**INEQUALITIES**

**Basic Model**

These statements are followed by two conclusions:

(a) If only conclusion I follows.

(b) If only conclusion II follows.

(c) If either conclusion I or II follows.

(d) If neither conclusion I nor II follows.

(e) If both conclusion I and II follow.

1. **Statement: M ≤ N > O ≥ P = Q**

**Conclusions: I. M ≥ Q II. Q < M**

1. **Statement: U ≤ V < W =X < Y**

**Conclusions: I. Y > V II. W > U**

1. **Statements : C > A ≥ T , S < E = T**

**Conclusions : A > E , C > S**

1. **Statements : F < U ≤ N , D > H < U = B**

**Conclusions : H < N , H = N**

1. **Statement : G ≤ L ≥ O ≥ W ≥ I < N**

**Conclusions : I. I < L II. L = I**

1. **Statement : G ≤ L ≥ O ≥ W ≥ I < N**

**Conclusions : I. O > G II. W < N**

1. **Statement : R > M ≥ T ≤ Q = S**

**Conclusions : I. R > Q, II. Q ≥ M**

1. **Statements : P ≤ Q ≤ R = S, U ≥ V ≥ S**

**Conclusions : P < U, P = U**

1. **Statement : P = R, R < F, F < T**

**Conclusions : T < R, F < P**

1. **Statements : P ≥ Q , R < S , Q = S , T > P**

**Conclusions : R < T , T > S**

1. **Statements: D ≥ S , X < W, S = J, W > Y, X > D, Y ≤ O, J ≥ E**

**Conclusions: (i) D > E (ii) D = E (iii) O > S**

1. **Statements: S < V, P = M, T > V, M < I, R = I, P < T**

**Conclusions: (i) I > P (ii) S > M (iii) I < T**

**True / False**

1. Which of the following expressions will be true if the expression ‘K ≥ L > M ≥ N’ is definitely true?

(a) N ≤ K b) K = M (c) K < N (d) L ≥ N (e) None is true

1. Which of the following expressions will be true if the expression ‘M ≥ K < T = Q’ is definitely true?

(a) Q < K (b) M ≥ T (c) K < Q(d) T = M (e) None is true

**Using symbols**

In the following questions, the symbols $, @, %, & and # are used with the following meanings as illustrated below:

**‘A $ B’ means A is neither greater nor smaller than B**

**‘A @ B’ means A is neither greater than nor equal to B**

**`A % B’ means A is neither smaller than nor equal to B**

**‘A& B’ means A is not smaller than B**

**‘A # B’ means A is not greater than B**

In each of the following questions, assuming the given statements to be true, find out 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.**

1. **Statements: V&D, D %T, K $ T, K # F**

**Conclusions: I. V% F II. V% K**

1. **Statements: S $ Q, Q @ B, B &K, K # W**

**Conclusions: I. W%K II. S @ B**

**A@B means A is not greater than B.**

**A!B means A is greater than B.**

**A\*B means A is not less than B.**

**A%B means A is less than B.**

**A#B means A is neither greater nor less than B.**

1. **Statements : M!H , K%M, G#H**

**Conclusions : H#K , M\*G**

1. Statements : E@F , D%E , T\*F

Conclusions : D%F , T\*E

1. **Statements: T#Y , Y%L, G\*L**

**Conclusions: L!T , G\*T**

1. **Statements : G!U , L@U, M\*G**

**Conclusions : M#U , M!U**

1. **Statements : Z!U , P\*W , W@U**

**Conclusions : Z!W , P%U**