SHRI RAMSWAROOP MEMORIAL UNIVERSITY

End Semester Examination (2021-22)-Odd Semester

B.Pharma – I Year (I Sem)	
Course Name: Remedial Mathematics	**Code: BP106RMT**
Time: 1 ½ Hours	**Max Marks: 35**

University Roll No.															
(To be filled by the Student)															

Note: Please read instructions carefully:

a) The question paper has 03 sections and it is compulsory to attempt all sections.

b) All questions of Section A are compulsory; questions in Section B and C contain choice.

Section A: Short Answer Type Questions **Attempt any 05 out of 07 questions.**		**BL**	**CLO**	**Marks (25)**
1.	If $f(x) = x^2 + 5x - 14$, find $f(1), f(-1), f(0)$, and $f(2)$.	BL3	CLO2	05
2.	Define singular matrix with example.	BL2	CLO1	05
3.	Form matrix $A = [a_{ij}]$; $1 \le i \le 2, 1 \le j \le 3$ where $a_{ij} = \frac{(1-j)^2}{4}$	BL3	CLO2	05
4.	For the matrices A= $\begin{bmatrix} -2 & 1 \\ 3 & 0 \\ 1 & 5 \end{bmatrix}$, B= $\begin{bmatrix} 1 & 1 & -2 \\ 4 & 0 & -5 \end{bmatrix}$. Find AB	BL3	CLO2	05
5.	Find $L(\cos 5t)$	BL3	CLO2	05
6.	Find the derivative of the function given by $f(x) = (5x - 3)^2$	BL3	CLO2	05
7.	Integrate $\int (x + \frac{1}{x})^2 dx$	BL3	CLO2	05
Section B: Long Answer Type Questions **Attempt any 01 out of 02 questions.**		**BL**	**CLO**	**Marks (10)**
1.	Using matrices, solve the following system of linear equation $3x + 4y = 5$ $x - y = -3$	BL3	CLO2	10
2.	Solve $\frac{dy}{dx} + \frac{1}{x}y = x^3 - 3$	BL3	CLO2	10
