



CLASS: X  
DATE: 19/05/24

MAX. MARKS: 20  
TIME: 40 MINUTES

**General Instructions:**

1. This Question paper contains - four sections A, B, C and D. Each section is compulsory. However, there are internal choices in some questions.
2. Section A has 4 MCQs and 1 Assertion-Reason based questions of 1 mark each.
3. Section B has 2 Very Short Answer (VSA)-type questions of 2 marks each.
4. Section C has 2 Short Answer (SA)-type questions of 3 marks each.
5. Section D has 1 Long Answer (LA)-type question of 5 marks.

<b>SECTION – A</b> (Multiple Choice Questions) Each question carries 1 mark	
1.	Find the LCM of smallest prime and smallest odd composite natural number. (a) 1                      (b) 4                      (c) 18                      (d) 9
2.	The graph of a polynomial $P(x)$ cuts the x-axis at 2 points and touches it at 3 other points. The number of zeroes of $P(x)$ is (a) 5                      (b) 2                      (c) 1                      (d) 3
3.	The pair of equations $y = 0$ and $y = 7$ has (a) two solutions    (b) one solution    (c) infinitely many solutions    (d) no solution
4.	A quadratic polynomial, the product and sum of whose zeroes are 5 and 8 respectively is: (a) $k(x^2 - 8x + 5)$ (b) $k(x^2 + 8x + 5)$ (c) $k(x^2 - 5x + 8)$ (d) $k(x^2 + 5x + 8)$
5.	Assertion: Polynomial $x^2 + 4x$ has two real zeroes. Reason: Zeroes of the polynomial $x^2 + ax$ ( $a \neq 0$ ) are 0 and a. a) Both assertion and reason are true and reason is the correct explanation of assertion. b) Both assertion and reason are true but reason is not the correct explanation of assertion. c) Assertion is true but reason is false. d) Assertion is false but reason is true.
<b>SECTION – B</b> [This section comprises of very short answer type questions (VSA) of 2 marks each]	
6.	For which value of k will the following pair of linear equations have no solution? $2y + x = 3$ , $(k - 1)x + (k + 1)y = k + 2$ <p style="text-align: center;">OR</p> Solve for x and y if $\sqrt{2}x - \sqrt{4}y = 0$ and $\sqrt{3}x - \sqrt{6}y = 0$

7.	What is the smallest number which when increased by 6 becomes divisible by 36, 63 and 108?
<b>SECTION – C</b> [This section comprises of short answer type questions (SA) of 3 marks each]	
8.	If one zero of the quadratic polynomial $P(x) = 4x^2 - 8kx + 8x - 9$ is negative of the other, then find the zeroes of $kx^2 + 3kx + 2$
9	Prove that $2\sqrt{7}$ is an irrational number. <b>OR</b> A forester wants to plant 66 apple trees, 88 banana trees and 110 mango trees in equal rows (in terms of number of trees). Also, he wants to make distinct rows of trees (only one type of trees in one row). Find the number of minimum rows required.
<b>SECTION – D</b> [This section comprises of long answer type question (LA) of 5 marks]	
10	The area of a rectangle gets reduced by 80 square units if its length is reduced by 5 units and the breadth is increased by 2 units. If we increase the length by 10 units and decrease the breadth by 5 units, the area is increased by 50 square units. Find the length and breadth of the rectangle. <b>OR</b> Meena went to a bank to withdraw Rs 2000. She asked the cashier to give her Rs 50 and Rs 100 notes only. Meena got 25 notes in all. Find how many notes of Rs 50 and Rs 100 she received?

\*\*\*\*\*THE END\*\*\*\*\*