

# Inequalities Questions for SBI PO Pre, IBPS PO Pre, SBI Clerk Mains and IBPS Clerk Mains Exams.

# **Inequalities Quiz 15**

Directions: In these questions, relationship between different elements is shown in the statement. The statements are followed by two or three conclusions. Choose the correct Answer given below:

<b>1.</b> Statements: $R > I = N > P$ $Y \ge R > K$ Conclusions: $K > I$ , $I < Z$	$N \leq E < Z$			
<ul> <li>A. Only conclusion II follows.</li> <li>B. Only conclusion I follows.</li> <li>C. Both conclusion I and II follow.</li> <li>E. Either conclusion I or conclusion II follows.</li> <li>B. Only conclusion I follows.</li> <li>D. Neither conclusion I nor conclusion II follows.</li> </ul>				
2. Statements: $T > K > Y$ , $J \le K = G$ , Conclusions: $N > K$ , $C \le T$ , $M < J$	$I > C \ge G$ , $M \le I < N$			
A. Both conclusions II and III follow       B. Either conclusion I or III follows         C. Only conclusion I follows       D. All the conclusions follow         E. None of the conclusions follows       D. All the conclusions follows				
3. Statements: $B \ge P = M$ , $X > B < T$ , Conclusions: $P > H$ , $P = H$ , $R > X$	$Y = H \le X , R > Y > N$			
<ul> <li>A. Both conclusions I and III follow</li> <li>C. Only conclusion III follows</li> <li>E. None of the conclusions follows</li> <li>B. Either conclusion I or III follows</li> <li>D. All conclusions follow</li> </ul>				
<ul> <li>4. Statements: F &lt; G &lt; D , D &lt; H &gt; C</li> <li>Conclusions: G &lt; C , H = A</li> </ul>	, F = C < A			
A. Both conclusions I and II followB. EithC. Only conclusion I followsD. OnE. Neither conclusion I nor II follows	er conclusion I or II follows y conclusion II follows			
5. Statements: $C < H = J$ , $X \le Y < J$ , Conclusions: $Y > Z$ , $Y = Z$	$N > X \ge Z$			
<ul><li>A. Both conclusions I and II follow</li><li>B. Eith</li><li>C. Only conclusion I follows</li><li>D. On</li><li>E. Neither conclusion I nor II follows</li></ul>	er conclusion I or II follows y conclusion II follows			

6. Statements: $W \ge Q > U$ , $T = L \ge Q$ , $V \le A < L$ Conclusions: $T > U$ , $W > T$												
A. Both conclusions I and II follow C. Only conclusion I follows E. Only conclusion II follows				B. D.	B. Either conclusion I or II follows D. Only conclusion II follows							
7. Sta	7. Statements: $F > K \ge H$ , $G = L \ge K$ , $V \le B < L$ Conclusions: $H > V$ , $B < F$											
A. Both co C. Only co E. Neither	<ul> <li>A. Both conclusions I and II follow</li> <li>C. Only conclusion I follows</li> <li>E. Neither conclusion I nor II follows</li> </ul>				B. Either conclusion I or II follows D. Only conclusion II follows							
8. Statements: $H > K = O > R$ $K \ge M > L$ $O \le F < Y$ Conclusions: $F > R$ , $M < H$												
A. Only co C. Both co E. Either c	<ul> <li>A. Only conclusion II follows.</li> <li>C. Both conclusion I and II follow.</li> <li>E. Either conclusion I or conclusion II follows.</li> </ul>											
9. Statements: $A > B = S$ , $E \ge B > J$ , $H < S \le E$ , $A > S \ge T$ Conclusions: $E > T$ , $E = T$ , $A > J$												
<ul> <li>A. None of the conclusions follow</li> <li>B. Only conclusion I and either conclusion II or II follow</li> <li>C. Either conclusion I or II follows</li> <li>D. Only conclusion III and either conclusion I or II follow</li> <li>E. All the conclusions follow</li> </ul>												
<b>10.</b> Statements: $T = K > L$ , $D > K > U$ , $C = Z < T$ , $F \ge V > U$ Conclusions: $U < T$ , $F = K$ , $C < L$												
<ul> <li>A. Only conclusion I follows</li> <li>C. Only conclusions II and III follow</li> <li>E. All the conclusions follow</li> <li>B. Either conclusion I or II follows</li> <li>D. None of the conclusions follows</li> </ul>												
Correct Answers:												
	1	2	3	4	5	6	7	8	9	10	-	
	A	С	E	E	В	C	E	С	D	A	J	

