

## CLASS: XII Relations and Functions

## Answer the following:

## 1. Show that the relation R on R defined as is neither reflexive nor symmetric nor transitive.

## 2. Show that the function defined by is one – one and onto function. Hence find .

## 3. Let be a function defined as . Show that is invertible. Find the inverse of ‘f’.

## 4. Consider given by . Show that is invertible with .

## 5. Consider the function given by . Prove that f is invertible with .

## 6. Let be a function defined as . Show that is one-one and onto. Hence find .

## 7. Let N denote the set of all natural numbers and R be the relation on NxN defined by

## ( a,b)R(c,d). Check whether R is an equivalence relation on NxN.

## 8. Show that the function defined by f(n) = n+1, if n is even, f(n) = n – 1 , if n is odd. Show that f is a bijection.