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06CS44

Fourth Semester B.E. Degree Examination, June/July 2011
Object Oriented Programming With C++

Time: 3 hrs.

Max. Marks:100

Note: *Answer any FIVE full questions, selecting at least TWO questions from each part.*

PART A

1 a. Give a comparison of C and C++ with an example. **(06 Marks)**
  b. What is function overloading? Explain with an example. **(06 Marks)**
  c. Define Objects. Create a class FLOWER with following characteristics : Name, Color, Price. Display the names of all flowers costing more than 25 rupees. **(08 Marks)**

2 a. Explain how you can overload member functions with an example. **(06 Marks)**
  b. How you can make member functions inline? Give an example. **(06 Marks)**
  c. Write a C++ program to sort the list of students depending on their holl numbers. **(08 Marks)**

3 a. What are the disadvantages of static allocation and deallocation? **(06 Marks)**
  b. Explain constructors with an example. **(08 Marks)**
  c. What are destructors? Give the prototype for destructors. What is the difference between constructors and destructors? **(06 Marks)**

4 a. What is inheritance? Mention different kinds of inheritance. Explain any two. **(08 Marks)**
  b. Explain the order in which constructors and destructors are involved. **(06 Marks)**
  c. Can friendship be inherited? Explain with example. **(06 Marks)**

PART B

5 a. Explain how you can define pure virtual functions with an example. **(06 Marks)**
  b. Explain the class hierarchy for handling streams with a neat diagram. **(08 Marks)**
  c. Explain how you can create virtual functions with an example. **(06 Marks)**

6 a. Write short notes on :
    i) Role of eofbit, failbit and badbit in error handling
    ii) The eof( ) function **(06 Marks)**
  b. What are the rules for operator overloading? Explain briefly. **(08 Marks)**
  c. Explain how you can overload relational operators through friend function. **(06 Marks)**

7 a. Explain the overloading of 'new' and 'delete' operators. **(08 Marks)**
  b. Explain how assignment operator is overloaded. **(06 Marks)**
  c. Explain the overloading of insertion operator. **(06 Marks)**

8 a. What are new style cast operators? Give general syntax. **(06 Marks)**
  b. Give the general syntax for creating function templates. Explain with an example. **(06 Marks)**
  c. Explain overloading of a function template with an example. **(08 Marks)**

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