

## LAFDS Session 3 Homework

Full Name: \_\_\_\_\_

Group No.: \_\_\_\_\_

Please write down all the steps not the final answer only

1. (5 points) Find the determinant of the matrix M :

$$M = \begin{pmatrix} 17 & -11 \\ 6 & -3 \end{pmatrix} \quad M = \begin{pmatrix} 1 & 1 & 2 \\ 2 & 3 & 1 \\ 3 & 4 & -5 \end{pmatrix}$$

2. (5 points) Find the inverse matrix  $A^{-1}$  to the matrix A :

$$A = \begin{pmatrix} -3 & -2 \\ 3 & 3 \end{pmatrix} \quad A = \begin{pmatrix} 1 & 0 & 1 \\ 0 & 1 & 1 \\ 1 & 1 & 1 \end{pmatrix}$$

3. (5 points) Find the rank of the matrix M

$$M = \begin{pmatrix} 3 & 1 & 0 & -1 \\ 2 & 4 & 3 & 2 \end{pmatrix} \quad M = \begin{pmatrix} 5 & 2 & 3 \\ 7 & 2 & 2 \\ 9 & -1 & 1 \end{pmatrix}$$