|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **National University of Computer and Emerging Sciences, Lahore Campus** | | | | |
| C:\Users\saif\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.Word\final design.jpg | **Course:** | **PF Lab** | **Course Code:** | **CL 118** |
| **Program:** | **BS (Computer Science)** | **Semester:** | **Spring2018** |
| **Duration:** | **25 Minutes** | **Total Marks:** | **10** |
| **Paper Date:** | **29-Nov-18** | **Weight** | **5 %** |
| **Section:** | **A** | **Page(s):** | **1** |
| **Exam:** | **Quiz 2** | **Reg. No.** |  |
| **Instruction/Notes:** | Honesty always gives fruit and Dishonesty is always harmful. | | | |

# Question#1: Symmetric matrix is a square matrix which is equal to its transpose. A symmetric matrix is always a square matrix. Check for square matrix. Symmetric matrix A is defined as A=At [10]

Write a function which returns **true** if the A matrix is symmetric and **false** otherwise. **Call the function in the main() and print appropriate message about the symmetry of the matrix using return type of the function** isSymmetric**.**

//start writing code here

bool isSymmetric(int mat[][MAX], int N)

{

    int tr[N][MAX];

    transpose(mat, tr, N);

    for (int i = 0; i < N; i++)

        for (int j = 0; j < N; j++)

            if (mat[i][j] != tr[i][j])

                return false;

    return true;

}