Lab Test-I

Monday (1-3 pm)

Max Marks: 20 **Time: 50 min**

ODD SET: Students with odd machine number

Q1. [10M] Define a class to represent a University storing Name of the Student, Course Enrolled, Fees deposited and Total marks Scored.
a) Create member functions to input details of student and to display name of students promoted to next semester (Student need to score minimum of 500 marks out of 1000 to pass in a semester).
b) Overload '<' operator to compare students on the basis of their marks.

Q2. [10 M] Create a class called Engineer with default constructor. The data members of the Engineer is name and skills. Create another class called Company that will inherit the Engineer class with default constructor. The data members of the Company class are annual salary and the number of year experience and member function is void display(string name, string skills, double salary, int year).
Create a main method where salaries of two engineers are compared and display function is called to print the details of Engineers with highest salary. Also show that base class constructor is invoked as soon as object of inherited class is created. Your class should have the necessary constructor to initialize the variable and the methods available.

EVEN SET: Students with even machine number

Q1. [10M] Define a class to represent a Garage storing Model number of car, manufacturing date, OwnerName, Fault.
a) Create member functions to input details of car and to display list of cars whose registration has expired (Registration of car expires after 15 years of its manufacturing).
b) Overload '<' operator to compare cars on the basis of manufacturing date. (latest or old)

Q2. [10M] Create a class called Person with default constructor and following members methods
The data members of the Person is name. Create another class called Employee that will inherit the Person class with default constructor. The data members of the Employee class are annual salary and the year the employee started to work and member function is void display(string name, double salary, int year)
Create a main method where salaries of two employees are compared and display function is called to print the details of employee with highest salary. Also show that base class constructor is invoked as soon as object of inherited class is created. Your class should have the necessary constructor to initialize the variable and the methods available.