

- (b) Discuss function with default arguments with the help of suitable example ?

**UNIT - II**

13. (a) What do you mean by access specifier ? How they are used in the content of class ?  
(b) What is function overloading ? Write a C++ program using program using function overloading to perform :  
(i) addition of 2 int nos.  
(ii) addition of 2 real nos.  
(iii) addition of 2 strings

**UNIT - III**

14. (a) What is the importance of polymorphism ? How dynamic binding is achieved using virtual functions ?  
(b) What is the order of execution of base class and derived class constructors ?

**UNIT - IV**

15. (a) What are the benefits of exception handling ?  
(b) Write a specifications of exceptions that are thrown implicitly ?

**UNIT - V**

16. (a) What is the difference between processing of sequential and random files ?  
(b) Explain the importance of using container classes ?

**BCA-301**

**B.C.A. III Year Examination, 2015**

Paper-I

(Object Oriented Programming Using C++)

Time : Three Hours

Maximum Marks : 100

**PART - A (खण्ड-अ)** [Marks : 20]

Answer all questions (50 words each).

All questions carry equal marks.

सभी प्रश्न अनिवार्य हैं। प्रत्येक प्रश्न का उत्तर पचास शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

**PART - B (खण्ड-ब)** [Marks : 50]

Answer five questions (250 words each).

Selecting one from each unit. All questions carry equal marks.

प्रत्येक इकाई से एक-एक प्रश्न चुनते हुए, कुल पाँच प्रश्न कीजिए।

प्रत्येक प्रश्न का उत्तर 250 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

**PART - C (खण्ड-स)** [Marks : 30]

Answer any two questions (500 words each).

All questions carry equal marks.

कोई दो प्रश्न कीजिए। प्रत्येक प्रश्न का उत्तर 300 शब्दों से अधिक न हो।

सभी प्रश्नों के अंक समान हैं।

PART-A

UNIT-I

1. What is the difference between class and structure?
2. What is inline function?
3. How constructors and destructors are called?
4. Write importance of this pointer?
5. Discuss the significance of derived class?
6. Differentiate static and dynamic binding?
7. How exceptions are different from errors?
8. Write the syntax of defining functions templates?
9. What do you mean by iterator?
10. What are different modes in which a file can be opened?

PART-B

UNIT - I

2. Describe various principles of object oriented programming?
3. Explain the difference between implicit and explicit type conversion using example?

UNIT - II

4. What are friend function? Is they are closely related to overloading of functions?
5. Write a C++ program to overload addition (+), subtraction (-) and multiplication (\*) operators for complex class?

UNIT - III

6. What is the difference between multiple and multilevel inheritance? How derived class access the members of the base class?
7. Why pure virtual function are used in C++? Is one can create objects of abstract class?

UNIT - IV

8. Write a C++ program to illustrate various stack operations using templates?
9. What is user defined exceptions? How they are caught and throw using try-catch block of C++?

UNIT - V

10. Write a C++ program using files to add records in a file and then copy all records from one file to another file?
11. Discuss various components of STL with their pros and cons?

PART-C

UNIT - I

12. (a) How OOP's differs from procedure oriented programming?