

Assignment 2 (15 mks)

❖ **Attempt all the Questions.**

❖ **Avoid plagiarizing.**

- 1) Give one homogenous system in \mathbb{R}^2 with a unique solution (3 mks)
- 2) Give one homogenous system in \mathbb{R}^2 with many solutions (3 mks)
- 3) Give one homogenous system in \mathbb{R}^2 with no solution (3 mks)
- 4) Verify with an example in \mathbb{R}^2 that the inverse of a symmetric matrix is also symmetric (3 mks)
- 5) Verify with an example in \mathbb{R}^4 that the transpose of an upper triangular matrix is a lower triangular matrix (3 mks).