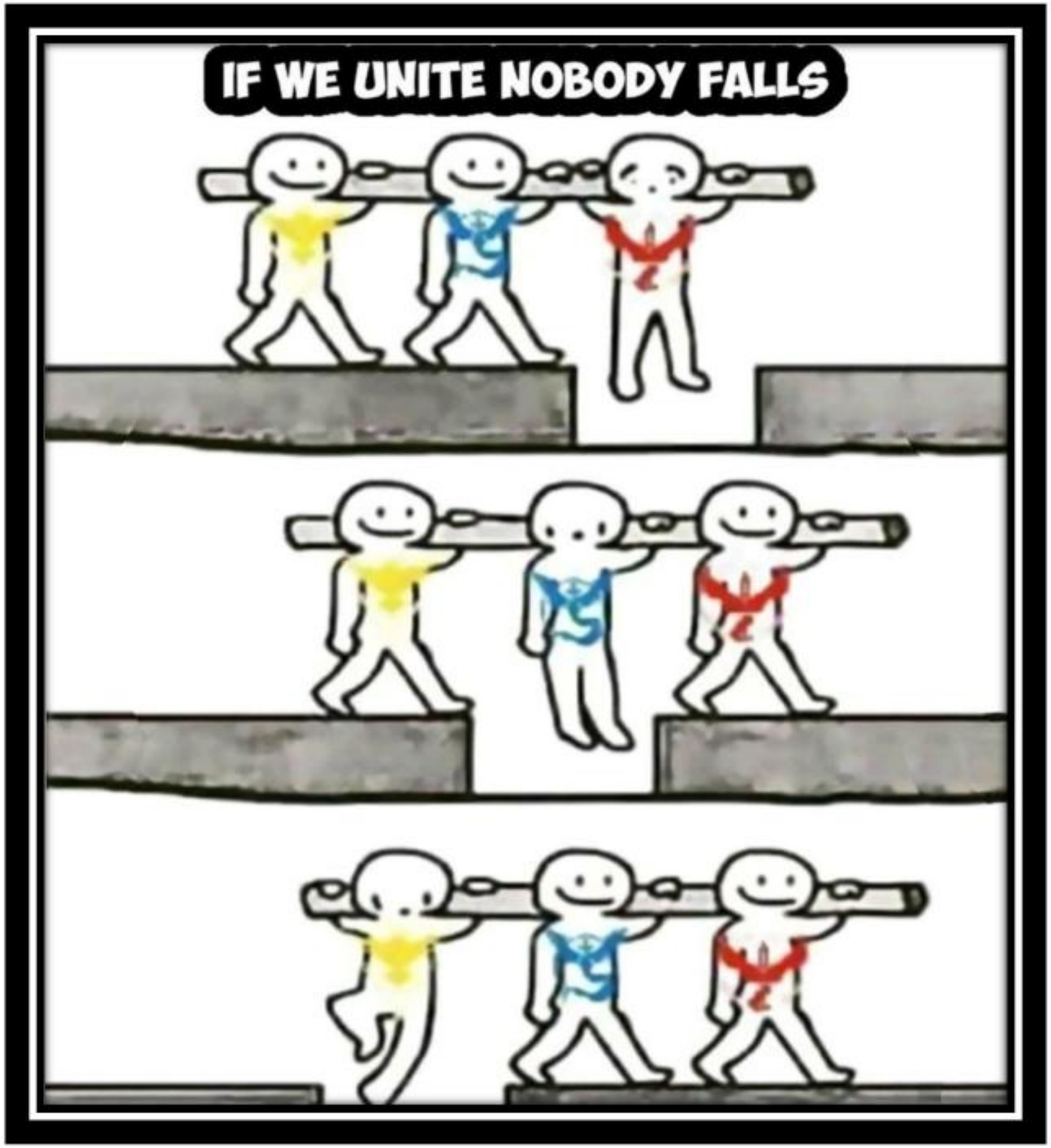
The Most Comprehensive Preparation App For All Exams

