LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.Sc. DEGREE EXAMINATION – **COMPUTER SCIENCE**

THIRD SEMESTER – **NOVEMBER 2017**

16UCS3MC02 – OBJECT ORIENTED PROGRAMMING USING C

Date: 07-11-2017 Dept. No. Max. : 100 Marks

Time: 09:00-12:00

Part – A

Answer All the Questions **(10 x 2 = 20 Marks)**

1. What are the features of OOP?
2. What is in line function? Give example.
3. Distinguish between overloading and overriding.
4. Define Friend Function and Friend Class.
5. Describe the importance of destructor.
6. How the objects are initialized dynamically?
7. What is a virtual function?
8. Define Derived class.
9. What is a template?
10. What are constructs used in Exceptions handling?

Part – B

Answer All the Questions **(5 x 8 = 40 Marks)**

11. a) Explain call-by-value and call-by-reference with an example.

(OR)

11. b) Explain Data Abstraction and encapsulation with example.
12. a) Define a class to represent a bank account. Include the following data members and member functions. Data members: Name of the depositor, Account number, Type of account, Balance amount. Member functions: To assign initial value. To deposit an amount, To withdraw an amount after checking the balance, To display the name and the balance amount. Write a C++ code to implement the above.

(OR)

12. b) Explain the use of friend functions with example
13. a) Explain in detail about Parameterized constructors and destructors with example.

(OR)

13. b) Explain unary operator overloading and binary operator overloading with example.
14. a) What is the difference between a virtual function and a pure virtual function? Give example of each.

(OR)

14.b) Define Inheritance. What are the various types of inheritance?

15.a) Briefly explain about the syntax of a class template with suitable program.

(OR)

15. b) Discuss I/O manipulation and random access.

PART – C

Answer Any TWO Questions **(2 x 20 = 40 marks)**

16. a) Discuss in detail about various control structures in C++ with suitable example.

b) Explain static member functions with a sample code.

17. a)Write a C++ code to implement dynamic and copy constructor.

b) Write a C++ program for implementing hybrid Inheritance.

18. a) Explain in detail about Exception Handling mechanism in C++ with suitable example.

b) Discuss in detail about classes for file stream operations

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