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Total number of printed pages – 2

**B. Tech**  
**BECS 2207**

**Third Semester Examination – 2013**  
**OBJECT ORIENTED PROGRAMMING**

**BRANCH: CSE, IT**

**QUESTION CODE : C- 507**

**Full Marks – 70**

**Time : 3 Hours**

*Answer Question No. 1 which is compulsory and any **five** from the rest.  
The figures in the right-hand margin indicate marks.*

1. Answer the following questions : 2 × 10
- (a) Explain different visibility modes in object oriented programming.
  - (b) What is pure virtual function ? Explain with example.
  - (c) What is the difference between static binding and dynamic binding ?
  - (d) Name the operators that cannot be overloaded.
  - (e) List the three ways of passing parameters (or return value) in C++.
  - (f) Differentiate between a template class and class template.
  - (g) What is the difference between constructor and destructor ? Explain using example
  - (h) What is the work of catch (...) ?
  - (i) Define an inline function .
  - (j) What is the application of scope resolution operator in C++ ?
2. (a) Write a program in C++ to input a number, and then find out factorial. 5
- (b) Create a class to specify data of customers in a bank. The data to be stored at : Account Number, Name, Balance in the account.
- Assume maximum of 200 customers in the bank. 5

**P.T.O.**

3. (a) Write a C++ program to add two time objects(hr, min, sec) and find the resultant time(hr, min, sec). 5  
(b) What is a Parameterized constructor ? 5
4. What is inheritance ? Describe the various types of inheritance with example for each one. 10
5. (a) Write a C++ program to add two complex numbers using an Overload + operator. 5  
(b) What is a friend function ? What are the merits and demerits of using friend function ? 5
6. (a) What does Polymorphism in C++ ? How it is achieved at compile time and run time ? Give an example of it. 5  
(b) What is constructor ? Explain the characteristics of constructor. 5
7. (a) Write a program to create a template to find the maximum value stored in array. 5  
(b) What do you understand by exceptions in a C++ program ? With an example explain how exceptions are handled in a C++ Program. 5
8. Write short notes on any **two** : 5×2  
(a) Data encapsulation  
(b) Inline function  
(c) Multilevel inheritance  
(d) Virtual Destructor.