

# CAREER CAMPUS

## Inequality

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### QUE 1-10: SOLVE FOLLOWING

1. **Statements:**  $P < Q \leq S = T, R = Q < U, V > U$

**Conclusions:** I.  $P > U$     II.  $V > T$

1 : if only conclusion I follows.

2 : if only conclusion II follows.

3 : if either conclusion I or conclusion II follows.

4 : if neither conclusion I nor conclusion II follows.

5 : if both conclusions I and II follow.

2. **Statements :**  $U \geq X = Y, Y \leq Z \leq S, T = W > Z$

**Conclusions:** I.  $T \leq U$     II.  $S > U$

1 : if only conclusion I follows.

2 : if only conclusion II follows.

3 : if either conclusion I or conclusion II follows.

4 : if neither conclusion I nor conclusion II follows.

5 : if both conclusions I and II follow.

3. **Statements :**  $A \geq P = S > T, V < B = T \geq X$

**Conclusions:** I.  $A > X$     II.  $P < B$

1 : if only conclusion I follows.

2 : if only conclusion II follows.

3 : if either conclusion I or conclusion II follows.

4 : if neither conclusion I nor conclusion II follows.

5 : if both conclusions I and II follow.

4. **Statements :**  $S > U > V, Y < U < Z, Z < X > W$

**Conclusions:** I.  $S < Z$     II.  $X > Y$

1 : if only conclusion I follows.

2 : if only conclusion II follows.

3 : if either conclusion I or conclusion II follows.

4 : if neither conclusion I nor conclusion II follows.

5 : if both conclusions I and II follow.

5. **Statements :**  $P < X \leq Y < Q, S > Y < T, P = V > R$

**Conclusions:** I.  $V < S$  II.  $T > R$

1 : if only conclusion I follows.

2 : if only conclusion II follows.

3 : if either conclusion I or conclusion II follows.

4 : if neither conclusion I nor conclusion II follows.

5 : if both conclusions I and II follow.

6. **Statements :**  $B \geq C = D \geq E ; A \leq F \leq P = D$

**Conclusions :** I.  $D \geq A$     II.  $B \geq F$

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- 1 : if only conclusion I follows.
- 2 : if only conclusion II follows.
- 3 : if either conclusion I or conclusion II follows.
- 4 : if neither conclusion I nor conclusion II follows.
- 5 : if both conclusions I and II follow

7. **Statements :**  $P = S < T \leq U ; Q \leq U = A \geq B$

**Conclusions :** I.  $Q = B$     II.  $S \leq A$

- 1 : if only conclusion I follows.
- 2 : if only conclusion II follows.
- 3 : if either conclusion I or conclusion II follows.
- 4 : if neither conclusion I nor conclusion II follows.
- 5 : if both conclusions I and II follow.

8. **Statements :**  $A \geq C > B > D ; P < F \geq C > E$

**Conclusions :** I.  $A \geq E$     II.  $F > D$

- 1 : if only conclusion I follows.
- 2 : if only conclusion II follows.
- 3 : if either conclusion I or conclusion II follows.
- 4 : if neither conclusion I nor conclusion II follows.
- 5 : if both conclusions I and II follow.

9. **Statements :**  $M = N \leq O \leq R ; P < O \leq S < T$

**Conclusions :** I.  $N = S$     II.  $N < S$

- 1 : if only conclusion I follows.
- 2 : if only conclusion II follows.
- 3 : if either conclusion I or conclusion II follows.
- 4 : if neither conclusion I nor conclusion II follows.
- 5 : if both conclusions I and II follow.

