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Question Paper Code : 73375

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2017.

Third Semester

Computer Science and Engineering

CS 2203/CS 35/CS 1202/10144 CS 304/080230004 – OBJECT ORIENTED
PROGRAMMING

(Common to Information Technology)

(Regulations 2008/2010)

(Also common to 10144 CS 304 – Object Oriented Programming for
B.E. (Part-Time) First Semester – CSE – Regulations 2010)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define Abstraction.
2. What is a nested class?
3. What are the uses constructor?
4. What is role of new and delete operator?
5. Write down the syntax of try-catch-throw exception handling in C++.
6. Differentiate function template and class template.
7. How exception handling work in C++?
8. What is meant by abstract class?
9. What are streams?
10. What is a namespace?

PART B — (5 × 16 = 80 marks)

11. (a) Write about the inheritance with examples.

Or

- (b) Describe the function overloading and friend functions.

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 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) Develop an object oriented program in C++ to prepare the marksheet of an university exam with the following items read from the keyboard :

Name of the Student

Roll No

Subject Name

Subject Code

Internal Marks

External Marks

Design a Base class consisting of the data members such as name of the student, roll number and subject code, internal marks and external marks. The program should be able to do the following tasks :

Build Table

Display the Table

Insert into the table

Delete from the table

Edit entry

Search for a record that is needed to be printed. (16)

Or

- (b) Write a program in C++ to demonstrate Runtime polymorphism in hierarchy of classes on a member function that performs dynamic casting. (16)
15. (a) What are manipulators? Explain in detail various manipulators used for I/O operations with example. (16)

Or

- (b) (i) Write a program to read and count the characters in a string. (8)
- (ii) Explain how sequence iterators work. (8)