

- 1 Write the degree of the polynomial
- (i) $7x^3 + 4x - 12$ 2 marks
- (ii) $\frac{3}{y}x^2 - 4y + \frac{11}{3}$
- 2 Write the colff of x^2 2 marks
- (i) $13 - 2x^2 + x$ (ii) $\frac{\pi}{2}x^3 - 4x^2 + 1$
- (ii) $\sqrt{5}x - 7$ (iv) $9 + x^3 - 12x$
- 3 Classify the polynomial as linear, quadratic, cubic and biquadratic 2 marks
- (a) $m^2 - 1$ (c) y^3
- (b) $x^4 - x^2 + x - 1$ (d) $-7x + 8$
- 4 Find the Zero of the polynomial 2 marks
- (i) $f(x) = x - 5$
- (ii) $g(x) = 2x + 5$
- 5 If $x=2$ and $x=0$ are the roots of the polynomial $f(x) 2x^3 - 5x^2 + a x + b$, find the value of a and b 2 marks
- 6 Find integral roots of the polynomial $x^3 - 6x^2 + 11x + 6$ 3 marks
- 7 Simplify $\frac{4 + \sqrt{5}}{4 - \sqrt{5}} + \frac{4 - \sqrt{5}}{4 + \sqrt{5}}$ 2 marks
8. Prove $\frac{2^{30} + 2^{29} + 2^{28}}{2^{31} + 2^{30} - 2^{29}} = \frac{2}{10}$ 2 marks
9. Find the sum of $2.\bar{3}$ and $4.\bar{15}$ 3 marks