XI – Assignment No. 6 – Relations and Functions

D – graphs of Functions

Draw the graphs of the following functions:

1. Identity Function

$$f: R \to R : f(x) = x, \quad x \in R$$

2. Constant Function.

$$f: R \to R : f(x) = 5 \text{ (Any Constant)}, \quad x \in R$$

3. Polynomial Function

$$f: R \to R : f(x) = x^2, \quad x \in R$$

4. Rational Function

$$f: R \to R : f(x) = \frac{1}{x}, \quad x \in R$$

5. Modulus Function

$$f: R \to R : f(x) = |x|, \quad x \in R$$

6. Signum Function

$$f: R \to R : f(x) = \begin{cases} 1 & \text{if } x > 0 \\ 0 & \text{if } x = 0 \\ -1 & \text{if } x < 0 \end{cases}$$
$$x \in R$$

7. Greatest Integer Function

$$f: R \to R : f(x) = [x], \quad x \in R$$