CLASS TEST: POLYNOMIALS-X (MATHEMATICS)

Time Allowed 30 Minutes **Maximum Marks: 15**

General Instructions:

1. In this question paper have 9 questions.
2. Q1 to Q5 are MCQs each carry 1 mark, Q6 to Q7 are short type Qs each carry 2 marks and Q8 to Q9 are long answer type Qs each carry 3 marks.
3. Write your answer on given space.

Name of Student:_____, Class:_____, Achieve Marks:_____

MULTIPLE CHOICE QUESTIONS (Q1-Q5) 1x5=5		
Q.N.	**Question**	**Answer**
Q1.	If one zero of the quadratic polynomial $x^2 + 3x + k$ is 2, then the value of k is: (a) 10 (b) -10 (c) 5 (d) -5	
	ANS :	
Q2.	The zeroes of the quadratic polynomial $x^2 + 10x + 16$ are: (a) both +ve (b) both -ve (c) one +ve and one -ve (d) both equal	
	ANS :	
Q3.	A quadratic polynomial, whose zeroes are -4 and -5, is (a) $x^2-9x + 20$ (b) $x^2 + 9x + 20$ (c) $x^2-9x- 20$ (d) $x^2 + 9x- 20$	
	ANS :	
Q4.	The graph of the polynomial $ax^2 + bx + c$ is an upward parabola if: (a)$a > 0$ (b) $a < 0$ (b) $a = 0$ (d) None **OR** Graph of a quadratic polynomial is a (a) straight line (b) circle (c) parabola (d) ellipse	
	ANS :	
Q5.	The sum and the product of the zeroes of polynomial $6x^2 – 5$ respectively are (a) 0, −6/5 (b) 0, 6/5 (c) 0, 5/6 (d) 0, −5/6	
	ANS :	
SHORT ANSWER TYPE QUESTIONS(Q6-Q7) 2x2=4		
Q6.	Find the quadratic polynomial, the sum of whose zeroes is 8 and their product is 12. Hence, find the zeroes of the polynomial	
	ANS :	

Q7.	If α and β are zeroes of $x^2 - 4x + 1$, then find the value of $1/\alpha + 1/\beta - \alpha\beta$ is **OR** If α, β are the zeroes of the polynomial $p(x) = x^2 - 16$, then $\alpha\beta(\alpha + \beta)$
	ANS :
LONG ANSWER TYPE QUESTIONS(Q6-Q7)	**3x2 = 6**
Q8.	If α, β are zeroes of $x^2 - 6x + k$, what is the value of k if $3\alpha + 2\beta = 20$? **OR** Find the value of 'k' such that the quadratic polynomial $3x^2 + (2k+1)x - (k+5)$ has the sum of zeroes as half of their product.
	ANS :
Q9.	Find the zeroes of the quadratic polynomial $6x^2 - 3 - 7x$ and verify the relationship between the zeroes and the coefficient of the polynomial.
	ANS :