MCQ TEST: Relation & Function

All the questions carry one mark each.   **Time: 1 Hr**

Note: Options for Q. No: 1-5 are same which are:-

    a) 1   b) 2   c) 3   d) 5

For a given set A = {1, 2, 3}

Q.1)   How many maximum number of equivalence relations possible on set A.

Q.2)   Find the number of relations containing (1, 2) and (2, 3) which are reflexive and transitive but not symmetric.

Q.3)   Find the number of equivalence relations containing (1, 2) and (2, 1).

Q.4)   Find the number of relations containing (1, 2) and (1, 3) which are reflexive and symmetric but not transitive.

Q.5)   Find the number of equivalence relations containing (1, 2).

Note: Options for Q.No. 6-14 are same which are :-

    a) 0   b) 2   c) 3   d) 6

Given a function defined from set A to set B,

Where,   **n(A) = 3   and   n(B) = 3**

Q.6)   Find the number of Injective functions.

Q.7)   Find the number of Surjective functions.

Q.8)   Find the number of Bijective functions.

If   **n(A) = 3   and   n(B) = 2**

Q.9)   Find the number of Injective functions.

Q.10)   Find the number of Surjective functions.

Q.11)   Find the number of Bijective functions.

If   **n(A) = 2   and   n(B) = 3**

Q.12)   Find the number of Injective functions.

Q.13)   Find the number of Surjective functions.

Q.14)   Find the number of Bijective functions.

Note: Options for Q.No. 15-17 are same which are:-

    a) n^2 b) n^n c) 2^n d) n!

let A = {1,2,3,4,.......n} where functions defined to itself.

Q.15)   Find the number of One-One Functions.

Q.16)   Find the number of ONTO Functions.

Q.17)   Find the number of Bijective Functions.

Note: Options for Q.No. 18-20 are same which are:-

    a) 9   b) 64   c) 8   d) 6

For n(A) = 3   n(B) = 2

Q.18)   Find the number of possible relations from A to B.

Q.19)   Find the number of possible functions from A to B.

Q.20)   Find the number of elements in AxB.