BYJU'S EXAM PREP

Inequalities

Part - 2

Moderate → Difficult


IF WE UNITE NOBODY FALLS

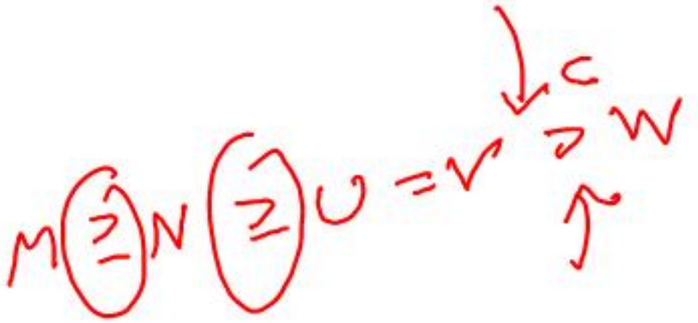
Directions: (1–5) In the following question assuming the given statements to be true, find which of the conclusion among given conclusions is/are definitely true and then give your answers accordingly.

1. **Statements:**

$M \geq N ; N \geq U = V ; W < V$

Conclusions:

1) $M > W$
2) $W = M$
3) $M > U$
4) $U < W$
5) $M = U$



A. Only conclusion 1 or either conclusion 3 or 5 follows.

B. Only conclusion 2 follows.

C. Either conclusion 1 or 3 follows.

D. Neither conclusion 1 nor 4 follows.

E. Both conclusions 1 and 5 follow.

1. **Statements:**

$M \geq N$; $N \geq U = V$; $W < V$

Conclusions:

1) $M > W$

2) $W = M$

3) $M > U$

4) $U < W$

5) $M = U$

A. Only conclusion 1 or either conclusion 3 or 5 follows.

B. Only conclusion 2 follows.

C. Either conclusion 1 or 3 follows.

D. Neither conclusion 1 nor 4 follows.

E. Both conclusions 1 and 5 follow.

Ans. A

2. **Statement:**

G ≤ H ; I > H ; I = J > K ; G < L

Conclusions:

1) L > J CS
2) G < K CS
3) G < I DT
4) I < K DF
5) L = K CS

A. Only conclusion 1 follows.
B. Only conclusion 2 follows.
C. Either conclusion 4 or 5 follows.
D. Only 3 follows.
E. Both conclusion 1 and 5 follow.

2. **Statement:**

$G \leq H$; $I > H$; $I = J > K$; $G < L$

Conclusions:

1) $L > J$

2) $G < K$

3) $G < I$

4) $I < K$

5) $L = K$

A. Only conclusion 1 follows.

B. Only conclusion 2 follows.

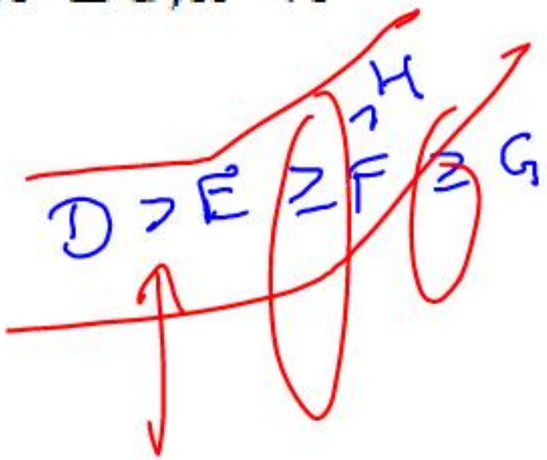
C. Either conclusion 4 or 5 follows.

