Code: IT3T4

II B.Tech - I Semester–Regular/Supplementary Examinations November 2016

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) Usage areas of OOP.
   b) Define inline function.
   c) Use of memory management operators.
   d) What is static object?
   e) What is constructor overloading?
   f) Write the characteristics of array.
   g) Differentiate late and early binding.
   h) Write the steps for file operations.
   i) What is function template?
   j) Write two string library functions with syntax.
   k) Define different parts of STL.

PART – B
Answer any ***THREE*** questions. All questions carry equal marks.

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

2.
   a) Discuss about key concepts of OOP.   8 M

   b) What are the different ways of passing arguments to function in C++?   8 M

3.
   a) What is the use of friend function? Write the properties of friend function.   6 M

   b) Write a C++ program to create an object and release them using destructors.   4 M

   c) Write a program to demonstrate hierarchical inheritance.   6 M

4.
   a) Write a program to display names, rollnos, and exam grades of 3 students.
   Declare the class of name, rollno, and grade. Create an array of class objects. Read and display the contents of the array.   8 M

   b) Explain runtime polymorphism using virtual function.   8 M

5.

   a) Write a program to copy the contents of one file to another. 6 M

   b) What is the need of template in C++ ? 4 M

   c) Explain overloading of template functions with example. 6 M

6.

   a) Write program to throw and catch multiple exceptions. 8 M

   b) List and explain about different containers in Standard Template Library (STL). 8 M