



LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – COMPUTER SCIENCE

THIRD SEMESTER – APRIL 2013

CS 3502 - OBJECT ORIENTED PROGRAMMING WITH C++

Date: 29/04/2013
Time: 9:00 - 12:00

Dept. No.

Max. : 100 Marks

PART – A

Answer All the Questions:

(10x2=20)

1. Define Token.
2. What is inline function? What is the purpose of inline function?
3. What is a parameterized constructor?
4. What is a class? How it is created?
5. What does “this” pointer meant for?
6. What is a pure virtual function?
7. Define Stream.
8. List the various File Mode Parameters.
9. Define Function Template and write the syntax.
10. What is an Exception?

PART – B

Answer All the Questions:

(5x8=40)

11. a. Describe with examples, the uses of enumeration data types.
(OR)
b. Write about the features of Object Oriented Programming.
12. a. Discuss on Copy Constructor with an example.
(OR)
b. Explain about friend functions with an example.
13. a. Write about Virtual Base Classes.
(OR)
b. Explain Polymorphism with an example.
14. a. Explain about C++ stream classes.
(OR)
b. Explain the formatted Console I/O operations with examples.
15. a. How is the Exception Handling performed in C++? Write a program that throws an Arithmetic Exception as and when a number input is greater than 255.
(OR)
b. Explain the method of overloading the Template Functions.

PART - C

Answer any TWO Questions:

(2x20=40)

16. a. Discuss on Binary Operator Overloading with an Example.
- b. Explain how multiple constructors are created in a class with a suitable example.
17. a. Write about Multilevel Inheritance with an example.
- b. Create a class Employee . Include Empno, Empname, Basic Salary , DA , HRA, Conveyance and Medical as data members. Include member functions to accomplish the following:
- (i) Accept Empno, Empname and Basic Salary from the user.
 - (ii) Calculate DA as 50% of Basic Salary and HRA as 30% of Basic Salary.
 - (iii) Initialise conveyance and Medical to Rs. 2000/ and Rs. 1000/ respectively, whenever an object is created.
 - (iv) Display the data of all employees entered and the gross salary computed as sum of the Basic Salary, DA, HRA , Conveyance and Medical.
18. a. What do you mean by templates? Explain the creation and usage of function templates. Write a template function for exchanging (swapping) the values between two variables.
- b. Write a C++ program that reads a text file and creates another file to copy the contents.

\$\$\$\$\$\$