D. Only 3 follows.

E. Both conclusion 1 and 5 follow.

Ans. D

3. **Statement:** $D > E \geq F; F \geq G; H < F$



Conclusions:

1) H > G CS
2) H < D DT
3) E > G
4) E = G
5) D > G DT

A. Only conclusion 1 follows.

B. Only conclusion 2 and 5 and either 3 or 4 follow.

C. Either conclusion 1 or 2 follows.

D. Neither conclusion 1 nor 2 follows.

E. Both conclusion 5 and 2 follow.

3. **Statement:** $D > E \geq F; F \geq G; H < F$

Conclusions:

1) H > G
2) H < D
3) E > G
4) E = G
5) D > G

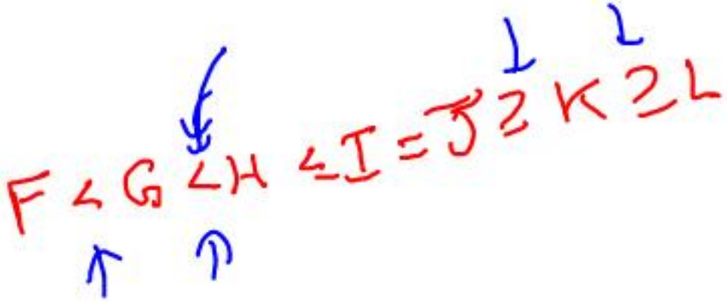
A. Only conclusion 1 follows.
B. Only conclusion 2 and 5 and either 3 or 4 follow.
C. Either conclusion 1 or 2 follows.
D. Neither conclusion 1 nor 2 follows.
E. Both conclusion 5 and 2 follow.

Ans. B

4. **Statements:** $F < G < H ; H \leq I = J ; J \geq K \geq L$

Conclusions:

1) J > G DT
2) I ≥ L DT
3) F > I DF
4) I > G DT
5) F > L CS



A. Only conclusion 1 follows.
B. Only conclusion 3 follows.
C. Either conclusion 5 or 2 follows.
D. Neither conclusion 1 nor 5 follows.
E. Conclusions 1, 2 and 4 follow.

4. **Statements:** $F < G < H; H \leq I = J; J \geq K \geq L$

Conclusions:

1) J > G
2) I ≥ L
3) F > I
4) I > G
5) F > L

A. Only conclusion 1 follows.
B. Only conclusion 3 follows.
C. Either conclusion 5 or 2 follows.
D. Neither conclusion 1 nor 5 follows.
E. Conclusions 1, 2 and 4 follow.

Ans. E

5. **Statements:** $R > S = T; T \geq U > V; V \geq W \leq X; Y > X$

Conclusions:

1) R > X CS
2) R ≤ X CS
3) R > V DT
4) Y > V CS
5) T > Y CS

R > S = T ≥ U > V ≥ W ≤ X < Y

A. Only conclusion 1 follows.
B. Only conclusion 5 follows.
C. Either conclusion 1 or 2 and conclusion 3 follow.
D. Neither conclusion 3 nor 5 follows.
E. Both conclusion 4 and 2 follow.

5. **Statements:** $R > S = T; T \geq U > V; V \geq W \leq X; Y > X$

Conclusions:

1) R > X
2) R ≤ X
3) R > V
4) Y > V
5) T > Y

A. Only conclusion 1 follows.
B. Only conclusion 5 follows.
C. Either conclusion 1 or 2 and conclusion 3 follow.
D. Neither conclusion 3 nor 5 follows.
E. Both conclusion 4 and 2 follow.

Ans. C

Direction: Study the following information carefully and answer the given questions.

6. What will come in place of question mark (?) to make the expressions A > G, G ≤ J and K > C definitely true?

A > D = F ? G ≤ H ? J ≥ K = L ? V > C

A. =, <, >

B. ≥, =, ≥

C. =, <, ≥

D. >, ≥, >

E. None of these

Direction: Study the following information carefully and answer the given questions.

6. What will come in place of question mark (?) to make the expressions A > G, G ≤ J and K > C definitely true?

A > D = F ? G ≤ H ? J ≥ K = L ? V > C

A. =, <, >
B. ≥, =, ≥
C. =, <, ≥
D. >, ≥, >
E. None of these
Ans. B

Direction: Study the following information carefully and answer the given questions.

