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## II Semester B.C.A. Examination, Feb./March 2010 OBJECT ORIENTED PROGRAMMING WITH C++

Time: 3 Hours Max. Marks: 80

Instructions: 1) Answer all questions in Part A, 6 out of 8 questions in Part B, and 3 out of 5 questions in Part C.

- 2) Part A: Questions from 1 to 8 carry 1 mark and 9 to 14 carry 2 marks each.
- 3) Part **B**: **Each** question carries 5 marks.
- 4) Part C: Each question carries 10 marks.

## PART - A

- 1. What are the elements of function prototype?
- 2. What is volatile qualifier?
- 3. Which operators cannot be overloaded?
- 4. Define constructor.
- 5. What is function template?
- 6. What is base class?
- 7. Define Member function.
- 8. What is the difference between gettline() and cout statement?
- 9. What is a comment statement? Give its syntax.
- 10. What is the usage of new operator? Explain.
- 11. Describe three steps of overload resolution.
- 12. Explain the use of static member function.
- 13. Distinguish between private and public member functions.
- 14. List the types of inheritance.

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## PART - B

- 1. Explain dynamic binding. How it is different from static binding?
- 2. Explain return by reference with example.
- 3. Write a C++ program to implement default arguments.
- 4. Give the differences between inline and non-inline function.
- 5. Explain function template with an example.
- 6. Write a note on virtual function.
- 7. Write a C++ program to count number of characters in a file.
- 8. Explain multiple and hybrid inheritance.

## PART – C

- 1. a) Explain function overloading and illustrate with a C++ program.
  - b) Explain class and its access notes in C++.
- 2. a) Define friend function. Illustrate with a C++ program.
  - b) Describe array of objects with example.
- 3. Explain the different types of constructors with example.
- 4. a) Write a C++ program to concatenate two strings using a binary operator '+'.
  - b) List the rules of using a constructor.
- 5. a) Explain different modes of opening a file in C++.
  - b) Compare get and head() function.