**CSE115L  
Final**Marks: 25 Sec: 11 Time: 50 min (with upload)

1. Write a program to print the 2nd largest number from an **n\*n** matrix. 7
2. Write a recursive function **int sumDigit(int n)** to calculate the sum of the digits of a given number. 6  
   sumDigit(126) → 9  
   sumDigit(49) → 13  
   sumDigit(12) → 3
3. Create a structure named Students with the following components and appropriate data types: Name, Id, Department, CGPA, Gender. 12

a. Create an Array of Students of size 6 and take the inputs (from console/user) to fill the array and write it in a text file called **Student.txt**

b. Now write a function which will print the list of students with CGPA more than **3.25**

c. Write a function which will read the **student.txt** file and create two new text file, one for male students, and another for female students.

**Students.txt**  
Khalil Gibran 1621062 ECE 3.60 M  
Sylvia Plath 1821045 ENV 3.75 F  
Charles Bukowski 1721082 ENG 2.42 M  
Allen Ginsberg 1521022 BBA 2.75 M  
Rabia Balkhi 1731011 ECO 3.95 F

**Male\_students.txt**Khalil Gibran 1621062 ECE 3.60 M  
Charles Bukowski 1721082 ENG 2.42 M  
Allen Ginsberg 1521022 BBA 2.75 M

**Female\_students.txt**Sylvia Plath 1821045 ENV 3.75 F  
Rabia Balkhi 1731011 ECO 3.95 F