



**D.A.V. PUBLIC SCHOOL, CRRC, Medical Road, Gaya**  
**Sunday Test (Date -17-11-2024)**

**Class -XI**  
**Sub. - Appl. Maths**

**Time: 40 Min**  
**F.M.- 20**

**Section: - A (2 x 5 = 10)**

- 1) If  $f(x) = x^2$ , find the value of  $\frac{f(5)-f(1)}{5-1}$ .
- 2) If  $f(x) = x^3 - 3x + 4$  and  $f(x) = f(2x + 1)$  find the value of  $x$ .
- 3) Find the domain of  $f(x) = \frac{x^2-x+1}{x^2-5x+4}$ .
- 4) Find the range of  $f(x) = 2 - 3x$ ,  $x \in \mathbb{R}$ ,  $x > 0$ .
- 5) Define modulus function and draw its graph.

**Section: - B (5 x 2 = 10)**

- 6) Find the domain and range of  $f(x) = \sqrt{9 - x^2}$ .
- 7) Find the domain and range of the function  $f(x) = \frac{x-2}{x-3}$ .

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