



INDIAN SCHOOL SOHAR
PERIODIC TEST I (2024 - 25)
MATHEMATICS

SET 1

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.

SECTION – A (Multiple Choice Questions) Each question carries 1 mark	
1.	The pair of equations $x = 0$ and $x = -6$ has A) two solutions B) no solution C) infinitely many solutions D) one solution
2.	The graph of a polynomial $P(x)$ cuts the x -axis at 2 points and touches it at 2 other points. The number of zeroes of $P(x)$ is A) 3 B) 2 C) 1 D) 4
3.	If a and b are the zeroes of the quadratic polynomial $P(x) = x^2 - (k + 6)x + 2(2k - 1)$, then the value of k , if $a + b = \frac{1}{2} ab$, is A) -7 B) 7 C) -3 D) 3
4.	What is the HCF of smallest prime and smallest composite natural number. A) 1 B) 4 C) 18 D) 2
5.	Assertion: Polynomial $y^2 - 2y - 8$ has one real zeroes. Reason: Zeroes of the polynomial $y^2 - ay$ ($a \neq 0$) 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.
SECTION – B [This section comprises of very short answer type questions (VSA) of 2 marks each]	
6.	Solve for x and y if $\sqrt{3}x - \sqrt{2}y = 0$ and $\sqrt{5}x - \sqrt{3}y = 0$ OR For which value of k will the following pair of linear equations have infinitely many solutions? $3y + 2x = 4$; $(k + 2)x + 6y = 3k + 2$

7.	Find the smallest number which when increased by 17 is exactly divisible by 520 and 468.
SECTION – C [This section comprises of short answer type questions (SA) of 3 marks each]	
8.	<p>Prove that $3\sqrt{5}$ is an irrational number.</p> <p style="text-align: center;">OR</p> <p>A garden has 48 guava trees, 60 pineapple trees and 96 mango trees. These have to be arranged in rows such that each row has same number of trees and all are of same type. Find the minimum numbers of each row that can be formed.</p>
9.	If one zero of the quadratic polynomial $P(x) = 4x^2 - 8kx + 8x - 9$ is negative of the other, then find the zeroes of $kx^2 - 5x + 6$
SECTION – D [This section comprises of long answer type question (LA) of 5 marks]	
10	<p>Meena went to a bank to withdraw Rs 5000. She asked the cashier to give her Rs 100 and Rs 500 notes only. Meena got 30 notes in all. Find how many notes of Rs 100 and Rs 500 she received?</p> <p style="text-align: center;">OR</p> <p>The students of a class are made to stand in rows. If 4 students are extra in a row, there would be 2 rows less. If 4 students are less in a row, there would be 4 more rows. Find the number of students in the class.</p>

*****THE END*****