## Class 9

11-5-2016
Formative Assessment I in MATHEMATICS
Time : 1 hr .
M. Marks : 20

## SECTION - A (1 x 4 = 4 marks)

1. Check if $\frac{-1}{3}$ is the zero of $p(x)=9 x^{2}-1$.
2. Factorize $8 x^{3}-125 y^{3}$.
3. A perpendicular is drawn from the point $A(4,6)$ to the $x$-axis. Write the coordinates of the point at which it intersects the $x$-axis.
4. Expand $(3 x+1)^{3}$ using suitable identity.

$$
\text { SECTION - B (3 x } 2 \text { = } 6 \text { marks })
$$

5. Factorize $8 x^{3}+y^{3}+z^{3}-6 x y z$.
6. Using factor theorem show that $x-\sqrt{2}$ is a factor of $p(x)=7 x^{2}-4 \sqrt{2} x-6$.
7. Factorize $4 x^{2}+9 y^{2}+25 z^{2}-12 x y+30 y z-20 x z$.

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

8. Using remainder theorem, find the remainder when $x^{3}-6 x^{2}+6 x-5$ is divided by $(x-5)$ and hence verify your answer by division method.
9. Plot the points $A(-2,0), B(2,0), C(2,6)$ and $D(-2,3)$. Name the figure so formed by joining $A, B, C$ and $D$ in order.

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

10. Factorize $2 x^{3}-x^{2}-13 x-6$.
