SHAPING FUTURES, BUILDING LEGACIES

ST KABIR PUBLIC SCHOOL

SECTOR 26, CHANDIGARH, 160019

PERIODIC TEST 1 (2025-26)

Class: X
Subject: Mathematics

Duration: 40 minutes
Max. Marks: 20

General Instructions:

1. *This Question Paper has 4 Sections A-D.*
2. *Section **A** has **4** MCQs carrying **1** mark each*
3. *Section **B** has **3** questions carrying **02** marks each.*
4. *Section **C** has **2** questions carrying **03** marks each.*
5. *Section **D** has 1 case based integrated unit of assessment (**04** marks) with sub-parts of the values of **1, 1 and 2** marks respectively.*
6. *All Questions are compulsory.*
7. *Draw neat figures wherever required. Take $\pi = 22/7$ wherever required if not stated.*

SECTION – A

Q 1. HCF of two numbers is 113, and their LCM is 56952. If one number is 904, then find the other number **(1)**

(a) 7911
(b) 7119
(c) 7791
(d) 7971

Q 2. Largest number which divides 650 and 1170 is **(1)**

(a) 110
(b) 120
(c) 130
(d) 140

Q 3. The sum and the product of zeroes of a quadratic polynomial are 0 and $\sqrt{3}$ respectively. The quadratic polynomial is **(1)**

(a) $x^2 - \sqrt{3}$
(b) $x^2 + \sqrt{3}$
(c) $x^2 - 3$
(d) $x^2 + 3$

Q 4. If a pair of linear equations is consistent, then the lines will be: **(1)**

(a) parallel
(b) always consistent
(c) intersecting or coincident
(d) always intersecting

SECTION - B

Q 5. Show that the number $5\times11\times17+3\times11$ is a composite number. **(2)**

Q 6. Find the zeroes of the quadratic polynomial $p(x)=x^2+\frac{1}{6}x-2$ and verify the relationship between the zeroes and its coefficients. **(2)**

Q 7. Find the value of k for which the given pair of equations have a infinitely many solution **(2)**
$2x+3y=7$, $(k+1)x+(2k-1)y=4k+1$

SECTION - C

Q 8. Prove that $5+2\sqrt{3}$ is irrational. **(3)**

Q 9. If α and β are the zeroes of a quadratic polynomial x^2-5x+6 , then find the value of $\alpha^3+\beta^3$. **(3)**

SECTION - D

Q 10. From a shop, Sudhir bought 2 Mathematics books and 3 Physics books for Class X for ₹ 850, while Suman bought 3 Mathematics books and 2 Physics books for Class X for ₹ 900. Consider the price of one Mathematics book and that of one Physics book as ₹ x and ₹ y respectively. Based on the above information solve the following questions.

(i) Find the algebraic equation, which represents the situation faced by Sudhir? **(1)**

(ii) Find the algebraic equation, which represents the situation faced by Suman? **(1)**

(iii) Determine the cost of a Physics book and a Mathematics book. **(2)**