Code No: R161215 **R16** SET - 1

I B. Tech II Semester Supplementary Examinations, Nov/Dec - 2019
Object Oriented Programming through C++
(Com. to CSE, IT)

Time: 3 hours Max. Marks: 70

Note: 1. Question paper consists of two parts (**Part-A** and **Part-B)**
2. Answering the questions in **Part-A** is Compulsory
3. Answer any **FOUR** Questions from **Part-B**

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PART –A

1. a) What do you understand by the term polymorphism in C++? (2M)
   b) What is the need of a destructor in C++ programming? (2M)
   c) Differentiate between class and structure. (2M)
   d) Define pure virtual function. (2M)
   e) How to declare a pointer to an object? (2M)
   f) What is the difference between function overloading and function template? (2M)
   g) Define macro. (2M)

PART -B

2. a) Differentiate between procedural and object oriented approach. (7M)
   b) What is an object? How is it different from an ordinary variable and a class? Explain with an example. (7M)

3. a) What is static function? What is its use? How a member of class be declared as static? (7M)
   b) Write a C++ program to define three overloaded functions to swap two integers, swap two floats and swap two doubles. (7M)

4. a) What is operator overloading? Write the rule to overload an operator. (7M)
   b) What are the various types of situations that might arise in data conversion between incompatible types? How can they be handled? (7M)

5. a) What is meant by late binding? How is it implemented in C++? (7M)
   b) What are virtual classes? Explain the need for virtual classes while building class hierarchy. (7M)

6. a) Write a C++ program to illustrate catching all exceptions. (7M)
   b) Write a C++ program for Generic Bubble sort. (7M)

7. a) How STL is different from C++ standard library? Explain briefly the three foundational items of standard template library. (7M)
   b) What is an algorithm? How STL algorithm is different from conventional algorithm? (7M)

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