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(Affiliated to CBSE up to +2 Level)

CLASS: X

SUB.: MATHS (NCERT BASED)

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Chapter 4:- Quadratic Equations

According to new CBSE Exam Pattern,

MCQ Questions for Class 10 Maths Carries 10 Marks.

- Every quadratic polynomial can have at most
(a) three zeros (b) one zero (c) two zeros (d) none of these
- If $x^2 + 5px + 16$ has no real roots, then
(a) $p > \frac{8}{5}$ (b) $-\frac{8}{5} < p < \frac{8}{5}$ (c) $p < -\frac{8}{5}$ (d) none of these
- For $ax^2 + bx + c = 0$, which of the following statement is wrong?
(a) If $b^2 - 4ac$ is a perfect square, the roots are rational.
(b) If $b^2 = 4ac$, the roots are real and equal.
(c) If $b^2 - 4ac$ is negative, no real roots exist.
(d) If $b^2 = 4ac$, the roots are real and unequal.
- The roots of the equation $9x^2 - bx + 81 = 0$ will be equal, if the value of b is
(a) ± 9 (b) ± 18 (c) ± 27 (d) ± 54
- The value of p for equation $2x^2 - 4x + p = 0$ to have real roots will be
(a) $p \leq -2$ (b) $p \geq 2$ (c) $p \leq 2$ (d) $p \geq -2$
- If $p = 1$ and $q = -2$ are roots of equation $x^2 - px + q = 0$, then quadratic equation will be
(a) $x^2 + 2x - 1 = 0$ (b) $x^2 - x - 2 = 0$ (c) $x^2 - 2x + 1 = 0$ (d) $x^2 + x + 2 = 0$
- Roots of quadratic equation $x^2 - 3x = 0$, will be
(a) 3 (b) 0, -3 (c) 0, 3 (d) none of these
- Value of D when root of $ax^2 + bx + c = 0$ are real and unequal will be
(a) $D \geq 0$ (b) $D > 0$ (c) $D < 0$ (d) $D = 0$
- Positive value of p for which equation $x^2 + px + 64 = 0$ and $x^2 - 8x + p = 0$ will both have real roots will be
(a) $p \geq 16$ (b) $p \leq 16$ (c) $p = 1$ (d) none of these
- If the equation $x^2 - kx + 1$, have no real roots, then
(a) $-2 < k < 2$ (b) $-3 < k < 3$ (c) $k > 2$ (d) $k < -2$

V.S.A. Type Questions for Class 10 Maths Carries 10 Marks.

- Find the value of k for which the quadratic equation $kx^2 - 5x + k = 0$ have real roots. (2 Marks)
- If -4 is a root of the quadratic equation $x^2 + px - 4 = 0$ and $x^2 + px + k = 0$ has equal roots, find the value of k. (2 Marks)
- For what value of k, does the given equation have real and equal roots?
 $(k + 1)x^2 - 2(k - 1)x + 1 = 0$. (2 Marks)
- Using quadratic formula, solve the following quadratic equation for x:
 $x^2 - 2ax + (a^2 - b^2) = 0$ (2 Marks)
- For what value of k are the roots of the quadratic equation $3x^2 + 2kx + 27 = 0$ real and equal? (2 Marks)