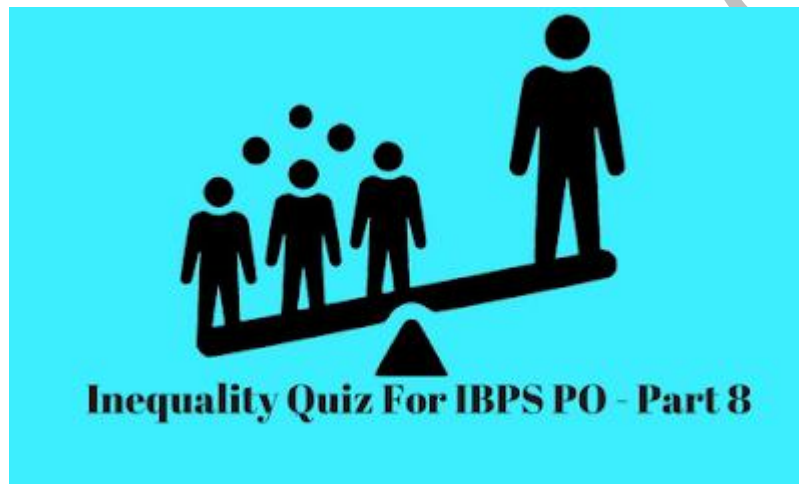


## B 25- Inequality



**Direction(Q1-5):** In the following questions, the symbols %, #, @, & and \$ are used with the following meaning as illustrated below:

- '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 greater than nor smaller than Q'.
- 'P < Q' means 'P is neither smaller than nor equal to Q'.
- 'P > Q' means 'P is not smaller than Q'.

**Question. 1:**

In Which of the following expressions does the expression 'J \$ K' to be definitely hold true?

- A. J & P < L > K % M
- B. J \$ P > L & M % K
- C. J % P & L \$ K % M

- D.  $J > P \& L \% M \$ K$   
 E. None of these

**Ans. C.**

**Solution:**

$$J < K$$

$$J = P > L \geq K \leq M$$

$$J < P \geq L = M \leq K$$

$$J \leq P = L < K \leq M$$

$$J \geq P = L \leq M < K$$

**Question.2:**

In Which of the following expressions does the expression 'A % B' to be definitely hold true?

- A.  $C \$ A \$ D \& B < E$   
 B.  $A < D \$ B \% C > E$   
 C.  $D \& B \% C \& A < E$   
 D.  $E \$ A \% C \& D \% B$   
 E. None of these

**Ans. D.**

**Solution:**

$$A \leq B$$

$$C < A < D = B > E$$

$$A > D < B \leq C \geq E$$

$$D = B \leq C = A > E$$

$$E < A \leq C = D \leq B$$

**Question.3**

Which of the following symbols should replace the question mark (?) respectively in order to complete the given expression in such a manner that both  $P \% S$ , as well as  $Q \$ M$ , definitely holds true?

$$P \% Q \& R ? S \$ T, M ? R > U \$ V$$

- A. \$, &  
 B. \$, \$  
 C. %, >

- D. %, <  
E. None of these

**Ans. D.**

**Solution:**

$$P \leq S, Q < M$$

$$P \leq Q = R < S < T, M = R \geq U < V$$

$$P \leq Q = R < S < T, M < R \geq U < V$$

$$P \leq Q = R \leq S < T, M \geq R \geq U < V$$

$$P \leq Q = R \leq S < T, M > R \geq U < V$$

### Question.4

Which of the following expressions is false if the expression  $1\%3 < 4 \& 5\%6 \& 8 < 2\&7$  is definitely true?

- A.  $4\&8$   
B.  $4\%6$   
C.  $3 < 5$   
D.  $6\&3$   
E. None of these

**Ans. D.**

**Solution:**

$$1 \leq 3 > 4 = 5 \leq 6 < 8 > 2 < 7$$

$$4 < 8$$

$$4 \leq 6$$

$$3 > 5$$

$$6 < 3$$

### Question.5

$$L < K \& M \% N \& K \& O \& J$$

Conclusions:  $L \& N, O \% M$

- A. Only I is true  
B. Only II is true  
C. Either I or II is true  
D. Both I and II are true  
E. Neither I nor II is true.

**Ans. E.**

**Solution:**

$L > K < M \leq N = K = O < J$

$L < N, O \leq M$



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