DEPARTMENT OF MATHEMATICS

Bennett University

Linear Algebra and Ordinary Differential Equations
(EMAT102L)

Batch: GR-1
April 7, 2021

Time: 15 minute | *Quiz 1* | Maximum Marks: 5

1. The value of λ for which the matrix $\begin{pmatrix} 0 & 1 & -2 \\ -1 & 0 & 3 \\ \lambda & -3 & 0 \end{pmatrix}$ is singular

   Answer: 2 [1]

2. The matrix $\begin{pmatrix} 1 & 2 & 1 \\ 1 & -1 & 1 \\ 3 & -1 & 2 \end{pmatrix}$ is invertible

   Answer: True [1]

3. If A is a square matrix then trace of $5A$ is

   Answer: 5 trace of A [1]

4. Rank of the matrix $\begin{pmatrix} 4 & -2 & 6 \\ -2 & 1 & -3 \end{pmatrix}$ is

   Answer: 1 [1]

5. For the matrix $\begin{pmatrix} 1 & 2 & 1 \\ 1 & -1 & 1 \\ 2 & 3 & -1 \end{pmatrix}$, the co-factor of an element 3 whose position is third row and second column is

   Answer: 0 [1]

Teacher's name: Dr. Najnin Islam | End of exam