

Code No: A10508

# MLR INSTITUTE OF TECHNOLOGY

(An Autonomous Institution)

II B.Tech I Semester Regular Examinations- December-2016

## OBJECT ORIENTED PROGRAMMING USING C++ (CSE)

Time: 3 hours

Max. Marks: 75

- Note: 1. This question paper contains two parts A and B  
 2. Part A is compulsory which carries 25 marks .Answer all Questions in part A.  
 3. Part B consists of 5 units. Answer any one full question from each unit. Each question carries 10 Marks and may have a, b,c sub questions.

### PART-A

1. a) Give the rules of naming variables in C++ [2M]  
 b) Describe the importance of a destructor. [2M]  
 c) How can we implement data hiding [2M]  
 d) What is the use of this pointer [2M]  
 e) What is STL? [2M]
2. a) What are the applications of void data type in C++ [3M]  
 b) Is it mandatory to use a constructor in a class. Why? [3M]  
 c) Why is it necessary to overload an operator [3M]  
 d) How do the I/O facilities in C++ differ from that in C? [3M]  
 e) Give the various stream classes for console I/O operations. [3M]

### PART-B

3. a) Discuss operators in detail. [5M]  
 b) Write a Program to find inverse of a matrix. [5M]
- OR**
4. a) Discuss the basic data types available in C++ [5M]  
 b) Write a C++ Program to find largest and smallest elements in given list of integers. [5M]
  5. a) Write a C++ program to implement Friend functions. [5M]  
 b) What is dynamic initialization of objects? Whyd do we need to do this? [5M]
- OR**
6. a) Explain the following [5M]  
     (i) Inline Function  
     (ii) Static member function  
 b) Write a C++ program to implement passing object to functions. [5M]
  7. a) Write a C++ program to implement matrix operations by overloading arithmetic (+, -, \*) operators. [5M]  
 b) What is the benefit of Inheritance? Illustrate through examples. [5M]
- OR**
8. a) Explain operator overloading using a friend function. [5M]  
 b) What are virtual Base classes? Explain their existence with an example. [5M]

9. a) Write C++ program which reads a text from key code and displays number of lines, words and characters on screen in three columns. [5M]  
b) What is the basic difference between manipulators and **ios** member functions in implementations? Give examples. [5M]

**OR**

10. a) When do we make a virtual function “pure”? What are the implications of making a function a pure virtual function. [5M]  
b) Write in brief about **set()** function giving its syntax with example program. [5M]

11. a) Write a program to implement exceptions. [5M]  
b) Explain what is wrong with the below fragment and correct it. [5M]

```
Try {  
    //...  
    Throw 'a';  
    //...  
}  
Catch (char *) {  
    //...  
}
```

**OR**

12. a) Explain the following: [5M]  
    (i) Catching the exception  
    (ii) Rethrowing an exception  
    (iii) Multiple catch statements  
b) Explain the basic operations performed on files. [5M]