



**LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034**

**B.C.A. DEGREE EXAMINATION – COMPUTER APPLICATIONS**

**THIRD SEMESTER – APRIL 2016**

**CA 3502 – OBJECT ORIENTED PROGRAMMING WITH C++**

Date: 02-05-2016

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

**PART – A**

**Answer All questions**

**(10 x 2 = 20 Marks)**

1. Define Encapsulation and Data Hiding.
2. List out some of the benefits of OOP over structured programming.
3. What is function overloading?
4. Define constructors. Give the various types of constructors.
5. What is a virtual function?
6. Write down the difference between overloading and overriding.
7. Describe the various file modes of operations.
8. Explain about iostream class.
9. What is an exception? List down common examples of exceptions.
10. What is a Function template? Explain with example.

**PART – B**

**Answer All questions**

**(5 x 8 = 40 Marks)**

11. a) Explain the basic Object Oriented concepts with suitable examples.  
(or)  
b) Illustrate the various function call mechanisms with suitable programming examples.
12. a) Explain in detail about classes and objects with example.  
(or)  
b) Explain in detail about constructor and its types with suitable examples.
13. a) Explain virtual functions with an example program.  
(or)  
b) Write a C++ program to overload the binary arithmetic operators (+, -, \* and /).
14. a) Explain in detail about Unformatted I/O operations with examples.  
(or)  
b) Explain in detail about functions used for manipulation of files with suitable examples.
15. a) Explain Exception Handling in C++ with examples.  
(or)  
b) What is function template? Write a template function to sort arrays of float, int and char.

**PART – C**

**Answer any TWO questions**

**(2 x 20 = 40 Marks)**

16. a) Explain in detail about various control structures with suitable examples.  
b) Write a program to implement various types of constructors and destructor.
17. a) Explain in detail about various types of inheritance with suitable example.  
b) Write a program to implement file Pointer.
18. a) Explain in detail about class template with example program.  
b) Explain about inline function?

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