PRISM WORLD

Std.: 9 (English) **Maths - I** **Marks: 20**

Date: **Time: 1 hour**

Chapter: 3

Q.1 Choose the correct alternatives. **(3)**

1) $p(y) = 2y^2 - 3y + 5$ then $p(2) = p(-2)$

a. True b. False

2) What is the degree polynomial $2x^2 + 5x^3 + 7$?

a. 3 b. 2 c. 5 d. 7

3) Which of the following is a linear polynomial ?

a. $x + 5$ b. $x^2 + 5$ c. $x^3 + 5$ d. $x^4 + 5$

Q.2 Solve the following question. (Any Two) **(4)**

1) If the value of the polynomial $m^3 + 2m + a$ is 12 for $m = 2$, then find the value of a

2) Factorise: $x^2 - 6xy - 7y^2$

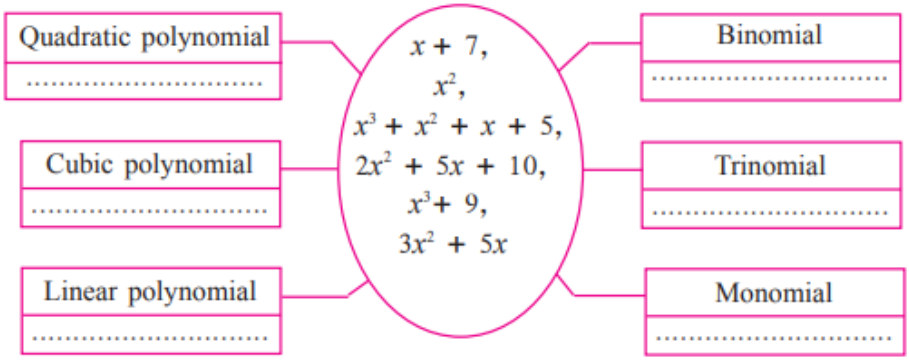
3) If $p(x) = x^3 - 7x^2 + 15x - 9$, find $p(3)$

Q.3 Solve the following question. (Any Two) **(6)**

1) Divide $(2 + 2x^2) \div (x + 2)$

2) The value of the polynomial $ay^2 + 2y - 6$ for $y = -3$ is 15. Find a.

3) Write the appropriate polynomials in the boxes.



Q.4 Solve the following question. (Any One) **(4)**

1) If $x - 2$ and $x - \frac{1}{2}$ both the factor of the polynomial $nx^2 - 5x + m$, then show that $m = n = 2$

2) Divide each of the following polynomials by synthetic division method and also by linear division method. Write the quotient and the remainder. $(x^4 + 2x^3 + 3x^2 + 4x + 5) \div (x + 2)$

Q.5 Solve the following question. (Any One) **(3)**

1) Divide $x^4 - 5x^2 - 4x$ by $x + 3$ and find the remainder.

2) Use synthetic division method for performing the following divisions. Write the result in the form

Dividend = Divisor x Quotient + Reminder : $(x^5 + x^3 + x^2 - 2x + 4) \div (x + 3)$