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Question Paper Code : 10261

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2012.

Third Semester

Computer Science and Engineering

CS 2203/141303 /CS 35 /CS 1202 /10144 CS 304 /080230004 —
OBJECT ORIENTED PROGRAMMING

(Common to Information Technology)

(Regulation 2008)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are objects? Illustrate with an example?
2. What is data abstraction?
3. What is a constructor?
4. What are new and delete operators?
5. What is a template?
6. What is an exception?
7. What is the use of abstract base class?
8. What is pure virtual function?
9. What are the ways of using namespaces?
10. What are manipulators?

PART B — (5 × 16 = 80 marks)

11. (a) Explain the major principles of object oriented programming with illustrations and neat sketches. (16)

Or

- (b) Explain in detail about
- (i) inline function
 - (ii) friend function
 - (iii) const function
 - (iv) volatile function with suitable illustrations. (16)

12. (a) What are the various types of constructors? Illustrate with programming examples. (16)

Or

- (b) What is meant by function overloading? Write a C++ program to illustrate the concept of function overloading. (16)

13. (a) What is a function template? Write a template function to sort arrays of float and int using bubble sort. (16)

Or

- (b) Discuss in detail about exception handling constructs and write a program to illustrate divide by zero exception. (16)

14. (a) What is application of virtual function? Explain with an example how late binding is achieved using virtual function. (16)

Or

- (b) Explain the various runtime casting in detail. (16)

15. (a) What are manipulators? Explain in detail various manipulators used for I/O operations with example. (16)

Or

- (b) Discuss in detail about Standard Template Library. (16)