

FORMATIVE ASSESSMENT - I (2021-22)

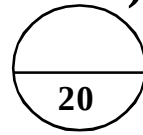
MATHEMATICS

(English Medium)

Class : X

(Max. Marks : 20)

Time : 60mins



Name of the Student : _____ Roll No. _____

I. Choose the correct answer from the given four options in the following questions.

5x1 = 5

1. $Q \cup Q^1 =$ []
(A) R (B) Z (C) W (D) N
2. Number of solutions for a linear equation in two variable is = []
(A) 0 (B) 1 (C) 2 (D) many
3. $A = \{ 1, 2, 3 \}$ then subsets of A are []
(A) 3 (B) 8 (C) 9 (D) 6
4. If $A \subset B$ then $A \cap B =$ []
(A) A (B) B (C) ϕ (D) μ
5. Sign of Empty set is []
(A) $\emptyset$ (B) μ (C) $\{ \}$ (D) A and C

II. Fill in the blanks with suitable answers

5x1 = 5

6. $A \subset B$ then $A \cap B =$ _____
7. If A and B are disjoint sets then $A \cap B =$ _____
8. Cardinal number of the empty set is _____
9. $A = \{ 1, 2, 3 \}$, $B = \emptyset$ then $A \cap B =$ _____
10. $A \cap \phi =$ _____

III. Answer the following questions.

2x3 = 6

1. Rationalise $\frac{1}{3 + \sqrt{2}}$
2. $A = \{ 1, 2, 3, 4, 5, 6 \}$ $B = \{ 1, 3, 5, 7, 9 \}$ then Find (1) $A \cup B$ (2) $A \cap B$
3. Write the following from roster form to set builder form
 $A = \{ 2, 3, 5, 7, 11, 13 \}$ $B = \{ 4, 6, 8, 10, 12 \}$

IV. Answer any one question

4x1 = 4

4. If $A = \{2, 4, 6, 8, 10\}$ $B = \{2, 3, 4, 5, 6, 7\}$ $C = \{2, 3, 5, 7, 11\}$ then find

(i) $A - B$ (ii) $B - C$ (iii) $A - (B \cap C)$ (iv) $A \cap B$

5. $A = \{x/x \text{ is a natural number}\}$, $B = \{x/x \text{ is an even number}\}$

$C = \{x/x \text{ is an odd number}\}$, $D = \{x/x \text{ is a prime number}\}$

then find the following

i) $A \cap B$ ii) $A \cap C$ iii) $B \cap C$ iv) $C \cap D$