# **Explanations:**

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1. Statements: R > I = N > P Y \ge R > K N \le E < Z
Conclusions: K > I, I < Z
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For conclusion I: K > I

From the statements I and II, we get: I < R > K

Here, the signs on inequalities between I and R are getting reversed. Conclusion I hence doesn't follow.

For conclusion II: I < Z Combining statements I and III, we get:

 $I = N \le E < Z$ 

Here, the common sign between I and Z is '<' and the given conclusion is also I < Z. Hence, conclusion II follows.

Hence, the correct answer is would be 'Only conclusion II follows'.

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2.
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Statements: T > K > Y, J \le K = G, I > C \ge G, M \le I < N
Conclusions: N > K, C \le T, M < J
For Conclusion I: N > K
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From statements II, III and IV, we get:  $N > I > C \ge G = K$ Here, the common sign between N and K is '>'. Thus N > K. Hence conclusion I follows.

# For Conclusion II: $C \leq T$

From statements I, II and III, we get:

 $C \ge G = K < T$ 

Here, we can see the opposite sign between C and T, thus no relationship can be established between them.

Hence conclusion II does not follow.

# For Conclusion III: M < J

From statements II, III and IV, we get:  $M \le I > C \ge G = K \ge J$ Here, we can see the opposite sign between M and J, thus no relationship can be established between them. Hence conclusion III does not follow. Therefore only conclusion I follows. Hence option C is correct.

# **3.** Statements: B > P = M, X > B < T, Y = H < X, R > Y > N

**Conclusions:** P > H, P = H, R > X

# For Conclusion I: P > H

From statements I, II and III, we get:  $H \le X > B \ge P$ Here, we can see the opposite sign between P and H, thus no relationship can be established between them.

Hence conclusion I does not follow.

# For Conclusion II: P = HFrom statements I, II and III, we get: $H \le X > B \ge P$ Here, we can see the opposite sign between P and H, thus no relationship can be established between them.

Hence conclusion II does not follow.

# For Conclusion III: R > X

From statements II and III, we get:

 $\mathsf{R} > \mathsf{Y} = \mathsf{H} \leq \mathsf{X}$ 

Here, we can see the opposite sign between R and X, thus no relationship can be established between them.

Hence conclusion III does not follow.

Therefore none of the conclusions follows.

Hence option E is correct.

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4. Statements: F < G < D , D < H > C , F = C < A
Conclusions: G < C , H = A</p>
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# For conclusion I: G < C

From statements I and III, we get: C = F < G Here, the common sign between C and G is '<'. Hence C < G. Thus conclusion I does not follow.

#### For conclusion I: H = A

From statements II and III, we get:

H > C < A

Here, we get opposite signs between H and A. Thus no relationship can be established between them. Hence conclusion II does not follow.

Therefore neither conclusion I nor II follows. Hence option E is correct.

5.	Statements: $C < H = J$ , $X \le Y < J$ , $N > X \ge Z$ Conclusions: $Y > Z$ , $Y = Z$
	For conclusion I: Y > Z
	From statements I and III, we get: $Y \ge X \ge Z$ Here, the common sign between Y and Z is ' $\ge$ '. Hence Y $\ge$ Z Thus conclusion I does not follow individually.
	For conclusion II: Y = Z
	<ul> <li>From statements I and III, we get:</li> <li>Y ≥ X ≥ Z</li> <li>Here, the common sign between Y and Z is '≥'. Hence Y ≥ Z. Thus conclusion II also does not follow individually.</li> <li>On combining conclusions I and II, we get: Y ≥ Z, which is the true relationship.</li> </ul>
	Thus either conclusion I or II follows.
1.	Hence option B is correct.
6.	Statements: $W \ge Q > U$ , $T = L \ge Q$ , $V \le A < L$
	For conclusion I: T > U
	From statements I and II, we get: $T = L \ge Q > U$ Here, the common sign between T and U is '>'. Thus T > U. Hence conclusion I follows.
	For conclusion II: W > T
	From statements I and II, we get: $W \ge Q \le L = T$ Here, we can see the opposite sign between W and T, thus no relationship can be established between them. Hence conclusion II does not follow. Thus only conclusion I follows. Hence option C is correct.

