

**O. P. JINDAL SCHOOL, SAVITRI NAGAR**  
**Periodic Test - I (2023 – 2024)**

**Class: XI**  
**Subject: Mathematics**

**MM: 20**  
**Time: 1 Hour**

**General Instructions:**

i) All questions are compulsory.

ii) Question no. 1 to 8 carries 1 mark each, question no. 9 to 11 carries 2 marks each, question no. 12 and 13 carries 3 marks each.

iii) There is no overall choice. However, internal choice has been provided.

**SECTION A**

1. For any two sets A and B,  $(A - B) \cup (B - A) =$

- a)  $(A - B) \cup A$     b)  $(B - A) \cup A$     c)  $(A \cup B) - (B \cap A)$     d)  $(A \cup B) \cap (A \cap B)$

**OR**

If  $A \cap B = B$ , then

- a)  $A \subseteq B$     b)  $B \subseteq A$     c)  $A = \Phi$     d)  $B = \Phi$

2. If  $A = \{1, 2, 3, 4, 5\}$ , then the number of proper subset of A is

- a) 120    b) 30    c) 31    d) 32

3. If A and B are two sets in the same universal set. Then  $A - B =$

- a)  $(A \cap B)$     b)  $(A' \cap B)$     c)  $(A \cap B')$     d) none of these

4. If A and B are two disjoint sets, then  $n(A \cup B)$  is equal to

- a)  $n(A) + n(B)$     b)  $n(A) + n(B) - n(A \cap B)$     c)  $n(A) + n(B) + n(A \cap B)$     d)  $n(A) n(B)$

5. If R is a relation from on the set  $A = \{1, 2, 3, 4, 5, 6, 7, 8, 9\}$  given by  $x R y \Leftrightarrow y = 3x$ , then  $R =$

- a)  $\{(3, 1), (6, 2), (8, 2), (9, 3)\}$     b)  $\{(3, 1), (6, 2), (9, 3)\}$     c)  $\{(1, 3), (5, 2)\}$     d) none of these

6. If  $A = \{1, 2, 3\}$ ,  $B = \{1, 4, 6, 9\}$  and R is a relation from A to B defined by "x greater than y". The range of R is

- a)  $\{1, 4, 6, 9\}$     b)  $\{4, 6, 9\}$     c)  $\{1\}$     d) none of these

7. The domain of the function f given by  $f(x) = \frac{x^2 + 2x + 1}{x^2 - x - 6}$

- a)  $R - \{-2, 3\}$     b)  $R - \{-3, 2\}$     c)  $R - [-2, 3]$     d)  $R - (-2, 3)$

**OR**

The range of the function  $|x - 1|$  is

- a)  $(-\infty, 0)$     b)  $[0, \infty)$     c)  $(0, \infty)$     d) R

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## BLUE PRINT OF QUESTION PAPERS OF PERIODIC TEST 1

Class XI

Subject: Mathematics

Sl no.	CHAPTER NO. AND NAME	No. of VSA	No. of SA1	No. of SA2	Total
1.	1. Real Numbers	4(4)	2(4)	1(3)	7(11)
2.	2. Polynomials	4(4)	1(2)	1(3)	6(9)
<b>Total</b>		8(8)	3(6)	2(6)	13(20)

Abbreviations: VSA- Very Short Answer(1mark) , SA1: Short Answer1(2 marks) ,SA2: Short Answer2(3 marks)