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**M TECH
(SEM-II) THEORY EXAMINATION 2017-18
OBJECT ORIENTED PROGRAMMING**

*Time: 3 Hours**Total Marks: 100***Note:** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A****1. Attempt all questions in brief. 2 x 10 = 20**

- a. State the characteristics of procedural Languages?
- b. What is the difference between Public and Private Protection?
- c. Define copy constructor
- d. Write the difference between Interface and Abstract class
- e. With respect to C++ distinguish 'Object' from 'Classes'
- f. What is template function?
- g. What is the purpose of the STL?
- h. What do you mean by Object Oriented?
- i. What is the method Overloading?
- j. What is method over riding?
- k. What are different types of Inheritance?

SECTION B**2. Attempt any three of the following: 10 x 3 = 30**

- a. Give a detailed description of the concepts of exception handling with specific reference to the concepts of re throwing an exception, exception specification etc.
- b. Create a class that contains one data member. Overload all the four arithmetic operators so that they operate on the object of that class.
- c. What is the significance of operator overloading? Write a C++ program to add two complex objects by overloading the '+' operator.
- d. Write short note on any Four of following: (i) Function overloading in C++ (ii) Meta classes. (iii) Polymorphism in C++
- e. Explain parameterized constructor with suitable example.

SECTION C**3. Attempt any one part of the following: 10 x 1 = 10**

- (a) Write a program to read text file and perform following operation :
1. Display count of character in file 2. Display count of new line in file
- (b) Write a program to illustrate concept of Hybrid inheritance.

4. Attempt any one part of the following: 10 x 1 = 10

- (a) Write short note on (i) Inline function (ii) Recursive function (iii) Scope resolution operator (iv) Data hiding
- (b) Explain the basic concepts of object oriented programming? Explain control structure with suitable example.

- 5. Attempt any *one* part of the following: **10 x 1 = 10****
- (a) Define Virtual function. Write a program in C++ which demonstrate Virtual function
 - (b) Define CORBA Architecture with suitable diagram.
- 6. Attempt any *one* part of the following: **10 x 1 = 10****
- (a) Explain the Object Oriented Database with its main features and applications.
 - (b) Differentiate between Object Oriented database and Relational database.
- 7. Attempt any *one* part of the following: **10 x 1 = 10****
- (a) Define Command Line arguments. Why are they important? Justify your answer with suitable example.
 - (b) Write Short Notes on (i) Object Oriented Languages (ii) Object Modeling (iii) Booch Methodology