7. What will come in place of question mark (?) to make the expressions B ≥ D and E ≤ H definitely true?

A = B ≥ C ? D < E ≤ F ? G ≤ H

A. =, <

B. <, =

C. =, ≥

D. ≥, =

E. None of these

Direction: Study the following information carefully and answer the given questions.

7. What will come in place of question mark (?) to make the expressions B ≥ D and E ≤ H definitely true?

A = B ≥ C ? D < E ≤ F ? G ≤ H

A. =, <
B. <, =
C. =, ≥
D. ≥, =
E. None of these
Ans. D

Direction: Study the following information carefully and answer the given questions.

8. What will come in place of question mark (?) to make the expressions P > R, S ≤ U and V > X definitely true?

P ≥ Q ? R = S ≤ T ? U > V ? W ≥ X

A. =, >, >

B. >, =, >

C. =, ≥, >

D. >, ≥, =

E. None of these

Direction: Study the following information carefully and answer the given questions.

8. What will come in place of question mark (?) to make the expressions $P > R$, $S \leq U$ and $V > X$ definitely true?

$P \geq Q \ ? \ R = S \leq T \ ? \ U > V \ ? \ W \geq X$

A. =, >, >
B. >, =, >
C. =, ≥, >
D. >, ≥, =
E. None of these
Ans. B

Direction: Study the following information carefully and answer the given questions.

9. What will come in place of question mark (?) to make the expressions A > C, D ≤ F and H > J definitely true?

A = B ? C ≥ D ? E ≤ F = H ? I > J

A. >, =, ≥

B. <, =, >

C. –, ≥, >

D. >, ≥, ≥

E. None of these

Direction: Study the following information carefully and answer the given questions.

9. What will come in place of question mark (?) to make the expressions A > C, D ≤ F and H > J definitely true?

A = B ? C ≥ D ? E ≤ F = H ? I > J

A. >, =, ≥

B. <, =, >

C. =, ≥, >

D. >, ≥, ≥

E. None of these

Ans. A

Direction: Study the following information carefully and answer the given questions.

10. What will come in place of question mark (?) to make the expressions J = L, M < O and P < R definitely true?

J ? K = L ≥ M ? N ≤ O = P ? Q < R = S

A. =, >, =

B. <, =, <

C. =, =, >

D. =, <, =

E. None of these

Direction: Study the following information carefully and answer the given questions.

10. What will come in place of question mark (?) to make the expressions J = L, M < O and P < R definitely true?

J ? K = L ≥ M ? N ≤ O = P ? Q < R = S

A. =, >, =
B. <, =, <
C. =, ≥, <
D. =, <, =
E. None of these
Ans. D

Direction: (11–15) Study the following information to answer the given questions.

- N © M means N is greater than M. $N > M$
- N % M means N is smaller than M. $N < M$
- N @ M means N is either greater than or equal to M. $N \geq M$
- N $ M means N is either smaller than or equal to M. $N \leq M$
- N # M means N is neither smaller than nor greater than M. $N = M$

Now in each of the following questions assuming the given statements to be true, find which of the two conclusion I and II given below them is/are definitely true.

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11. **Statement:**

F @ M, M © D

Conclusion:

I. D % F

II. D # F

N © M means N is greater than M.

N % M means N is smaller than M.

N @ M means N is either greater than or equal to M.

N $ M means N is either smaller than or equal to M.

N # M means N is neither smaller than nor greater than M.

A. Only I is true

B. Only II is true

C. Either I or II true

D. Neither I nor II is true

E. Both I and II are true

11. **Statement:**

F @ M, M © D

Conclusion:

I. D % F

II. D # F

N © M means N is greater than M.

N % M means N is smaller than M.

N @ M means N is either greater than or equal to M.

N $ M means N is either smaller than or equal to M.

N # M means N is neither smaller than nor greater than M.

