Mathematics

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(Chapter - 2) (Polynomials) (Practice Test 3) (Class X)

Time: 1 hour 15 minutes

M. M: 25

General Instructions:

- This question paper contains four sections: A, B, C and D. Each part is compulsory.
- Section A has 5 MCQ of one mark each.
- Section B has 3 questions of two marks each.
- Section C has 3 questions of three marks each.
- Section D has 2 questions of five marks each, attempt any 1 out of 2.
- There is no negative marking.

[Section - A]

- 1. If the zeroes of the quadratic polynomial $ax^2 + bx + c$, $c \neq 0$ are equal, then
 - (A) c and a have opposite signs

(B) c and b have opposite signs

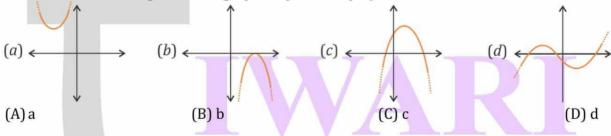
(C) c and a have same signs

- (D) c and b have the same sign
- 2. If one of the zeroes of a quadratic polynomial of the form $x^2 + ax + b$ is the negative of the other, then it
 - (A) has no linear term and the constant term is negative
 - (B) has no linear term and the constant term is positive
 - (C) can have a linear term but the constant term is negative
 - (D) can have a linear term but the constant term is positive
- 3. The number of polynomials having zeroes as 4 and 7 is

- (A) 2 (B) 3 (C) 4 (D) more than 4
- 4. The zeroes of the quadratic polynomial $x^2 + 1750x + 175000$ are

 - (A) both negative (B) one positive and one negative (C) both positive (D) both equal

- 5. Which of the following is not the graph of quadratic polynomial?



[Section - B]

- 6. If $x^3 + 1$ is divided by $x^2 + 5$, then the possible degree of quotient is?
- 7. If one of the zeroes of the cubic polynomial $x^3 + px^2 + qx + r$ is -1, then the product of the other two zeroes is?
- 8. If one of the zeroes of the quadratic polynomial $(k-1) x^2 + kx + 1$ the value of k is?

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[Section - C]

- 9. Given that one of the zeroes of the cubic polynomial $ax^3 + bx^2 + cx + d$ is zero, the product of the other two zeroes is?
- 10. If $4x^2 6x m$ is divisible by x 3, the value of m is exact divisor of?
- 11. If α, β, γ be zeroes of polynomial $6x^3 + 3x^2 5x + 1$, then find the value of $\alpha^{-1} + \beta^{-1} + \gamma^{-1}$.

[Section - D]

- 12. Form the polynomial whose zeroes are $2 + \frac{1}{\sqrt{2}}, 2 \frac{1}{\sqrt{2}}$.
- 13. Verify that the numbers given alongside the cubic polynomial below are their zeros. Also verify the relationship between the zeros and the coefficients.



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Hints and Answers

Section - A

- 1. c and a have the same sign
- 2. has no linear term and the constant term is negative
- 3. more than 4
- 4. both negative
- 5. d

Section - B

- 6. 1
- 7. q p + 1

Section - C

- 9. 3, 0
- 10. (A) $\frac{c}{a}$ (B) 9
- 11.5

Section - D

12. $2x^2 - 8x + 7$

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