Each question carry 2 marks.

1. Plot $\sqrt{5}$ on the number line.

2. Express 2.353535…. 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 $x^3 - 6x^2 - x + 30$.

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