

### **Quiz-12**

Q.1 Let A is an  $m \times n$  matrix. Then the column space C (A) is a subspace of \_\_\_\_\_.

- (A)  $\mathbb{R}^n$       (B)  $\mathbb{R}^m$       (C)  $\mathbb{R}^{mn}$       (D) None of these

Q.2 A nonempty set V is said to be a vector space if it satisfies\_\_\_\_\_.

- (A) Vector addition (B) Scalar multiplication (C) Both A and B (D) None of these

Q.3 Every vector space is the largest subspace of itself.

- A. True    B. False    C. Partially True    D. None of these

Q.4 Whether the 1st quadrant of  $\mathbb{R}^2$  is a subspace or not?

- A. Yes    B. No    C. partly yes    D. None of these

Q.5 If A is a 2nd order zero matrix, then C (A) is \_\_\_\_\_.

- (A) Any line passing through origin of  $\mathbb{R}^2$  (B)  $\mathbb{R}^2$  itself (C) Origin of  $\mathbb{R}^2$  (D) None of these

Q.6 Let A is an  $m \times n$  matrix. Then the null space N (A) is a subspace of -----.

- A.  $\mathbb{R}^n$       B.  $\mathbb{R}^m$       C.  $\mathbb{R}^{mn}$       D.  $\mathbb{R}^{m+n}$

Q.7 Let  $A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}$ , then N(A) is \_\_\_\_\_.

- A. Any line passing through origin of  $\mathbb{R}^2$     B.  $\mathbb{R}^2$  itself    C. Origin of  $\mathbb{R}^2$     D. None of these