DPP (INEQUALITY) BACKLOG/REVISION COURSE

STRAIGHT OBJECTIVE TYPE

1. Set of values of x for the inequation $-5 \le \frac{2-3x}{4} \le 9$

(A) $\frac{-34}{3} \le x \le \frac{22}{3}$ (B) $\frac{-34}{3} < x < \frac{22}{3}$

(C) $\frac{-34}{3} < x \le \frac{22}{3}$ (D) $\frac{-34}{3} \le x < \frac{22}{3}$

2. Set of values of x for the inequation $3x - 4 \ge -2x + 6$

(A) $x \le 2$ (B) $x \ge 2$

(C) $x < 2$ (D) $x > 2$

3. Set of values of x for the inequation $\frac{x-5}{x+2} < 0$

(A) $-2 \le x \le 5$ (B) $2 < x < 5$

(C) $-2 < x < 5$ (D) $x > 2$

4. Set of values of x for the inequation $\frac{4-3x}{5} < \frac{2x-5}{4}$

(A) $x > \frac{41}{22}$ (B) $x < \frac{41}{42}$

(C) $x \in R$ (D) $x \ge \frac{41}{22}$

5. Set of values of x for the inequation $\frac{2x-3}{4} + 8 > 2 + \frac{4x}{3}$

(A) $x < 6.3$ (B) $x > 6.3$

(C) $x < 6$ (D) $x > 6$

6. Set of values of x for the system of inequation $2x - 7 > 5 - x$, $11 - 5x \le 1$

(A) $-4 < x < 4$ (B) $x \in R$

(C) $x > 4$ (D) $x < 4$

7. Set of values of x for the system of the inequation $5x - 7 < 3(x + 3), 1 - \frac{3x}{2} \ge x - 4$

(A) $x \le 2$ (B) $x \ge 2$

(C) $x \in R$ (D) $x \in \phi$

8. Set of values of x for the inequation $-3 \le \frac{4-7x}{2} \le 18$

(A) $\frac{-32}{7} \ge x \ge \frac{10}{7}$ (B) $x < \frac{7}{9}$

(C) $\frac{-32}{7} \le x \le \frac{10}{7}$ (D) $x > \frac{7}{4}$

9. Set of values of x for the inequation $\frac{4+2x}{3} \ge \frac{x}{2} - 3$

(A) $x \le -26$ (B) $x \in R$

(C) $x \ge -26$ (D) $x \in \phi$

10. Set of values of x for the inequation $\frac{x}{4} < \frac{5x-2}{3} - \frac{7x-3}{5}$

(A) $x > 4$ (B) $x < 4$

(C) $-4 < x < 4$ (D) $x \in R$

MULTIPLE CORRECT ANSWER TYPE

Which of the following is/are the solution of given system of inequalities

11. $x + 2 \le 5, 3x - 4 > -2 + x$

(A) 1 (B) 2

(C) 3 (D) 4

12. $2(x + 1) < x + 5, 3(x + 2) > 2 - x$

(A) 1 (B) 2

(C) 3 (D) 4

13. $\frac{x-2}{x+2} \ge 3, 2x - 7 \le 5$

(A) 4 (B) -4

(C) 3 (D) - 3

14. $\frac{x+7}{x-4} > 2, \frac{2x+1}{x-2} > 3$

(A) 5 (B) 6

(C) 7 (D) 8

MATRIX & MATCHING

15.

	Column I		**Column II**
(A)	Set of values of x for the inequation $3x + 17 \le 2(1 - x)$	(p)	$x > 3$
(B)	Set of values of x for the inequation $37 - (3x + 5) \ge 9x - 8 (x - 3)$	(q)	$4 < x < 9$
(C)	Set of values of x for the system of the inequation $\frac{4x}{3} - \frac{9}{4} < x + \frac{3}{4}, \frac{7x-1}{3} - \frac{7x+2}{6} > x$	(r)	$x \le - 2$
(D)	Set of values of x for the system of the inequation $-2 - \frac{x}{4} \le \frac{1+x}{3}$, $3 - x < 4 (x - 3)$	(s)	$x \le - 3$

16.

	Column I		**Column II**
(A)	$3x - 7 < 1$	(p)	$x \le 2$
(B)	$2x - 5 < 3$	(q)	$x > -1$
(C)	$2 < 3x + 5$	(r)	$x < 4$
(D)	$7x - 3 \le 11$	(s)	$x < 8/3$

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INTEGER ANSWERS TYPE

17. If $x^2 - 1 \le 8 \Rightarrow x \in [k_1, k_2]$, then find $k_1 + k_2$

18. If $|x - 2| = p$, where $x < 2$, then $x - p = ?$

19. If $x^2 - 1 \le 3 \Rightarrow x \in [k_1, k_2]$ find k_2

20. $|x - 2| \le 5$, then maximum value of x

21. $|x - 3| \ge 6$, then minimum positive value of x is

COMPREHENSION TYPE

$|x - 2| \le 4$

22. Find minimum value of x

23. Find maximum value of x

24. In which interval x lies

SOLUTION

1. (A)
2. (B)
3. (C)
4. (A)
5. (A)
6. (C)
7. (A)
8. (C)
9. (C)
10. (A)
11. (B, C)
12. (A, B)
13. (B, D)
14. (A, B)
15. (A-s), (B-r), (C-q), (D-p)
16. (A-s), (B-r), (C-q), (D-p)
17. 0
18. $x - p = 2$
19. 2
20. 7
21. 9
22. –2
23. 6
24. $x \in [-2, 6]$