A. Only I is true

B. Only II is true

C. Either I or II true

D. Neither I nor II is true

E. Both I and II are true

Ans. A

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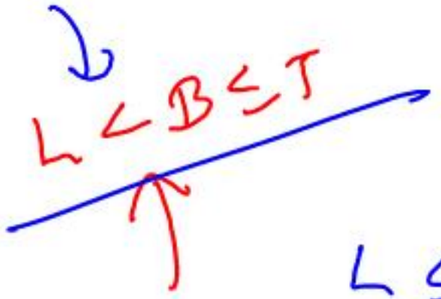
12. **Statement:**

L % B, B $ T



Conclusion:

I. L $ T

II. L % T

N © M means N is greater than M. >

N % M means N is smaller than M. <

N @ M means N is either greater than or equal to M. ≥

N $ M means N is either smaller than or equal to M. ≤

N # M means N is neither smaller than nor greater than M. =

A. Only I is true

B. Only II is true

C. Either I or II true

D. Neither I nor II is true

E. Both I and II are true

12. **Statement:**

L % B, B $ T

Conclusion:

I. L $ T

II. L % T

N © M means N is greater than M.

N % M means N is smaller than M.

N @ M means N is either greater than or equal to M.

N $ M means N is either smaller than or equal to M.

N # M means N is neither smaller than nor greater than M.

A. Only I is true

B. Only II is true

C. Either I or II true

D. Neither I nor II is true

E. Both I and II are true

Ans. B

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13. **Statement:**

D © M, M © N

Conclusion:

I. N % D

II. N $ D

N © M means N is greater than M.

N % M means N is smaller than M.

N @ M means N is either greater than or equal to M.

N $ M means N is either smaller than or equal to M.

N # M means N is neither smaller than nor greater than M.

A. Only I is true

B. Only II is true

C. Either I or II true

D. Neither I nor II is true

E. Both I and II are true

13. **Statement:**

D © M, M © N

Conclusion:

I. N % D

II. N $ D

N © M means N is greater than M.

N % M means N is smaller than M.

N @ M means N is either greater than or equal to M.

N $ M means N is either smaller than or equal to M.

N # M means N is neither smaller than nor greater than M.

A. Only I is true

B. Only II is true

C. Either I or II true

D. Neither I nor II is true

E. Both I and II are true

Ans. A

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14. **Statement:**

H @ R, R # K

Conclusion:

I. K # H

II. K $ H

A. Only I is true

B. Only II is true

C. Either I or II true

D. Neither I nor II is true

E. Both I and II are true

N © M means N is greater than M.

N % M means N is smaller than M.

N @ M means N is either greater than or equal to M.

N $ M means N is either smaller than or equal to M.

N # M means N is neither smaller than nor greater than M.

14. **Statement:**

H @ R, R # K

Conclusion:

I. K # H

II. K $ H

N © M means N is greater than M.

N % M means N is smaller than M.

N @ M means N is either greater than or equal to M.

N $ M means N is either smaller than or equal to M.

N # M means N is neither smaller than nor greater than M.

A. Only I is true

B. Only II is true

C. Either I or II true

D. Neither I nor II is true

E. Both I and II are true

Ans. B

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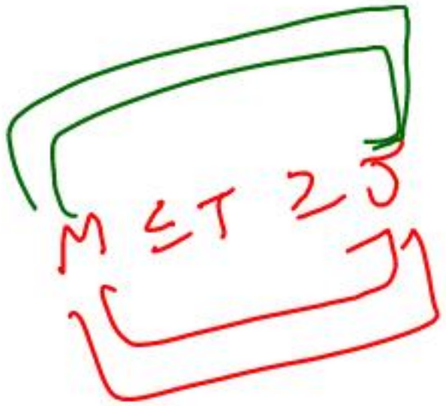

15. Statement:

M $ T, T @ J

Conclusion:

I. J % M

II. M % J

N © M means N is greater than M. >

N % M means N is smaller than M. <

N @ M means N is either greater than or equal to M. ≥

N $ M means N is either smaller than or equal to M. ≤

N # M means N is neither smaller than nor greater than M. =

A. Only I is true

B. Only II is true

C. Either I or II true

D. Neither I nor II is true

E. Both I and II are true

15. **Statement:**
M $ T, T @ J

Conclusion:
I. J % M
II. M % J

N © M means N is greater than M.
N % M means N is smaller than M.
N @ M means N is either greater than or equal to M.
N $ M means N is either smaller than or equal to M.
N # M means N is neither smaller than nor greater than M.

