



**Unit Test - 3 : 2020-21**  
**Std-10 (English Medium)**  
**Subject : Maths (12)**

Time : 45 Minutes

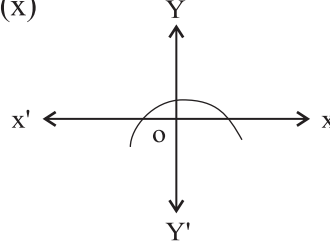
Total Marks : 25

**Instructions :** \* This question paper contains 12 sub questions.  
\* All the questions are compulsory.

**Section-A**

• **Answer the following questions as per instructions given. (1 mark each) [4]**

Q-1 The graph for polynomial  $p(x)$ ,  $y = p(x)$   
find the number of zeros for  $p(x)$



Q-2 For the given quadratic equation  $5x + 3y = 5$  state the root.  
(A) (1, 0) (B) (2, 1) (C) (-1, -2) (D) (0, 1)

Q-3 State the common difference  $d$  for the given A.P.  $\frac{3}{2}, \frac{1}{2}, -\frac{1}{2}, -\frac{3}{2}, \dots$

Q-4 Point (4, -3) is at a Perpendicular distance of ..... from the X-axis.

**Section-B**

• **Answer the Following. (2 marks each) [8]**

Q-5 Find the zeros of the polynomial  $x^2 - 3$  and verify the relationship between the zeros and the coefficients.

Q-6 Solve the following pair of linear equations by the elimination method.  
 $x + y = 5$ ,  $2x - 3y = 4$

Q-7 Find the sum of the A.P.  $34 + 32 + 30 + \dots + 10$

Q-8 Find the Co-ordinates of the point which divides the line segment joining the points (4, -3) and (8, 5) in the ratio 3 : 1 internally.

**Section-C**

• **Answer the Following. (3 marks each) [9]**

Q-9 Divide  $3x^3 + x^2 + 2x + 5$  by  $1 + 2x + x^2$

Q-10 A manufacturer of TV sets produced 600 sets in the third year and 700 sets in the seventh year. Assuming that the production increases uniformly by a fixed number every year. Find (i) The production in the first year (ii) The production in the 10<sup>th</sup> year (iii) The total production in the first 7 years.

Q-11 Find the area of the triangle formed by the points (2, 3), (-1, 0), (2, -4)

**Section-D**

• **Solve the following. [4]**

Q-12 Mansi travels 300 kms to her native partly by train and partly by bus. She takes 4 hours, if she travels 60 kms by train and the remaining by bus. If she travels 100 kms by train and the remaining by bus, she takes 10 minutes longer. Find the average speed of the train and the bus separately.