

SLIP TEST 2

SUB: MATHEMATICS

CLASS: X

CHAPTER: RELATIONS AND FUNCTIONS

TOPIC: CARTESIAN PRODUCT and RELATIONS

I] Choose the correct answers

10x1=10

1.If the ordered pairs $(c+2,5)$ and $(-2, d-3)$ are equal then (c, d) is-----

A) $(-4,8)$ B) $(4, -8)$ C) $(0, 2)$ D) $(8, -4)$

2.If $B \times A = \{(0,1), (0,2), (1,1), (1,2)\}$ then value of A is-----

A) $(0,0)$ B) $(1,1)$ C) $(1, 2)$ D) $(0, 1)$

3.If $A = \{1, 2, m, n\}$, $B = \emptyset$ then $A \times B = \text{-----}$

A) $\{0,0\}$ B) $\{1, 2\}$ C) $\{0\}$ D) \emptyset

4. If $A = \{1\}$, $B = \{1,2\}$ then the graphical representation of $A \times B$ is a -----

A) line B) vertical line segment C) Horizontal line segment D) Polygon

5.Cartesian Product of sets are commutative when the given sets are-----

A) Equivalent B) equal C) subsets D) finite sets

6.If $n(A) = p$, $n(B) = q$ then the total number of relations that exist from A to B is-----

A) 2^p B) 2^q C) 2^{pq} D) $2^{pq} - 1$

7.If $n(A) = p$, $n(B) = q$ then the total number of non-empty relations that exist from A to B is--

A) 2^p B) 2^q C) 2^{pq} D) $2^{pq} - 1$

8.If there are 512 relations from set $A = \{1,2,3\}$ to a set B, then the number of elements in B is

A)3 B)6 C)4 D) 8

9.If $A = \{5,6,7,8\}$, $R = \{(5,3) (6,4) (7,5)\}$, $B = \{3,4,5\}$ then what is the Domain of R?

A) $\{5,6,7,8\}$ B) $\{5,6,7\}$ C) $\{3,4,5\}$ D) $\{3,4,5,6\}$

10.Relation is a subset of-----

A) Function B) Domain C) Codomain D) Cartesian product