Assignment Test-3

Q.1 The plane $x+2y-3z-t=0$ in R^4 is the null space of the matrix _____.

A. [1 2 -3 -1] B. [-1 -2 3 1] C. [2 -3 -1] D. None of these

Q.2 The vectors $V_1=w_2-w_3$, $V_2=w_1-w_3$ and $V_3=w_1-w_2$ are LD as _____.

A. $2V_1-V_2-3V_3=0$ B. $V_1+V_2-3V_3=0$ C. $V_1-V_2+V_3=0$ D. None of these

Q.3 The set of n vectors in R^m must be LD if _____.

A. $n<m$ B. $n\leq m$ C. $n\geq m$ D. $n>m$

Q.4 A set of vectors are linearly independent if _____.

A. rank=number of vectors B. rank>number of vectors

C. rank<number of vectors D. None of these

Q.5 The left nullspace of a matrix A of order m×n contains all vector x such that ------.

A. $A^Tx=0$ B. $Ax=0$ C. Both A and B D. None of these

Q.6 If A is a zero matrix of order n, then_____.

A. C (A^T) = origin of R^n B. C (A^T) = origin of R^m C. C (A^T) =R^n D. None of these

Q.7 If A is an m×n matrix with rank r, then _____.

A. dimN(A)=n B. dimN(A)=r C. dimN(A)=n-r D. dimN(A)=m-r

Q.8 The right inverse of a matrix A exists if the matrix A is a _____.

A. full row rank matrix B. full column rank matrix

C. Both A and B D. None of these

Q.9 If A= $\begin{bmatrix} 1 & 2 & 3 & 4 \\ 1 & 1 & 1 & 1 \\ 1 & 1 & 1 & 1 \end{bmatrix}$, then the basis of C(A) is _____.

(A) {(1,1,1), (2,1,1)} (B) {(2,1,1), (3,1,1)} (C) {(2,1,1),(4,1,1)} (D){(3,1,1),(4,1,1)}

Q.10 If A= $\begin{bmatrix} 1 & 2 & 3 \\ 2 & 3 & 4 \end{bmatrix}$, then the basis of C($A^T$) contains _____ no. of elements.

A.0 B.1 C.2 D.3

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