

**PRESIDENT'S OFFICE
REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT
HAI DISTRICT COUNCIL
SHILELA SECONDARY SCHOOL**



**FORM FIVE - MONTHLY TEST
BASIC APPLIED MATHEMATICS**

TIME:- 2:00 HOURS

6Th, February 2026

INSTRUCTIONS:-

*Answer All Questions

1. (a) Define the term integration.
(b) With example, write the types of integration.
(c) In the formula $\int x^n dx = \frac{x^{n+1}}{n+1} + c$, explain the meaning of c.

2. (a) Find $\int \frac{1}{\sqrt{x^3}} dx$
(b) Evaluate $\int_0^1 \frac{1}{(x+1)^2} dx$

3. (a) Find $\int \cos x e^{\sin x} dx$
(b) Evaluate $\int_{-1}^0 3^x dx$

4. (a) Show that $\int \tan x dx = \ln \sec x + c$
(b) Evaluate $\int_1^2 \frac{1}{2x+1} dx$

5. (a) Find $\int (2x+2)2^{(x^2+2x+1)} dx$
(b) Evaluate $\int_0^{\pi} \sec(2x+1)\tan(2x+1) dx$

*****END*****