

- d) What is exception handling? How is it done? Explain with examples.

Or

Describe the features of I/O system supported by C++.

Roll No

IT - 303

B.E. III Semester

Examination, December 2015

OOPs Methodology

Time : Three Hours

Maximum Marks : 70

- Note:** i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.
 ii) All parts of each question are to be attempted at one place.
 iii) All questions carry equal marks, out of which part A and B (Max. 50 words) carry 2 marks, part C (Max. 100 words) carry 3 marks, part D (Max. 400 words) carry 7 marks.
 iv) Except numericals, Derivation, Design and Drawing etc.

Unit-I

1. a) How are data and functions organized in an object oriented program?
- b) What do you mean by dynamic binding? How is it useful in OOP?
- c) Describe how data are shared by functions in a procedure-oriented program.
- d) What is operator overloading? Why is it necessary to overload an operator?

Or

Describe the multiple inheritance with an example. When do we use such an inheritance?

Unit-II

2. a) What kinds of thing can become object in OOP?
- b) What are the difference between aggregation and inheritance?
- c) How can we implement aggregation in OOP? Explain with example.
- d) What are the problems associated with storage management? How can it solve?

Or

What is the purpose of class diagram? Describe icons used for class relationships.

Unit-III

3. a) Distinguish between the following two statements:
 Time $T_2(T_1)$;
 Time $T_2 = T_1$;
 T_2, T_1 are the objects of class Time. *
- b) What is a class? When do we declare a member of a class static?
- c) Can we pass class objects as function arguments? Explain with the help of an example.
- d) What is association? How recursive association is achieved in OOP?

Or

What are the advantages and limitation of using default arguments in a function? Write a program which defines a function with three default arguments and call the function in four different ways.

Unit-IV

4. a) How methods can be redefined and used? Give example.
- b) How inherited method is different from redefined method?
- c) What is role of access specifiers in OOP?
- d) What is containership? How does containership differ from inheritance?

Or

Design a class called as FATHER and MOTHER as base classes and class CHILD which is derived from both father and mother. Father has qualities Q_1, Q_2 and Q_3 and mother has qualities Q_1, Q_2 and Q_4 . Write a C++ program to display the qualities of CHILD due to inheritance.

Unit-V

5. a) What is the role of scope resolution operator in C++?
- b) What are the functions supported by file system classes for performing I/O operation?
- c) What is file mode? Describe the various file mode operation available.