CLASS - IX ASSIGNMENT NO. 3

POLYNOMIALS

Q1. Find the Value of p and q when the polynomial $x^3 + px^2 + qx + 6$ leaves remainder 3 when divided by $x-3$ and leaves the remainder zero when divided by $(x-2)$

[Ans $p = -3$; $q = -1$]

Q2. Find the Value of 'a' and 'b' when the polynomial $x^4 - 2x^3 + 3x^2 - ax + b$ leaves remainder 5, 19 when divided by $(x-1)$, $(x+1)$ respectively

[Ans $a = 5$; $b = 8$]

Q3 Find the Value of R when $4x^3 + 3x^2 + Rx - 6$ is divided by $(x+1)$ [Ans $R = -7$]

Q4. Show that $(x+1)$ is a factor of $x^3 + x^2 + x + 1$

Q5. What must be added to $x^3 - 3x^2 + 4x - 13$ to obtain a polynomial which is exactly divisible by ~~x-3~~ $x-3$

[Ans : (1)(~~2~~)]

Q6. What must be subtracted from $4x^3+16x^2-x+5$ to obtain a polynomial which is exactly divisible by $(x+5)$

[Ans : (-90)]

Q7. Find the value of K if $(x-K)$ is a factor of the polynomial $x^6-Kx^5+x^4-Kx^3+3x-K+2$.

[Ans : $K=-1$]

Q8 Show that $(x-2)$, $(x+3)$, $(x-7)$ are factors of $x^3-6x^2+13x+42$

Q9. Find integral zeroes of $3y^3+8y^2-1$

[Ans : No integral zero]

Q10. Show that the polynomial $2x^3+5x^2-5x-1$ has no integral zero.