1019
B.E. (Computer Science and Engineering)
Second Semester
CS-202: Object Oriented Programming

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt <u>five</u> questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

   a) What is void pointer?

   b) How data hiding is implemented in OOPS?

   c) Why Inline functions are called macros?

   d) What is generic programming?

   e) Name some operators that can't be overloaded.

   f) What is Containership?

   g) What is the use of 'THIS' pointer?

   h) Explain Pure Virtual Functions.

   i) Name two new data types introduced in C++.

   j) What is meant by ofstream in C++?   (10x1)

UNIT – I

II. a) Write a class ACCOUNT that represents your bank account and then use it. The class should allow you to deposit money; withdraw money, calculate interest (8%) and send you a message if money is not sufficient in the account. Use constructor to provide initial amount in the account. Use pointers to access the class members.

   b) How Object Oriented Programming is different from Module Programming?

(7,3)

III. a) Write a program to exchange private variables between two classes using concept of Friend function and pass the values by reference.

   b) Write a program to overload logical operator for string concatenation.   (5,5)

P.T.O.

(2)

IV.   a) What are primitive and non primitive data types? Write a program to demonstrate non-primitive to non- primitive data type.

   b) What is Inheritance? List its types. Write a program to find factorial using Inheritance.   (5,5)

UNIT – II

V.   a) Explain class template using multiple parameters. Write a program in C++ to demonstrate the same.

   b) List different types of STL containers.   (5,5)

VI.   a) Write a program to copy a text file using command line arguments.
   b) Explain seekg(), tellg(). read() with syntax.   (6,4)

VII.   a) What is exception Handling? How it is implemented in C++. Write a program to demonstrate the concept of rethrowing an exception.   .

   b) What are various file opening modes?   (6,4)

x-x-x