10. **Statements :**  $J \leq K = M, N \geq P > K, Q > N = R$

**Conclusions :** I.  $R > J$     II.  $Q \geq M$

- 1 : if only conclusion I follows.      2 : if only conclusion II follows
- 3 : if either conclusion I or conclusion II follows.      4 : if neither conclusion I nor conclusion II follows.
- 5 : if both conclusions I and II follow

**QUE 2: Directions :** In These questions, relationship between differ element is shown in the statements. These statements are followed by conclusions. Study the conclusion based on the given statement and select the appropriate answer. Give answer:

1) if only I is true    2) if only II is true    3) if both are true    4) if both are false 5)if either I or II is true

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- 1. Statements**  $G \geq R > O \geq S ; Y < O \leq F$   
Conclusion I.  $G > Y$       II.  $S \leq F$
- 2. Statements**  $W \geq I = P > E \geq S$   
Conclusions I.  $R < P$       II.  $P = R$
- 3. statements**  $R \leq O < A \leq M ; L = D \geq A$   
Conclusion I.  $R < L$       II.  $D > O$
- 4. Statements**  $R \leq C \leq J = T \leq P > Q \geq H$   
Conclusion I.  $R < L$       II.  $R = P$
- 5. Statements**  $R \leq C \leq J = T \leq P > Q \geq H$   
Conclusion I.  $H > T$       II.  $C$

**QUE 3: Direction: Q(1 – 5)**

- P & Q – P is neither smaller than nor equal to Q**
- P@Q – P is neither greater than nor equal to Q**
- P\*Q – P is not smaller than Q**
- P\$Q – P is not greater than Q**
- P%Q – P is neither greater than nor smaller than Q**

- 1. Statements: – A\*B, B\$C, C%D, D&E**  
**Conclusions: – a) A&C b) D&B**
  - 1) Only conclusion 1 follows
  - 2) Only conclusion 2 follows
  - 3) Either 1 or 2 follow
  - 4) Both follow
  - 5) Neither conclusion 1 nor 2 follow
- 2. Statements: – A@B, B\$C, C\*D, D%E**  
**Conclusions: – a) A&D b) C&A**
  - 1) Only conclusion 1 follows
  - 2) Only conclusion 2 follows
  - 3) Either 1 or 2 follow
  - 4) Both follow
  - 5) Neither conclusion 1 nor 2 follow
- 3. Statements: – A%B, B\*C, C@D, D&E**  
**Conclusions: – a) C\*A b) B@E**
  - 1) Only conclusion 1 follows
  - 2) Only conclusion 2 follows

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- 3) Either 1 or 2 follow  
4) Both follow  
5) Neither conclusion 1 nor 2 follow
4. **Statements:** –  $M * N, N \% O, O \% A, A \& B$   
**Conclusions:** –  $M \& B$  b)  $N \% A$   
1) Only conclusion 1 follows  
2) Only conclusion 2 follows  
3) Either 1 or 2 follow  
4) Both follow  
5) Neither conclusion 1 nor 2 follow
5. **Statements:** –  $A @ B, B \% C, C * D, D \% E$   
**Conclusions:** – a)  $A \& E$  b)  $B * D$   
1) Only conclusion 1 follows  
2) Only conclusion 2 follows  
3) Either 1 or 2 follow  
4) Both follow  
5) Neither conclusion 1 nor 2 follow

**QUE 4: Direction: Q(6 – 10)**

6. What should come in place of question mark in the expression  $P > Q ? R < T < S$  so as to make the expressions  $P > R$  and  $S > Q$  always true?  
a) = b) > c) < d)  $\geq$  e) None of these
7. What should come in place of question mark in the expression  $A = B > C ? D < E = F$  so as to make the expression  $F > C$  always true?  
a) > b) = c)  $\geq$  d)  $\leq$  e) both b and d
8. **Statements:**  $P = S, P < Q, R \leq Q, R \leq T$   
**Conclusions :** a)  $Q > S$  b)  $Q = T$   
a) Only one follow b) Only two follow c) Neither follows  
d) Both follow e) Either follow
9. **Statements:** –  $A > N, K \geq N, K > M, R > M$   
**Conclusions:** – a)  $M = N$  b)  $R \geq A$   
a) Only one follow b) Only two follow c) Neither follows  
d) Both follow e) Either follow
10. What should come in place of question mark to make  $B > D$  always true?  
 $A = B > C ? D < E$   
a) > b) < c)  $\geq$  d)  $\leq$  e) both a and c

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5. Directions(Q.1-10) In these questions a relationship between different elements is shown in the statements. The statements are followed by two conclusions. 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 conclusion I and II is true.

