

08/09/XX Class-XI<sup>sc</sup> (MATHS)

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Topic :- function :-

1) Examine each of the following relations given below and state in each case, giving reason whether it is a function or not?

~~Q11~~ (i)  $R = \{(2,1), (3,1), (4,2)\}$

(ii)  $R = \{(2,2), (2,4), (3,3), (4,4)\}$

(iii)  $R = \{(1,2), (2,3), (3,4), (4,5), (5,6), (6,7)\}$

Ans (i) It is a function because 2, 3 and 4 has unique image, this relation  $R$  is a function.

(ii) Since the same first element '2' has two different image 2 and 4. So it is not a function.

(iii) Since here every element has unique image. So it is a function.

⇒ Real Valued function :-

A function  $f$  is said to be a real valued function if domain and co-domain are either the set of real no. or its subset is called Real valued function.

Some functions and its graph :-

- (i) Identity function
- (ii) Constant function
- (iii) Polynomial function
- (iv) Rational function
- (v) Modulus function
- (vi) Signum function
- (vii) Greatest integer function
- (viii) Smallest integer function