

**Jaypee University of Engineering and Technology, Guna**  
**Department of Computer Science and Engineering**  
**Object Oriented Programming Lab (14B17CI371)**

**Lab Exercise-2**

Date: 26<sup>th</sup> July 2016

---

**[Imp Note:** All the programs must be written in C/C++ with distinguished variable names. If any kind of plagiarism is observed, the punctuality marks (10) will be awarded by zero.]

1. Write a Menu Driven Program to Read List of Student names and perform the following operations using array of character pointers.

(A) To insert a Student name

(B) To delete a name

(C) To print the names

2. Write a function that returns the minimum and the maximum value in an array of integers. Inputs to the function are the array of integers, an integer variable containing the length of the array and pointers to integer variables that will contain the minimum and the maximum values. The function prototype is:

**void minmax( int array[], int length, int \* min, int \* max);**

3. Create a structure to specify data on students given below:

**Roll number, Name, Department, Year of joining**

Assume that there are not more than 30 students in the collage. There are only 3 Departments each of max intake 4 students. Max student in one year can be 10.

(a) Write a function to input details of all students who joined in a particular year Department wise.

(b) Write a function to print names of all students who joined in a particular year.

(c) Write a function to print the data of a student whose roll number is given.

4. Write a program that compares two given dates. To store date use structure say date that contains three members namely date, month and year. If the dates are equal then display message as "Equal" otherwise "Unequal".
5. An automobile company has serial number for engine parts starting from AA0 to FF9. The other characteristics of parts to be specified in a structure are: Year of manufacture, material and quantity manufactured.
  - (a) Specify a structure to store information corresponding to a part.
  - (b) Write a program to retrieve information on parts with serial numbers between BB1 and CC6.