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

Direction: (16–20) Study the following information to answer the given questions:

- A$B means A is not smaller than B $A \geq B$
- A@B means A is neither smaller than nor equal to B $A > B$
- A#B means A is neither greater than nor equal to B $A < B$
- A&B means A is neither greater than nor smaller than B $A = B$
- A*B means A is not greater than B $A \leq B$

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16. **Statements:** L & Z, Z $ I, I # H, H * J

Conclusions:

I. J @ I

II. H @ L

III. I & L

IV. I # L

A$B means A is not smaller than B

A@B means A is neither smaller than nor equal to B

A#B means A is neither greater than nor equal to B

A&B means A is neither greater than nor smaller than B

A*B means A is not greater than B

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

16. **Statements:** L & Z, Z $ I, I # H, H * J

Conclusions:

I. J @ I

II. H @ L

III. I & L

IV. I # L

A$B means A is not smaller than B

A@B means A is neither smaller than nor equal to B

A#B means A is neither greater than nor equal to B

A&B means A is neither greater than nor smaller than B

A*B means A is not greater than B

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

Ans. E

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17. **Statements:** Z * V, V $ U, U # L, L @ O

Conclusions:

I. O # U $O < U$ CS

II. V @ L $V > L$ CS

III. Z # L $Z < L$ CS

IV. V @ O $V > O$ CS

A$B means A is not smaller than B $\geq$

A@B means A is neither smaller than nor equal to B $>$

A#B means A is neither greater than nor equal to B $<$

A&B means A is neither greater than nor smaller than B $=$

A*B means A is not greater than B $\leq$

A. None is true.

B. Only I is true.

C. Only II is true.

D. Only III is true.

E. Only IV is true

$Z \leq V \geq U < L > O$

17. **Statements:** Z * V, V $ U, U # L, L @ O

Conclusions:

I. O # U

II. V @ L

III. Z # L

IV. V @ O

A$B means A is not smaller than B

A@B means A is neither smaller than nor equal to B

A#B means A is neither greater than nor equal to B

A&B means A is neither greater than nor smaller than B

A*B means A is not greater than B

A. None is true.

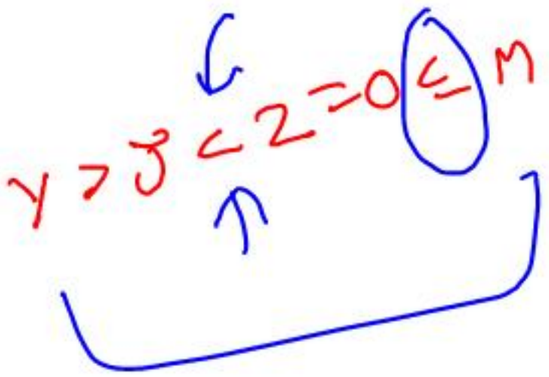
B. Only I is true.

C. Only II is true.

D. Only III is true.

E. Only IV is true

Ans. A



18. Statements: Y @ J, J # Z, Z & O, O * M

Conclusions:

I. M $ Z

II. O @ J

III. Y @ M

IV. J # M

A$B means A is not smaller than B

A@B means A is neither smaller than nor equal to B

A#B means A is neither greater than nor equal to B

A&B means A is neither greater than nor smaller than B

A*B means A is not greater than B

A. I, II and III are true.

B. I, II and IV are true.

C. I, III and IV are true.

D. I and IV are true.

E. All are true

18. **Statements:** Y @ J, J # Z, Z & O, O * M

Conclusions:

