$F \$ M$

Solution:

Convert the statement and conclusion from symbols to mathematical operation.

Statement: $F = T \leq M > R$

Conclusion:

I. $R < T$

II. $F = M$

III. $F < M$

To solve Conclusion I

$R < T$, consider statement from R to T

$T \leq M > R$

Since it is the mixer of both $<$ and $>$ symbol

Conclusion 1 is false

To solve Conclusion 2

$F = M$, consider statement from F to M

$F = T \leq M$

From the above statement, It is possible that F can be equal to M

Conclusion II may be True

To solve Conclusion 3

$F < M$, consider statement from F to M

$F = T \leq M$

From the above statement, it is possible that F can be lesser than M

Conclusion III may be True

Therefore Either Conclusion 2 or 3 can be true

Ques 7.

Statements:

J & H,

H @ B,

B % N

Conclusion:

I. N & H

II. N @ J

III. J & B

Solution:

Convert the statement and conclusion from symbols to mathematical operation.

Statement: $J \geq H = B \leq N$

Conclusion:

I. $N \geq H$

II. $N = J$

III. $J \geq B$

To solve Conclusion I

$N \geq H$, consider statement from H to N

$H = B \leq N$

It clearly implies $N \geq H$

Conclusion I is True

To solve Conclusion II

$N=J$, consider statement from N to J

$J \geq H = B \leq N$

Since it is combination of $<$ and $>$ symbol we can't predict $N=J$

Conclusion II is False

To solve Conclusion III

$J \geq B$, consider statement from J to B

$J \geq H = B$

It clearly implies $J \geq B$

Conclusion III is True

Therefore Conclusion I and III are True

