CLASS 9

MATHS ASSIGNMENT

POLYNOMIAL

1) Write the coefficient of x^2 in each

(i) $2 + x^2 + x$ (ii) $\frac{\pi}{2} x^2 + x$.

2) Find the value of the polynomial $5x - 4x^2 + 3$ at $x = -1$.

3) Find $P(0)$, $P(1)$ and $P(2)$ for $P(x) = (x-1)(x+1)$

4) Find the zero of the polynomial $P(x) = x - 5$

5) Find the remainder when $x^3 + 3x^2 + 3x + 1$ is divided by $(x - \frac{1}{2})$.

6) Determine whether $(x+1)$ is a factor of $x^4 + x^3 + x^2 + 1$.

7) Find the product using suitable identities

(i) $(y^2 + \frac{3}{2})(y^2 - \frac{3}{2})$ (ii) 95×96

8) Factorise

(i) $4y^2 - 4y + 1$.

(ii) $x^2 - \frac{y^2}{100}$

(iii) $27 - 125a^3 - 135a + 225a^2$

iv) $27y^3 + 125z^3$

(v) $27x^3 + y^3 + z^3 - 9xyz$

9) Expand (i) $(3a - 7b - c)^2$ (ii) $(2x - y + z)^2$

10) Evaluate (i) $(99)^3$ (ii) $(102)^3$

CLASS 9 ASSIGNMENT

MATHS

NUMBER SYSTEM

1) Find 5 Rational number between $\frac{3}{5}$ and $\frac{4}{5}$

2) Locate
(i) $\sqrt{2}$ (ii) $\sqrt{3}$ on two different number lines.

3) Show how $\sqrt{5}$ can be represented on a number line.

4) Show 3.142678 is a rational number

5) Write in decimal form
(i) $\frac{1}{11}$ (ii) $\frac{329}{400}$

6) Express (i) $0.\bar{6}$ (ii) $0.4\bar{7}$ in the form $\frac{p}{q}$.

7) Visualise on a number line using successive magnification.
(i) $5.3\bar{7}$ (ii) 3.765

8) Simplify $(5+\sqrt{7})(2+\sqrt{5})$

9) Rationalise (i) $\frac{1}{\sqrt{2}}$ (ii) $\frac{1}{\sqrt{5}+\sqrt{2}}$

10) Find (i) $32^{1/5}$
(ii) $16^{3/4}$
(iii) $\frac{11^{1/2}}{11^{1/4}}$
iv) $2^{2/3} \cdot 2^{1/5}$