I. M $ Z

II. O @ J

III. Y @ M

IV. J # M

A$B means A is not smaller than B

A@B means A is neither smaller than nor equal to B

A#B means A is neither greater than nor equal to B

A&B means A is neither greater than nor smaller than B

A*B means A is not greater than B

A. I, II and III are true.

B. I, II and IV are true.

C. I, III and IV are true.

D. I and IV are true.

E. All are true

Ans. B

19. **Statements:** V # N, N * M, M @ L, L $ K

Conclusions:

I. K # N

II. K # M

III. N # L

IV. M @ V

A$B means A is not smaller than B

A@B means A is neither smaller than nor equal to B

A#B means A is neither greater than nor equal to B

A&B means A is neither greater than nor smaller than B

A*B means A is not greater than B

A. II and III are true.

B. II and IV are true.

C. III and IV are true.

D. I, and IV are true.

E. All are true

19. **Statements:** V # N, N * M, M @ L, L $ K

Conclusions:

I. K # N

II. K # M

III. N # L

IV. M @ V

A$B means A is not smaller than B

A@B means A is neither smaller than nor equal to B

A#B means A is neither greater than nor equal to B

A&B means A is neither greater than nor smaller than B

A*B means A is not greater than B

A. II and III are true.

B. II and IV are true.

C. III and IV are true.

D. I, and IV are true.

E. All are true

Ans. B

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20. Statements: Z $ V, V @ U, U * T, T # S

Conclusions:

I. S @ V

II. Z $ T

III. V @ S

IV. Z @ U

A$B means A is not smaller than B

A@B means A is neither smaller than nor equal to B

A#B means A is neither greater than nor equal to B

A&B means A is neither greater than nor smaller than B

A*B means A is not greater than B

A. None is true.

B. Only I is true.

C. Only II is true

D. Only III is true

E. Only IV is true

20. **Statements:** Z $ V, V @ U, U * T, T # S

Conclusions:

I. S @ V

II. Z $ T

III. V @ S

IV. Z @ U

A$B means A is not smaller than B

A@B means A is neither smaller than nor equal to B

A#B means A is neither greater than nor equal to B

A&B means A is neither greater than nor smaller than B

A*B means A is not greater than B

A. None is true.

B. Only I is true.

C. Only II is true

D. Only III is true

E. Only IV is true

Ans. E

Direction: (21–25) In each of the questions given below, some conclusions are given. Select the option according to which all of the given conclusions follow.

- A ! B means A is neither greater than nor smaller than B $=$
- A * B means A is not greater than B $\leq$
- A $ B means A is not smaller than B $\geq$
- A @ B means A is neither smaller than nor equal to B $>$
- A # B means A is neither greater than nor equal to B $<$

21. **Conclusions:**

A ! B means A is neither greater than nor smaller than B

A * B means A is not greater than B

A $ B means A is not smaller than B

A @ B means A is neither smaller than nor equal to B

A # B means A is neither greater than nor equal to B

I. N @ O

II. O * D

A. D $ P, S * O, N @ S, D $ O

B. D $ P, S @ O, N @ S, D ! O

C. D $ P, S @ O, N # S, D $ O

D. D $ P, S @ O, N @ S, D $ O

E. None of these

21. **Conclusions:**

I. N @ O

II. O * D

A ! B means A is neither greater than nor smaller than B
A * B means A is not greater than B
A $ B means A is not smaller than B
A @ B means A is neither smaller than nor equal to B
A # B means A is neither greater than nor equal to B

A. D $ P, S * O, N @ S, D $ O
B. D $ P, S @ O, N @ S, D ! O
C. D $ P, S @ O, N # S, D $ O
D. D $ P, S @ O, N @ S, D $ O
E. None of these

Ans. D

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22. Conclusions:

A ! B means A is neither greater than nor smaller than B =
A * B means A is not greater than B ≤
A $ B means A is not smaller than B ≥
A @ B means A is neither smaller than nor equal to B >
A # B means A is neither greater than nor equal to B <

I. B @ N

II. N # Q

A. Z * Q, N $ Y, B @ Y, Z @ N
B. Z * Q, N * Y, B @ Y, Z # N
• C. Z * Q, N * Y, B @ Y, Z @ N
D. Z $ Q, N * Y, B @ Y, Z @ N
E. None of these

