**Department of Computer Science**

**CSC215 – Procedural Programming**

**Lab Exam Version (B)**

**The structure 'Student' contains the following data members:**

* **ID:** an integer.
* **fullName:** a structure that has the following data members(char first\_name[20]; char last\_name[20];).
* **major:** a char to declare the student major (c: computer science, m: math, e: engineering) .
* **GPA:** a double.
* **fullTime:** an integer: indicates whether the student is full time (1) or part time (0).

1. Write the following program:

// include the required headers.

// define the student structure as described above.

/\* write a function called **readStudent** that **creates** a structure of the type student and read from the user all the data members (ID, fullName, major, GPA and fullTime) for this student. The function then returns the structure\*/

/\* write a function called **printStudent** that **takes** a structure of the type student and prints all the data members (ID, fullName, major, GPA and fullTime)  for this student \*/

/\* write a function called **writeCStudents** that takes an array of the student type writes the full name of the students that are computer science major into a file called “cs.txt” \*/

// write the main function as follows:

// Ask the user for a number of students

// read this number

// declare a new array of students with the size that the user entered.

// ask the user to enter the information for each student and read them to the array students

// print all students’ information

// Save the cs students into a file.

2. Compile and run your program.

3. Put all the files into a labtest.zip and email it to your lab instructor  [akalshememry@ksu.edu.sa](mailto:akalshememry@ksu.edu.sa) and the subject of your email should be as follows ( CSC215, Lab Exam,  Section: “your section number” ).