Reg. No | | | | | | | | | | |

AY 25

GANDHI INSTITUTE OF ENGINEERING AND TECHNOLOGY UNIVERSITY, ODISHA, GUNUPUR

(GIET UNIVERSITY)

B. Pharm. (First Semester - Regular) Examinations, February – 2026

BP106RMT - REMEDIAL MATHEMATICS

Time: 1.5 hrs | Maximum: 35 Marks

Answer ALL questions

(The figures in the right hand margin indicate marks)

PART – A (1 x 10 = 10 Marks)

Q.No. 1. Answer ***ANY ONE*** questions (Long Answer Question)

a. Solve the partial fraction $\frac{x^2-5}{(x-2)(x^2-9)}$

b. Find the inverse of the matrix $A = \begin{pmatrix} 2 & 5 & 3 \\ 7 & 4 & 6 \\ 4 & 3 & 8 \end{pmatrix}$

PART – C (5 x 5 = 25 Marks)

Q. No.2. Answer ***ANY FIVE*** questions (Short Answer Question)

a. If $f(x) = \log\left(\frac{1+x}{1-x}\right)$, show that $f(x) + f(y) = f\left(\frac{x+y}{1+xy}\right)$

b. Solve $\lim_{x \to 0} \frac{(x+2)^5 - 2^5}{(x+2)^8 - 2^8}$

c. Solve the linear equation by Cramer's Method

$$2x + 3y - 2z = 6$$
$$5x - 3y + 4z = 12$$
$$x + y + 2z = 8$$

d. Find the derivative of $f(x) = x^n$ by using first principle method

e. Find the maximum and minimum value of the function $f(x) = 12x^5 - 45x^4 + 40x^3 + 6$

f. Find the value of y', y'', y''', of the function $y = x^5 sinx$

g. Evaluate the $\int e^x cosx dx$

h. Solve the $\int \frac{5x+2}{(x-1)(x-2)} dx$

i. Solve $\frac{dy}{dx} - x^2 e^x y = 0$

--- End of Paper ---