

Roll No.: _____

Enrolment No. _____

PARUL UNIVERSITY
SCHOOL OF PHARMACY

B.PHARM FIRST SEMESTER · FIRST INTERNAL EXAMINATION: 2021-22

Subject Name: Remedial Mathematics

Subject Code: BP 106RMT

Time: 9:30-11:00 am

Date: 11/12/2021

Total Marks: 30

Instructions:

1. Figures to the right indicate full marks,
2. Make suitable assumptions wherever necessary.

Q.1 Long Answers: (Any One)

- (1) Find the minor and cofactor of elements of the determinant 10
- $$\begin{vmatrix} 2 & 1 & 5 \\ 4 & 3 & 6 \\ 1 & 2 & 3 \end{vmatrix}$$
- (2) Write Division and Multiplication rules of derivative . also 10
Find $\frac{dy}{dx}$ for $y = \frac{1+\sin x}{1-\sin x}$

Q.2 Short Answers: (Any Four)

- (1) Solve the following by using Cramer's rule. 05
 $3x - 2y = 1, x + 2y = 3$
- (2) If $y = x^{\cos x}$, then find $\frac{dy}{dx}$. 05
- (3) If $y = e^{2x}$, then find $\frac{dy}{dx}$, $\frac{d^2y}{dx^2}$ and $\frac{d^3y}{dx^3}$. 05
- (4) If $y = 5^x \sin x + 3x^2 + 4x + 2$, then find $\frac{dy}{dx}$. 05
- (5) If $y = (9x + 11)^3$, then find $\frac{dy}{dx}$. 05