1. Statements:  $C > S \geq R < U, N > R = P$

Conclusions: I.  $C > P$  II.  $S > P$

2. Statements:  $Q = W > X \leq B, L > W$

Conclusions: I.  $L > B$  II.  $Q < L$

3. Statements:  $H < S = T \geq Y, V > S$

Conclusions: I.  $V > Y$  II.  $H > V$

(4-5) Statements:  $J \leq K < L = N, J \geq C = Q < B$

4. Conclusions: I.  $B \geq K$  II.  $Q \leq L$

5. Conclusions: I.  $N > C$  II.  $K \geq Q$

6. Statements:  $B \geq N = S > L, P \geq N$

Conclusions: I.  $B \geq L$  II.  $P > L$

7. Statements:  $Q > M \geq K < R, H \leq Q$

Conclusions: I.  $H > K$  II.  $Q > R$

8. Statements:  $L \geq M = N, C < I \leq N$

Conclusions: I.  $M > I$  II.  $L > C$

9. Statements:  $S = T \leq Q, P > J \geq S$

Conclusions: I.  $P > T$  II.  $J \geq Q$

10. Statements:  $W < X = S > Y = Z$

Conclusions: I.  $X > Z$  II.  $Z < S$

QUE 6: (11-15) In the given Questions, assuming the given statements to be true. Find which of the given four conclusions Numbered I, II, III, IV is /are definitely True and give your ans accordingly.

11. Statements:  $S > M \geq D > H \leq R \leq T < W$

Conclusions: I.  $S > H$  II.  $W > H$  III.  $R < W$  IV.  $M > T$

- A)Only I, II and III are true
- B)Only II is true.
- C)Only I and II are true.
- D)Only I and either II or IV are true.
- E)All I, II, III and IV are true.

12. Statements:  $M > U > L \leq N; L \geq Y > A$

Conclusions: I.  $Y < N$  II.  $M >$  III.  $N = Y$  IV.  $M > A$

- A)Only either II or III is true.
- B)Only IV and either I or III are true
- C)Only IV is true.
- D)Only II is true.
- E)Only III is true.

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13. Statements:  $J \geq A > D = E$ ;  $L < A < M$

Conclusions: I.  $M < J$  II.  $J > L$  III.  $D > L$  IV.  $E < M$

- A) Only II is true.      B) Only I and III are true.      C) None is true.  
D) Only II and IV are true      . E) Only I and II are true.

14. Statements:  $Y > F \leq O \leq P$ ;  $F \geq U < T$

Conclusions: I.  $Y > P$  II.  $T < F$  III.  $O > T$  IV.  $P < U$

- A) Only I is true.      B) Only II is true.      C) Only III is true.  
D) None is true      . E) Only I and IV are true.

15. Statements:  $M > H \leq Y \leq R < U = Z \geq E$

Conclusions: I.  $M > R$  II.  $Z \leq R$  III.  $R > E$  IV.  $Z > H$

- A) Only I and II are true.      B) Only IV is true.      C) None is true  
D) Only II and IV are true      . E) Only II and III are true.

Que7: In these questions a relationship between different elements is shown in the statements. The statements are followed by two conclusions. 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 conclusion I and II is true.

1. Statements  $L = P \leq W < V \leq K \geq Q$ ;  $B < L$ ;  $K = M$

Conclusion I.  $B < V$  II.  $M > P$

2. Statements  $L = P \leq W < V \leq K \geq Q$ ;  $B < L$ ;  $K = M$

Conclusion I.  $L \geq Q$  II.  $W = M$

3. Statements  $R \leq U = b < S$ ;  $B \leq X$

Conclusion I.  $X > R$  II.  $X = R$

4. Statements  $C > U \leq S < T = O > D \geq Y$ ;  $Z = O \leq P$

Conclusion I.  $U > D$  II.  $S < P$

5. Statements  $C > U \leq S < T = O > D \geq Y$ ;  $Z = O \leq P$

Conclusion I.  $Z > Y$  II.  $C < O$

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OUE 8: Direction: Q(1 – 5)