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7.
       Statements: F > K \ge H, G = L \ge K, V \le B < L
       Conclusions: H > V, B < F
       For conclusion I: H > V
       From statements I, II and III, we get:
       V \le B < L \ge K \ge H
       Here, we can see the opposite sign between H and V, thus no relationship can be established between
       them.
       Hence conclusion I does not follow.
       For conclusion II: B < F
       From statements I, II and III, we get:
       B < L \ge K < F
       Here, we can see the opposite sign between B and F, thus no relationship can be established between
       them.
       Hence conclusion II does not follow.
       Thus neither conclusion I nor conclusion II follows.
       Hence option E is correct.
                                                   8.
       Statements: H > K = O > R K \ge M > L O \le F < Y
       Conclusions: F > R, M < H
       For conclusion I: F > R
       Combining statements I and III, we get:
       F \ge O > R
       Here, the common sign between F and R is '>' and the given conclusion is F > R. Hence, conclusion I
       follows.
       For conclusion II: M < H
       Combining statements I and II, we get:
       H > K \ge M
       Here, the common sign between H and M is '>' and the given conclusion is M < H. Conclusion II follows.
       Hence, the correct answer is would be 'Both the statements I and II follow'.
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# **9.** Statements: A > B = S, $E \ge B > J$ , $H < S \le E$ , $A > S \ge T$

#### **Conclusions:** E > T, E = T, A > J

#### For conclusion I: E > T

From statements III and IV, we get:  $T \le S \le E$ Here, common sign between T and E is '\le '. Thus  $T \le E$  or  $E \ge T$ . Also, From statements I, III and IV, we get:  $E \ge B = S \ge T$ 

Here, common sign between E and T is ' $\geq$ '. Thus T  $\leq$  E or E  $\geq$  T.

Hence conclusion I does not follow individually.

#### For conclusion II: E = T

From statements III and IV, we get:  $T \le S \le E$ Here, common sign between T and E is ' $\le$ '. Thus T  $\le$  E or E  $\ge$  T. Also, From statements I, III and IV, we get:  $E \ge B = S \ge T$ Here, common sign between E and T is ' $\ge$ '. Thus T  $\le$  E or E  $\ge$  T.

Hence conclusion II does not follow individually.

#### For conclusion III: A > J

From statements I and II, we get: A > B > J Here, the common sign between A and J is '>'. Thus A > J. Hence conclusion III follows.

#### Combining conclusions I and II:

As the final conclusion is  $E \ge T$ , so if we combine both the conclusions I and II i.e. E > T and E = T, we get  $E \ge T$ .

Thus either conclusion I or conclusion II follows. Therefore, either conclusion I or II and conclusion III follow.

Hence option D is correct..

# **10.** Statements: T = K > L, D > K > U, C = Z < T, $F \ge V > U$

**Conclusions:** U < T, F = K, C < L

### For conclusion I: U < T

From statements I and II, we get: T = K > U Here, the common sign between T and U is '>'. Thus T > U or U < T.

Hence conclusion I follows.

#### For conclusion II: F = K

From statements II and IV, we get:

 $K > U < V \le F$ 

Here, we can see the opposite signs between K and F. Thus no relation can be established between them.

Hence conclusion II does not follow.

For conclusion III: C < L</p>
From statements I, II and III, we get:
Z = C < T = K > L
Here, we can see the opposite signs between C and D. Thus no relation can be established between them.
Hence conclusion III does not follow.
Therefore only conclusion I follows.

Hence option A is correct.

