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06EE665

Sixth Semester B.E. Degree Examination, December 2010
Object Oriented Programming using C++

Time: 3 hrs. Max. Marks:100

Note: *1. Answer any FIVE full questions selecting at least TWO questions from each part.*
2. Provide C++ program segments wherever required.

PART – A

1 a. Compare and contrast object oriented programming with procedure oriented programming. (06 Marks)

b. How does C++ support the major and minor components of object model? (10 Marks)

c. How does typed languages differ from untyped languages? What is the nature of typing in C++? (04 Marks)

2 a. How does C++ differ from C on the following :
i) Placement of variable declaration.
ii) Scope resolution operator.
iii) Passing a variable to a function.
iv) Comment formats. (06 Marks)

b. What are inline functions? Explain. Provide a suitable illustration. (06 Marks)

c. What are enumerations? Explain with a suitable illustration. (08 Marks)

3 a. What are classes and objects? Explain. (06 Marks)

b. List the drawbacks of classes with all public data members. (06 Marks)

c. How is access control established for members and external users in object oriented languages in general and C++ in particular? (08 Marks)

4 a. What are constructors? What are the differences between member functions and constructors? (06 Marks)

b. What is function overloading? What is the selection criteria for overloaded functions to determine which function to call? (06 Marks)

c. Provide an example for class with multiple constructions. (04 Marks)

d. What are new and delete operators? What are their advantages? (04 Marks)

PART – B

5 a. What is a friend function? What are its advantages? (08 Marks)

b. Explain multiple inheritances, with a suitable example in C++ code. (08 Marks)

c. What is the constructor rule for inheritance? Explain. (04 Marks)

6 a. What is operator overloading? List the rules. (10 Marks)

b. Distinguish copy construction v/s assignment operator. List the access rules for copy constructor and assignment operator. (10 Marks)

7 a. What are abstract classes and pure virtual functions? (06 Marks)

b. What are increment and decrement operators? Provide a suitable illustration. (06 Marks)

c. What are simple and composite control constructs in C++? Show how a composite one can be split into simple control constructs. Provide syntax and program segment for illustration. (08 Marks)

8 Write explanatory notes on :
a. Array in C++ b. Programming paradigms.
c. Concept of code reuse using C++ d. Polymorphism. (20 Marks)

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