

**COPYRIGHT RESERVED BCA (Sem-I) – Programming
Fundamental Using C++ (101) Core-I**

2023

Time : 3 hours

Full Marks : 70

*Candidates are required to give their answers
in their own words as far as practicable.*

The figures in the margin indicate full marks.

Answer all sections as directed.

Section-A

Objective type Questions

Compulsory

1. Choose the correct alternative for each of the
following questions : $2 \times 10 = 20$

(a) Which of the following approach is used
by C++ ?

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(1)

(Turn over)

- (i) Left-right
 - (ii) Right-left
 - (ii) Bottomup.
 - (iv) Top down
- (b) Which of the following correctly declares an array in C++ ?
- (i) array{10}
 - (ii) arrar array [10]
 - (iii) int array;
 - (iv) int array {10};
- (c) Which is more effective while calling the C++ function ?
- (i) Call by object
 - (ii) Call by pointer
 - (iii) Call by value.
 - (iv) All of the above
- (d) What is inheritance in C++ ?

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(2)

Contd.

S21

- (i) Deriving new class from existing class.
 - (ii) Overloading of classes
 - (iii) Classes with same name
 - (iv) Wrapping of data into a single class
- (e) The if else statement can be replaced by which operator :
- (i) Bitwise operator
 - (ii) Conditional operator.
 - (iii) Multiplicative operator
 - (iv) Addition operator
- (f) The switch statement is also called as ?
- (i) Choosing structure
 - (ii) Selective structure.
 - (iii) Certain structure
 - (iv) Bitwise structure
- (g) The destination statement for the goto lable is identified by what lable ?

- (i) \$
 - (ii) @
 - (iii) *
 - (iv) :
- (h) What type of comment does C++ support ?
- (i) Single line
 - (ii) Multiline
 - (iii) Single line and Multiline
 - (iv) Resuable line
- (i) Where does the execution of the program starts :
- (i) User defined function
 - (ii) Main function
 - (iii) Void function
 - (iv) Else function
- (j) An inline function is expanded during ____
- (i) Compile time
 - (ii) Runtime

(iii) Never expanded

(iv) End of the program

Section-B

Short Answer type Questions

Answer any **four** questions of the following :

5×4=20

2. Write down the difference between OOP and POP.
3. Define constructor and briefly explain its type.
4. Explain overloading vs overriding.
5. Write down the features of object oriented programming.
6. What are the different types of loop in C++ ?
7. Write down any three string built in function with explanation.
8. Explain the concept of encapsulation with example.

9. What do you mean by polymorphism ? Explain with help of example.

Section-C

Long Answer type Questions

Answer any **three** questions of the following :

10×3=30

10. Write a program in C++ that gives the user the option of converting fahrenheit to celsius or celsius to fahrenheit and depending upon user's choice carries out the conversion.
11. Write a program in C++ to input a character and change its case to Upper case if the character is entered in lower case and vice versa.
12. What is Inheritance ? Explain it types with proper example.
13. Define a class candidate in C++ with the following description :

Private member

A data member RNO of type long

A data member score of type float

A data member Name of type string

A data member Remarks of type string

A member function Assign Rem () to assign remarks as per the score

Score	Remark
≥ 50	Selected
less than 50	Not selected

Public members

A function ENTER () to allow user to enter value for RNO, Name, Score and call function Assign Rem () to assign Remarks.

A function DISPLAY () to allow user to view the content of all the data members.

14. Write short notes on :

- (a) Data Abstraction
- (b) Pointer
- (c) Array
- (d) Destructor

15. Write a program in C++ to find the factorial of a given number.

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