LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

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

THIRD SEMESTER – **NOVEMBER 2017**

CS 3502 – OBJECT ORIENTED PROGRAMMING WITH C++

Date: 08-11-2017 Dept. No. Max. : 100 Marks

Time: 09:00-12:00

PART-A

ANSWER ALL THE QUETSIONS : (10*2=20)

1. Define abstraction and encapsulation.
2. Give any four applications of OOPS.
3. What are constructors?
4. What is dynamic initialization of objects?
5. What is inheritance? What are the types of inheritance?
6. When a class can be made virtual?
7. Define End of file?
8. What are the Basic files Operation?
9. What are templates?
10. What are the blocks used in the Exception Handling?

PART-B

ANSWER ALL THE QUESTIONS: (5*8=40)

11. a) Highlight the features of object oriented programming language

(OR)

b) Explain function overloading with an example.

12. a) Explain dynamic constructor and default constructor.

(OR)

b) How constructors can be overloaded? Give example.

(OR)

13. a) What are the operators that cannot be overloaded? Write a program to overload any one of the binary operators?

(OR)

b) What is virtual function? When do we make a virtual function “pure”?

14. a) Write a program to copy content of one file to another file using command line arguments.

(OR)

b) Explain Formatted console I/O operations.

15. a) Explain Function template with example.

(OR)

b) What is an exception? Explain how the control is transferred and handled in an C++ programs give example.

PART-C

ANSWER ALL THE QUESTIONS (2*20=40)

16. a) Explain control structures in C++.

b) Write a C++ program to explain runtime polymorphism.

17. a) Illustrate any four types of inheritance supported in C++ with suitable example.

b) Explain file stream operations and the classes.

18. a) Write a C++ program using class template for finding the scalar product for int type vector and float type vector.

b) Explain about Call by Value and Call by Reference with an example program.

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