

## Lab assignment- 2

### Structures and Unions

**Format to save the files:**

**Ex. S301\_LA1\_P1.c** for Source code files

**S3301\_LA1\_P1.png** for Snapshots

**<Branch code><3-digit reg no>\_Assign\_2.zip** for zip file of all the programs under lab assignment (LA2)    Eg: **ME121\_Assign\_2.zip**

**Submission date: on or before 5th June, 2020**

Q1. Write a C program to compare a structure and a structure with bit fields. The program should demonstrate the advantages of one over the other.

Q2. Write a C program to store student and his course information using structures.

Student (student\_id, first name, last name, course\_id)

Course (course\_id, name, credits)

Here, student\_id is primary key of Student and course\_id is primary key of Course.

Important note:

- No two students can have same student\_id and it cannot be left empty
- Each record in Course should have unique course\_id (cannot be empty) and name.
- Student should register for atleast 2 courses and each course can have maximum 3 students.
- The update operation should allow to change student and course details.

The program should demonstrate the following operations on 2 students: Insert, Display, Update

Q3. Program to accept 5 people's name, address and telephone number and to search for the information of a particular person.

- Based on name
- Based on telephone number

Q4. Store the item number, item name, unit price and quantity in stock of N items in a supermarket. Display the following list of items present in the stock.

- List of items with a unit price greater than Rs 129.
- List of items with quantity in stock less than 5.

Q5. Write a C program to compare structure and union variables.