EVERWIN VIDHYASHRAM 25/6/19

IX T.T MATHS Marks : 20

I Answer in one word. $3 \times 1 = 3$

1. Write the coefficients of x^2 in $2 - x^2 + x^3$
2. Write the degree of $4 - y^2$.
3. classify as linear, quadratic and cubic polynomial $7x^3$.

II Answer the following $4 \times 2 = 8$

1. Find the value of $p(x) = 5x^2 - 3x + 7$ at $x = 1$
2. Find $p(1)$ polynomial of $p(y) = y^2 + y + 1$
3. Find the zero of the polynomial. $p(x) = x + 14$.

III Answer the following $3 \times 3 = 9$

1. Find the remainder when $x^3 - ax^2 + 6x - a$ is divided by $x - a$
2. Find the remainder when $x^4 + x^3 - 2x^2 + x + 1$ is divided by $x - 1$.
3. Find the remainder $p(x) = x^3 + 1$ by $x + 1$

Answer key

I

1. -1
2. 2
3. cubic

II

1. $5x^2-3x+7$

$5(1)-3(1)+7$

$5-3+7$

$2+7$

$\boxed{9}$

2. y^2+y+1

1^2+1+1

$1+1+1$

$\boxed{=3}$

3. $x+14=0$

$\boxed{x=-14}$

III

1. x^3-ax^2+6x-a

$=(a)^3-a(a^2)+6a-a$

$=a^3-a^3+6a-a$

$\boxed{=5a}$

2. $x^4+x^3-2x^2+x+1$

$x-1=0$

$\boxed{x=1}$

$1^4+1^3-2(1)^2+1+1$

$1+1-2+1+1$

$\boxed{=2}$

3. $p(a)=x^3+1$

$x+1=0$

$\boxed{x=-1}$

$(-1)^3+1 \Rightarrow -1+1=0.$