$P@Q$  – P is either greater than or equal to Q

$P+Q$  – P is either greater than or smaller than Q

$P\%Q$  – P is greater than Q

$PXQ$  – P is not smaller than Q

$P\$Q$  – P is neither smaller than nor equal to Q

Now in each of the following questions assuming the given statement to be true, find which of the two conditions 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 or II is true

e) If both I and II is true

1) Statements :  $M @R$  ,  $R\%T$  ,  $T\$K$

Conclusion : I)  $KXM$ , II)  $TXM$

2) Statements :  $H\%J$ ,  $B+J$ ,  $B@F$

Conclusion: I)  $F\$J$ , II)  $J\%F$

3) Statements :  $D\$M$ ,  $M\%W$ ,  $W@R$

Conclusion : I)  $RXD$ , II)  $W+D$

4) Statements :  $A+N$  ,  $NXV$ ,  $V\$J$

Conclusion: I)  $J@N$ , II)  $A+V$

5) Statements :  $KXT$  ,  $T@B$  ,  $B+M$

Conclusion : I)  $M\%T$  II)  $K+B$

6) Statements :  $B@H$ ,  $HXM$  ,  $M\$N$

Conclusion : I)  $B@N$ , II)  $N\%H$

9.Directions-  $P @ Q$  means P is not smaller than Q

$P \% Q$  means P is not greater than 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

$P \$ Q$  means P is neither greater than nor equal to Q

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Now in each of the following questions assuming the given statement to be true, find which of the two conditions 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 or II is true

e) If both I and II is true

7) Statements  $F \% T, T @ J, J \# W$ .

Conclusions 1)  $J @ F$ . 2)  $J \# F$ .

8) Statements –  $R \# D, D @ K, K \$ M$ .

Conclusions – 1)  $M \# R$ . 2)  $K \$ R$ .

9) Statements –  $Z @ F, F \$ M, M \% K$

Conclusions – 1)  $K \# F$ . 2)  $Z \# M$ .

10) Statement –  $H @ B, B @ R, A \$ R$

Conclusion – 1)  $B @ A$  2)  $R \% H$ .

**Directions (Q.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 greater than nor equal to Q'.

' $P \% Q$ ' means 'P is neither greater than nor smaller than Q'.

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



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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 given below them is/are definitely true and give your answer accordingly.

1). **Statements:**  $N \% B$ ,  $B \$ W$ ,  $W \# H$ ,  $H * M$

**Conclusions:**

I.  $M @ W$       II.  $H @ N$       III.  $W \% N$       IV.  $W \# N$

- a) Only I is true
- b) Only III is true
- c) Only IV is true
- d) Either III or IV is true
- e) Either III or IV and I are true

2). **Statements:**  $R * D$ ,  $D \$ J$ ,  $J \# M$ ,  $M @ K$

**Conclusions:**

I.  $K \# J$       II.  $D @ M$       III.  $R \# M$       IV.  $D @ K$

- a) None is true
- b) Only I is true
- c) Only II is true
- d) Only III is true
- e) Only IV is true

3). **Statements:**  $H @ T$ ,  $T \# F$ ,  $F \% E$ ,  $E * V$

**Conclusions:**

I.  $V \$ F$       II.  $E @ T$       III.  $H @ V$       IV.  $T \# V$

- a) I, II and III are true
- b) I, II and IV are true

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- c) II, III and IV are true
- d) I, III and IV are true
- e) All of these

4). Statements:  $D \# R$ ,  $R * K$ ,  $K @ F$ ,  $F \$ J$

Conclusions:

I.  $J \# R$     II.  $J \# K$     III.  $R \# F$     IV.  $K @ D$

- a) I, II and III are true
- b) II, III and IV are true
- c) I, III and IV are true
- d) All of these
- e) None of these

5). Statements:  $M \$ K$ ,  $K @ N$ ,  $N * R$ ,  $R \# W$

Conclusions:

I.  $W @ K$     II.  $M \$ R$     III.  $K @ W$     IV.  $M @ N$

- a) I and II are true
- b) I, II and III are true
- c) III and IV are true
- d) II, III and IV are true
- e) None of these