North South University

Department of Electrical and Computer Engineering
CSE 115L: Programming language I
Time: 12 hours 29minutes
FINAL EXAM
Marks: 50

Instructions:
i. Submit five .C file(without zip/rar)
ii. Submit Screenshot/text file of output.
iii. Write your name, id, serial using comments in each C file.
iv. Write reference links using comments if you take anything from the internet.

1. Take ten integer numbers **from user input**.Now write all numbers in a text file.Then read all numbers and store in an array.Find **nth** position fabonacci numbers using that array in a **recursive** way.
Note:Consider all values in the array as a nth position of fibonacci series.So you will get 10 numbers from the fibonacci series as a output. **(10)**

2. Create a Structure with name,id,hometown,faculty,courseName,courseCode facultyName,section,credits. **(10)**

Write a program to take your full name, id, HomeTown, All Courses names and course codes of fall20, All faculties names of fall20, All sections of fall 20, All credits of fall20 courses **from user input using that structure**. Then write all information **in a text file.**
Note:
i) Must Follow sample output format
ii) Use your real info

Sample Output:
Name: Nur Hossain Id: 1530254 Homwtown: Feni
Fall'20 Courses:

Code	Name	Credit	Section	Faculty
CSE115	Programming Language I	3	11	TNS1
CSE215	Programming Language II	3	12	SAK1
CSE173	Discrete Mathematics	3	13	MSK1

3. Write a user-defined function **inputData** to take 15 students' names and total marks from **user input using a structure**. Write students names here in a text file named **names.tx**t and **pass total marks to OddCal and evenCal functions from this function.**

Write a function **oddCal** to calculate odd numbers and store them in an array. Return the result to the **inputData** function and also write the results in **odd.txt.**

Write another function **evenCal** to calculate even Numbers and store them in an array.Return the result to the **inputData** function and also write the results in **even.txt.**

Also Print the evenSum and oddSum from the main function in Console Screen using return value of inputData function.   (10)

4. Given marks of five students: (20)

	CSE115	CSE215	CSE173	CSE373	CSE473
SAKIB	14	54	36	12	32
MUSHFIQ	58	58	55	45	11
MUSTAFIZ	74	77	52	78	20
TAMIM	44	77	55	44	21
MASHRAFEE	52	45	88	44	11

Declare a 2D array using Students marks and two String array using names,subjects in the main function.

Now create a function named **specificSubject** which will calculate Total average marks of Three specific subjects **according to teacher input(1 to 5)**.
For example,If teacher Enter 1 it will calculate average marks of CSE115 course.
Store marks in an Array and print average marks with subject name.

void specificSubject(int marks[5][5],char subjectName[5][50])

Create another function named **specificStudent** which will calculate Three Specific students marks according to teacher input.
For Example,If teacher Enter "**SAKIB**" it will calculate the total marks of SAKIB.Store marks in an Array and print three students mark with their names.

void specificStudent (char studentName[5][50],int marks[5][5])

Hint: Use string compare method to compare teacher inputs.

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