



DAV PUBLIC SCHOOL CRRC MEDICAL ROAD GAYA

SUNDAY TEST – 01/09/2024

TIME – 40Min.

Std. – IX

FM – 20

MATHEMATICS

Each question carry 2 marks.

1. Plot $\sqrt{5}$ on the number line.
2. Express $2.353535\dots$ in the form of $\frac{a}{b}$.
3. If $x = 2 - \sqrt{3}$, then find the value of $x^2 + \frac{1}{x^2}$.
4. Find the remainder when $x^3 + ax^2 + 9x + a$, is divided by $x + a$.
5. Factorise $(a - b)^3 + (b - c)^3 + (c - a)^3$.

Each question carry 5 marks.

1. Prove that $x^3 + y^3 + z^3 - 3xyz = \frac{1}{2}(x + y + z)[(x - y)^2 + (y - z)^2 + (z - x)^2]$
2. Factorise $x^3 - 6x^2 - x + 30$.
