Code: IT3T4

II B.Tech - I Semester – Regular/Supplementary Examinations November 2019

OOPS THROUGH C + +
(INFORMATION TECHNOLOGY)

Duration: 3 hours   Max. Marks: 70

PART – A
Answer *all* the questions.   All questions carry equal marks
$$11x\ 2 = 22\ M$$

1.

   a) List out differences between C and C++.

   b) Define recursion in C++.

   c) List out the data types in C++.

   d) Define static member and static member function.

   e) What is constructor and list out various types of constructors?

   f) Define void pointer.

   g) What is the purpose of abstract class?

   h) List out file stream classes.

   i) Define class template.

   j) What is associative container?

   k) What is the purpose of iterator?

PART – B

Answer any ***THREE*** questions. All questions carry equal marks.

$$3 \times 16 = 48 \text{ M}$$

2. a) Explain key concepts of OOP in detail.   8 M

   b) Discuss how function overloading can be done in C++
      using examples.   8 M

3. a) Define operator overloading and write an example program
      to overload '+' operator.   8 M

   b) What is virtual base class? Explain an example for multiple
      inheritance.   8 M

4. a) Write about virtual function using example program.   8 M

   b) Explain how dynamic memory allocation can be done in
      C++.   8 M

5. a) Explain various file opening modes and write a program to
      copy contents from one file to other file.   8 M

   b) Write about function template with multiple parameters
      with example.   8 M

6. a) Discuss about string handling functions in C++ and write a
     program to reverse a string.   8 M

   b) Explain about exception handling mechanism in C++ with
      appropriate example.   8 M