



BOARD-PATTERN PRACTICE PAPER · CBSE CLASS 10

Polynomials

Mathematics · Chapter 2 · Matches current CBSE blueprint · Each question PYQ-sourced where indicated

DATE _____	TOTAL MARKS 30	DURATION 60 min	MARKING As per board	TARGET ≥ 24/30
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GENERAL INSTRUCTIONS

1. All questions are compulsory.
2. The paper has four sections: A (MCQs, 1 mark each), B (2 marks each), C (3 marks each), D (5 marks).
3. Use of calculator is NOT permitted.
4. Show all working clearly; marks are awarded for steps.

Section A — MCQs (1 mark each)

6 MARKS · 10 MIN

- Q1.** Degree of the polynomial $7x^4 - 3x^2 + 2$ is: [PYQ 2023 Delhi] [1 mark]
- Q2.** Sum of zeroes of $x^2 - 9x + 20$ is: [PYQ 2024 Delhi] [1 mark]
- Q3.** Product of zeroes of $2x^2 + 7x - 15$ is: [PYQ 2024 Outside Delhi] [1 mark]
- Q4.** Number of real zeroes a quadratic polynomial can have is at most: [PYQ 2020 Delhi] [1 mark]
- Q5.** If the graph of $p(x)$ does not cut the x -axis, the number of real zeroes is: [PYQ 2022 Delhi] [1 mark]
- Q6.** A polynomial with zeroes 1 and -1 (leading coefficient 1) is: [PYQ 2019 Outside Delhi] [1 mark]

Section B — Short Answer I (2 marks each)

8 MARKS · 16 MIN

- Q7.** Find a quadratic polynomial whose zeroes are 3 and -2 . Verify the sum and product. [PYQ 2023 Outside Delhi]
- Q8.** If α, β are zeroes of $x^2 - 5x + 6$, find $\alpha^2 + \beta^2$. [PYQ 2024 Delhi] [2 marks]
- Q9.** Find the sum and product of zeroes of $4x^2 - 4x + 1$. [PYQ 2022 Delhi] [2 marks]
- Q10.** Find the zeroes of the polynomial $x^2 - 2x - 8$. [PYQ 2020 Delhi] [2 marks]

Section C — Short Answer II (3 marks each)

9 MARKS · 18 MIN

- Q11.** Find the zeroes of $6x^2 - 7x - 3$ and verify the relationship between zeroes and coefficients. [PYQ 2020 Delhi] [3 marks]
- Q12.** If α and β are zeroes of $x^2 - 6x + a$ and $3\alpha + 2\beta = 20$, find a . [PYQ 2019 Delhi] [3 marks]
- Q13.** Find the values of α, β, γ if α, β, γ are zeroes of $2x^3 - 5x^2 - 14x + 8$ and find $\alpha + \beta + \gamma, \alpha\beta\gamma$. [PYQ 2022 Outside Delhi] [3 marks]

Section D — Long Answer (5 marks)

7 MARKS · 16 MIN

- Q14.** (a) If one zero of the polynomial $(a^2 + 9)x^2 + 13x + 6a$ is the reciprocal of the other, find a . [3] (b) Form a quadratic polynomial whose zeroes are $5 + \sqrt{2}$ and $5 - \sqrt{2}$. [4] [PYQ 2023 Delhi] [7 marks]

Marking scheme & model answers — see companion Answer Key PDF · all PYQs traceable to actual CBSE papers ·
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