



Department of Software Engineering
Daffodil International University
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Student ID: Section: Department: Quiz:
Course Code: Course Title: Date:

Answer the following questions: Total Marks: 15
Time: 40 Minutes

1.	Given the following two matrices: $A = \begin{bmatrix} 1 & 7 & -2 \\ 3 & 0 & 4 \\ -1 & 5 & 2 \end{bmatrix}$, $B = \begin{bmatrix} 2 & 1 & 0 \\ 1 & -1 & 3 \end{bmatrix}$. Determine whether the multiplications AB and BA are mathematically possible by analyzing their dimensions. For the combination that is possible, compute the resulting matrix.	5
2.	Find the inverse of the matrix C using the Cofactors method. You must show the cofactor matrix and the determinant in your steps. $C = [-1, 2, 0; 3, -4, 0; 0, 1, 1]$.	5
3.	Determine the rank of matrix D by reducing it to its Row Echelon Form (REF). $D = [1, -1, 2, 1; 2, 1, -1, 3; 3, 0, 1, 4; 0, -3, 5, -1]$.	5

Start writing from here