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III SEMESTER

B.Tech.[IT]

SUPPLEMENTARY PAPER

(FEB-2019)

IT 203 OBJECT ORIENTED PROGRAMMING

Time:3hrs.

Max. Marks: 40

Note: Q1 is compulsory. Attempt any FOUR out of the rest.

Assume suitable missing data, if any.

Q1. Answer the following

2x6

- a) Write a program to find the length of a string using operator overloading
- b) Differentiate between Java application vs applet
- c) Differentiate between Call by value vs call by reference
- d) Differentiate between Class and structure
- e) What is dynamic and static binding in C++?
- f) What is the role of :: in inheritance?

Q2. a) Explain the methods to overload operators. Why is it required? Overload the << and >> operators.

3

b) What is a friend function? Explain the concept of friend function and friend class in detail with an example. Also discuss inheritance in case of a friend function giving reasons for your answer.

4

Q3 a) Write a program to declare a class 'student', consisting of data members roll_no and stud_name. Write the member functions accept() to accept and display() to display the data for 10 students.

3

b) What is java applet? Give its properties in detail. Give an example of the same by creating a basic applet which will print the string "Hello User" on the screen.

4

Q4. Answer the following with examples

a) "Java is a pure object oriented programming language". Explain

3

b) Write a program to show the use of virtual base class.

4

Q5. Answer the following with examples.

a) What is the role of a nested class? How to use it?

3

b) How does runtime polymorphism occur in C++?

4

Q6 a) Write a program to show the role of this keyword in C++. Explain.

3

b) Explain exception handling in C++. How is an exception rethrown? Also explain the concept of multiple catch and catch all.

4

Q7 a) Explain templates and its types with detailed example.

3

b) What is initialiser list and discuss its role in constructor calls in multilevel inheritance in C++ with examples.

4

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