## Class 9

14-5-2015
Formative Assessment I in MATHEMATICS
Time : 1 hr .

SECTION - A ( $1 \times 4=4$ marks $)$

1. Find the zero of the polynomial $7 x+5$.
2. Write the abscissa of the following points:
a) $\quad \mathrm{P}(-3,7)$
b) $\quad Q(7,-5)$
3. Find the value of the polynomial $3 x^{3}+5 x^{2}-2 x-9$ if $x=2$.
4. In which quadrant does the following points lie?
a) $(-8,3)$
b) $(2,-1)$
SECTION - B ( $2 \times 3=6$ marks $)$
5. Using remainder theorem, find the remainder when $x^{3}+4 x^{2}-3 x+10$ is divided by $x+4$.
6. Without actually calculating the cube, find the value of $13^{3}+(-18)^{3}+5^{3}$.
7. Find the value of $a$ if $(x-a)$ is a factor of $x^{5}-a^{2} x^{3}+2 x+a+1$.

$$
\text { SECTION -C ( } 3 \times 2=6 \text { marks })
$$

8. Factorise :

$$
\text { a) } \quad \frac{1}{16} a^{2}+\frac{1}{4} b^{2}+1-\frac{1}{4} a b-b+\frac{1}{2} a
$$

b) $125 a^{3}+b^{3}+75 a^{2} b+15 a b^{2}$
9. Draw a quadrilateral whose vertices are $(2,2),(-2,2),(-2,-2)$ and $(2,-2)$ on a graph paper and name the type of quadrilateral formed and find its area.

$$
\text { SECTION - D ( } 4 \times 1=4 \text { marks })
$$

10. Factorise the following polynomial using factor theorem

$$
x^{3}-6 x^{2}+11 x-6
$$

