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## 24164

# B. Tech. 4th Semester (Information Technology) Examination – May, 2013

## OBJECT ORIENTED PROGRAMMING USING C++

### Paper : IT-202-F

Time : Three hours ]                          [ Maximum Marks : 100

*Before answering the question, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

**Note :** Attempt *five* question. Question 1 is *compulsory* select *one* question from each unit.

1.  (a) How does an inline function differ from preprocessor macro ?

    (b) What is class ? How does it accomplish data hiding ?

    (c) How do we invoke a construction function ?

    (d) Why is it necessary to overload an operator ?

    (e) What are input and output stream ?

## SECTION-A

2. (a) What are preprocessor directive. Why they are needed ?

   (b) What are standard libraries available with C++ ? Explain.

3. What is Object-Oriented programming ? How is it different from Procedure-Oriented programming ? Why C++ is used for object-oriented programming ? Illustrate.

## SECTION-B

4. What is constructor ? Is it mandatory to use construction in a class ? Can be have more than on constructor in a class ? If yes, explain the need for such a situation.

5. (a) What are friend function ? What are merits and demerits of using friend function ?

   (b) How does a C++ structure differ from a C++ class ? Explain.

## SECTION – C

6. What does inheritance mean in C++ ? What are different forms of inheritance ? Give an example for

each. How containership differ from inheritance ? Explain.

7. (a) What is operator overloading ? Differentiate between overloading of binary operator using friend function and without friend function.

(b) What is virtual function ? Why do we need virtual functions ? Explain with example.

## SECTION – D

8. (a) What do you mean by Template ? Write a program to demonstrate class template.

(b) How can we create a sequential access file ? Explain.

9. (a) What is an exception handler ? What are the steps involved in exception handling ?

(b) What is file mode ? Describe the various mode operations available ?