Quiz: MA220 (Numerical Linear Algebra)
Time: 15 Minutes Maximum Marks: 10

Roll No.: **Name:**

Determine if the following statement is true (T) or false (F). **Just circle T or F.** No need to show any calculation.

T (F) Let A be arbitrary square matrix. Then A has orthogonal eigenvectors.

T (F) Let A be arbitrary square matrix. Then all eigenvalues of A are real.

(T) F Let $A \in \mathbb{R}^{n\times n}$ be a SPD matrix. Then SD converges to the solution of $Ax = b$, for any $b \in \mathbb{R}^n$.

(T) F Let $A \in \mathbb{R}^{n\times n}$ be a SPD matrix. Then MR converges to the solution of $Ax = b$, for any $b \in \mathbb{R}^n$.

T (F) Let $A \in \mathbb{R}^{n\times n}$ be an invertible matrix. Then CG converges to the solution of $Ax = b$, for any $b \in \mathbb{R}^n$.

T (F) Choleski method works for any invertible matrix.

(T) F PLU method works for any invertible matrix.

T (F) LU method works for any invertible matrix.

(T) F QR iterative method finds eigenvalues for any square symmetric matrix.

(T) (F) Power method finds dominant eigenvalue for any square symmetric matrix.
