QUIZ-01
Equations and Inequalities

Q.1. Solve the following **Linear Equations**:

A. $3(x - 2) + 4(2 - x) = x + 2(x + 1)$
B. $(t/2) – 3 = 5 + (t/2)$
C. $(y - 3)/2 = (4 – 3y)/3$
D. $(z - 3)/2 + (z + 3)/4 = (8 - z)/8 + 2$
E. $u – 5 = - (-2u + 10)/2$

Q.2. Solve the following **Linear Inequalities** and show your answer on the number line as well as in bracket form also:

A. $-2x + 1 \leq 5x + 3 \leq 6 – x$
B. $[(3x-4)/2] \geq [(x+1)/4] -1$
C. $-3 \leq 3 – 2x < 6$
D. $[(x + 2)/3] < 3x – 1$
E. $[(4x + 1)/(x - 1)] > 3$

Q.3. Solve the following **Quadratic Inequalities** and show your answer on the number line as well as in bracket form also:

A. $(x - 4)^2 + 2 < 13 – 2x$
B. $(x - 10)(x - 4) \geq 5(x - 1) – 3$
C. $2(3x - 4) – (x + 6)(x - 2) > 0$
D. $(2x - 3)(x + 4) \leq x(x + 6)$
E. $(x + 1)^2 – 8(x + 1)(x + 2) < 0$

Q.4. Solve the following **Modulus Equations**:

A. $|x| = |-x + 5|$
B. $|5 – 3x| = |-2x + 7|$
C. $|2x - 10| - |4x - 7| = 0$
D. $|(x + 1)/10| = 10$
E. $|(2x + 1)/(2x - 1)| = 1$

Q.5. Solve the following **Modulus Inequalities** and show your answer on the number line as well as in bracket form also:

A. $|t/2| \leq 12$
B. $|y + 1| \geq -9$
C. $|x^2 - 2| \geq 2$
D. $|3x - 8| > 4$
E. $|x^2 - 8| \leq 8$

BEST OF LUCK