22. **Conclusions:**

I. B @ N

II. N # Q

A ! B means A is neither greater than nor smaller than B
A * B means A is not greater than B
A $ B means A is not smaller than B
A @ B means A is neither smaller than nor equal to B
A # B means A is neither greater than nor equal to B

A. Z * Q, N $ Y, B @ Y, Z @ N
B. Z * Q, N * Y, B @ Y, Z # N
C. Z * Q, N * Y, B @ Y, Z @ N
D. Z $ Q, N * Y, B @ Y, Z @ N
E. None of these

Ans. C

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23. Conclusions:

A ! B means A is neither greater than nor smaller than B

A * B means A is not greater than B

A $ B means A is not smaller than B

A @ B means A is neither smaller than nor equal to B

A # B means A is neither greater than nor equal to B

I. N @ V

II. V * B

A. W * B, V # P, B ! V, P # N

B. W * B, V @ P, B $ V, P # N

C. W * B, V # P, B $ V, P # N

D. W * B, V # P, B $ V, P @ N

E. None of these

23. **Conclusions:**

I. N @ V

II. V * B

A ! B means A is neither greater than nor smaller than B
A * B means A is not greater than B
A $ B means A is not smaller than B
A @ B means A is neither smaller than nor equal to B
A # B means A is neither greater than nor equal to B

A. W * B, V # P, B ! V, P # N
B. W * B, V @ P, B $ V, P # N
C. W * B, V # P, B $ V, P # N
D. W * B, V # P, B $ V, P @ N
E. None of these

Ans. C

BYJU'S EXAM PREP

24. Conclusions:

A ! B means A is neither greater than nor smaller than B

A * B means A is not greater than B

A $ B means A is not smaller than B

A @ B means A is neither smaller than nor equal to B

A # B means A is neither greater than nor equal to B

I. T $ P

II. E @ O

A. E $ T, V @ O, O # P, P ! E

B. V @ O, O # P, P ! E, E * T

C. V @ O, O # P, P ! E, T * E

D. V @ O, O # P, P @ E, E * T

E. None of these

24. **Conclusions:**

I. T $ P

II. E @ O

A ! B means A is neither greater than nor smaller than B
A * B means A is not greater than B
A $ B means A is not smaller than B
A @ B means A is neither smaller than nor equal to B
A # B means A is neither greater than nor equal to B

A. E $ T, V @ O, O # P, P ! E
B. V @ O, O # P, P ! E, E * T
C. V @ O, O # P, P ! E, T * E
D. V @ O, O # P, P @ E, E * T
E. None of these

Ans. B

BYJU'S EXAM PREP

25. Conclusions:

A ! B means A is neither greater than nor smaller than B

A * B means A is not greater than B

A $ B means A is not smaller than B

A @ B means A is neither smaller than nor equal to B

A # B means A is neither greater than nor equal to B

I. M # L

II. L @ C

A. C # P, P * L, L @ E, E * M

B. P # C, P * L, L @ E, E $ M

C. C # P, P * L, L @ E, E $ M

D. C @ P, P * L, L @ E, E $ M

E. None of these

BYJU'S EXAM PREP

25. Conclusions:

A ! B means A is neither greater than nor smaller than B
A * B means A is not greater than B
A $ B means A is not smaller than B
A @ B means A is neither smaller than nor equal to B
A # B means A is neither greater than nor equal to B

I. M # L

II. L @ C

A. C # P, P * L, L @ E, E * M
B. P # C, P * L, L @ E, E $ M
C. C # P, P * L, L @ E, E $ M
D. C @ P, P * L, L @ E, E $ M
E. None of these
Ans. C

BYJU'S EXAM PREP

PLATFORM/APP

DAY 3

Latest Pattern
Seating Arrangement

Seating Arrangement with Uncertain Number of Persons

Part - 1

with Ankit sir

[17th - 22nd OCT]

@ 5pm

17
18 Records