Roll No.: _____ Enrolment No._____

PARUL UNIVERSITY

SCHOOL OF PHARMACY

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

Subject Name: Remedial Mathematics
Subject Code: BP 106RMT **Date: 22/01/2022**
Time: 10:00 to 11:15 am **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) Write the formula to find A^{-1} and find the inverse of the matrix $A = \begin{bmatrix} 1 & 2 & 1 \\ 2 & 4 & 0 \\ 1 & 3 & 2 \end{bmatrix}$ 10

(2) Find Minors and Cofactors of elements of the determinant $\begin{vmatrix} 3 & 1 & 0 \\ 4 & -1 & 5 \\ 7 & 2 & 3 \end{vmatrix}$ 10

Q.2 Short Answers: (Any Four)

(1) Find the distance between the points $A(3,7)$ and $B(6,5)$. 05

(2) If $A = \begin{bmatrix} 1 & 4 \\ 7 & 9 \end{bmatrix}$ and $B = \begin{bmatrix} 5 & 6 \\ 2 & 3 \end{bmatrix}$ then find (i) $A + 2B$ and (ii) $2A - B$. 05

(3) Prove that the lines $3x + 5y + 7 = 0$ and $5x - 3y + 11 = 0$ are perpendicular to each other. 05

(4) A line passes through the points (4,2) and (6,8) then find its slope. 05

(5) Do as Directed : 05

(a) If $A = \begin{vmatrix} 0 & 0 & 0 \\ 1 & 5 & 8 \\ 0 & 0 & 0 \end{vmatrix}$ then $|A| =$ _____

(b) If Matrix $A = \begin{bmatrix} 2 & -1 \\ 0 & 5 \\ 3 & 9 \end{bmatrix}$ then $A^T =$ _____

(c) Find the adjoint of the matrix $A = \begin{bmatrix} 2 & 4 \\ -1 & 0 \end{bmatrix}$.

(d) Write an Identity matrix of order 2.

(e) If all the elements of the given matrix are zero then that matrix is called _____ Matrix.

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