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# BC - 335

## BCA (Part-I) Examination, 2018

## (PROGRAMMING IN C++)

**Paper-BCA-103**

*Time allowed : Three hours*

*Maximum Marks : 70*



**Section A**

**(Marks 2 × 10 = 20)**

Answer all Ten questions (Answer limit 50 words). Each question carries 2 marks.

**Section B**

**(Marks 4 × 5 = 20)**

Answer all five questions. Each question has internal choice (Answer limit 200 words). Each question carries 4 marks.

**Section C**

**(Marks 10 × 3 = 30)**

Answer any three questions out of five. (Answer limit 500 words). Each question carries 10 marks.

## SECTION – A

1. Attempt all questions. Answer should not exceed 50 words in each question.

(i) What is the role of break statement in C++ programming ? (2)

(ii) Why do we use tokens in C++ programming ? (2)

(iii) What are the advantages of OOP's over POP ? (2)

(iv) Why should we ignore the use of goto statement in programming ? (2)

(v) What is data member and member function in a class ? (2)

(vi) Define the syntax of Array ? (2)

(vii) What are the needs of contractors ? (2)

(viii) Can a class be Abstract ? Define it. (2)

(ix) Specify the names of operators, those cannot be overloaded. (2)

(x) Discuss the role of virtual keyword. (2)

## SECTION – B

(Marks $4 \times 5 = 20$)

Attempt all questions. Answer should not exceed 200 words in each question.

2. What is Variable ? Discuss the scope of variables. (4)

**OR**

What is constant in C++ programming ? (4)

3. Discuss the iteration statements. (4)

**OR**

Differentiate between break and continue statements. (4)



4. Discuss the concept of class and objects in C++. (4)

**OR**

Explain the properties of Pointers in C++ programming. (4)

5. Discuss the working of Inline function with suitable examples. (4)

**OR**

Elaborate the working of friend function with its usage. (4)

6. What is operator overloading ? Define its rules with working process in C++ programming. (4)

**OR**

Differentiate between Static and Dynamic Binding. (4)

## SECTION – C

(Marks $10 \times 3 = 30$)

Attempt any **three** questions out of five. Answer should not exceed 500 words in each question.

7. What is Operator Precedence and associatively of various operators in C++ programming. (10)

8. Discuss the role of functions in C++ programming. Differentiate the working principle of function call by value and references. (10)

9. What is array ? Explain the advantages of array over simple data type with the help of suitable example to deal with dimensions of array. (10)

10. What is inheritance ? How it provides the base for reusability. Differentiate multilevel and multiple inheritance, with the help of suitable example. (10)

11. What is Polymorphism ? Discuss various forms of Polymorphism with working process in C++ programming. (10)

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# BC-380

## B.C.A. (Part-I) Examination, 2019

## (PROGRAMMING IN C++)

**Paper-BCA-103** 

*Time allowed : Three hours*
*Maximum Marks : 70*

**Section – A** **(2 × 10 = 20)**

Answer all **Ten** questions (Answer limit **50** words). Each question carries **2** marks.

**Section – B** **(4 × 5 = 20)**

Answer all **Five** questions. Each question has internal choice (Answer limit **200** words). Each question carries **4** marks.

**Section – C** **(10 × 3 = 30)**

Answer any **Three** questions out of five. (Answer limit **500** words). Each question carries **10** marks.

**Section – A**

Attempt **all** questions. Answer should not exceed **50** words in each question.

1. (i) Explain the concept of encapsulation.
   (ii) What do you mean by character set ?
   (iii) Differentiate between "call by value" and "call by reference".
   (iv) Differentiate between "Array and Structures".
   (v) What do you mean by Dynamic Array ?
   (vi) What is the role of pointers in programming language ?
   (vii) Define "inline functions".
   (viii) How destructor works in C++ ?
   (ix) Explain the concept of Operator overloading.
   (x) What do you mean by Virtual Function ?

## Section – B

Attempt **all** questions. Answer should not exceed **200** words in each question.

2. Differentiate between procedural and object oriented programming language.

**OR**

What do you mean by Data Type in C++ ? List various data types along with their size and range.

3. How "goto" is different from "break & continue" in C++ ?

**OR**

List various types of loops used in C++. Explain the working of "for" loop.

4. Explain the concept of Class. How it is different from Structure ?

**OR**

Define Array. How static array is different from dynamic array ?

5. What is the difference between inline function and friend function ?

**OR**

List various types of inheritance. Explain any one of them.

6. Differentiate between function overloading and operator overloading.

**OR**

Make a comparative study between virtual function and virtual class.

## Section – C

Attempt any **three** questions out of **five**. Answer should not exceed **500** words in each question.

7. List different types of Operators in C++ along with their precedence and associativity.

8. Explain the concept of recursion with help of a program to calculate the factorial of any given number.

9. Explain how data is stored in the memory in case of Array. Write a program to calculate the table of "n" number using array.

10. What do you mean by reusability in C++ ? Write a program to explain the concept of multilevel inheritance.

11. Define polymorphism. Write a program to explain the concept of friend function.

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Total No. of Questions : **11** ] [ Total No. of Printed Pages : **3**



# BC–198

## B.C.A. (Part–I) Examination, 2022

## PROGRAMMING IN C++

Paper - BCA-103

*Time : 3 Hours* ] [ *Maximum Marks : 70*

**Section–A** **(Marks : 2 × 10 = 20)**

***Note*** :– Answer all *ten* questions (Answer limit **50** words). Each question carries **2** marks.

**Section–B** **(Marks : 4 × 5 = 20)**

***Note*** :– Answer all *five* questions. Each question has internal choice (Answer limit **50** words). Each question carries **4** marks.

**Section–C** **(Marks : 10 × 3 = 30)**

***Note*** :– Answer any *three* questions out of five (Answer limit **500** words). Each question carries **10** marks.

**Section–A**

1. (i) What is Token ? Explain.

   (ii) What is data abstraction ? Explain.

   (iii) Explain goto statement in C++.

   (iv) What is recursive function ? Explain.

(v) Explain class and object.

(vi) What is Array of pointer ? Explain.

(vii) What is Abstract Class in C++ ? Explain.

(viii) What is Constructor ? Explain.

(ix) What is Operator Overloading ? Explain.

(x) Explain features of C++ 11.

**Section–B**

2. Explain concept of object oriented programming.

*Or*

What is type conversion ? Explain types of type conversions in C++.

3. What is function overloading ? Explain it with suitable example.

*Or*

Differentiate Pass by Value and Pass by Reference with suitable example.

4. Write a program to check a given string is palindrome or not palindrome.

*Or*

Explain instance variables and member function of a class using suitable example.

5. What is method overriding ? Explain with suitable example.

*Or*

What is Copy Constructor ? Explain with suitable example.

6. Differentiate Compile time and Run time polymorphism.

*Or*

Write a program to overload Unary++ operator using friend function.



**Section–C**

7. Explain the following with suitable example :

(a) Dynamic Binding

(b) Constants

(c) Scope of Variable

(d) Conditional Operator

(e) Cascading of input and output operator

8. Write a program using recursive function to find out factorial of a given number.

9. (a) Write a program for matrix multiplication.

(b) Write a program using class and object to calculate total marks and percentage of a student.

10. (a) What is multipath inheritance ? Explain with suitable example.

(b) Explain constructor invocation in inheritance.

11. What is Template ? Explain Function template and Class template with suitable example.