**ASSIGNMENT NO.- 6[Ch-1(Relations and Functions)]**

**Class -XII**

1. Let us define a relation in as if Then is

(a) an equivalence relation (b) reflexive , transitive but not symmetric

( c)symmetric,transitive but not reflexive (d) neither transitive nor reflexive but symmetric

2. Consider the non-empty set consisting of children in a family and a relation defined as if is

brother of .Then is:

(a) symmetric but not transitive (b) transitive but not symmetric

(c) neither symmetric nor transitive (d) both symmetric and transitive

3. The maximum number of equivalence relations on the set are

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

4. If the relation defined on the set be defined by ,then is

(a) reflexive (b) transitive (c) symmetric (d) none of these

5. Let be defined by Then is

(a) one-one (b) onto (c) bijective (d) is not defined

6. Show that the relation defined by on the set is an

equivalence relation.

7. Show that the relation in the set defined by ,if for all

is an equivalence relation.

8. Show that the function defined by for all ,is neither one-one nor onto.

9. Let Let be defined by for all Then,show that

is bijective.

10. If defined by Find

11. If ,write

12. Prove that is a bijective function.