



**D.A.V. PUBLIC SCHOOL, CRRC, Medical Road, Gaya**  
**Sunday Test (Date –01-09-2024)**

**Class –XII**

**Time: 40 Min**

**Sub. –Maths**

**F.M.- 20**

**Section - A (2 × 5 = 10 Marks)**

1. Find  $\int \frac{1}{1-\tan x} dx$ .
2. Find  $\int \frac{5x+3}{\sqrt{x^2+4x+10}} dx$ .
3. Evaluate  $\int_1^4 [ |x-2| + |x-3| ] dx$ .
4. Find  $\int_0^{\frac{\pi}{4}} \log(1 + \tan x) dx$ .
5. Find  $\int e^{2x} \sin x dx$ .

**Section - B (5 × 2 = 10 Marks)**

6. Find  $\int \frac{x}{(x^2+1)(x-1)} dx$ .
7. Evaluate  $\int_0^{\frac{\pi}{4}} \frac{\sin x + \cos x}{9+16\sin 2x} dx$ .