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(Printed Pages 3)

(21223)

Roll No. ....

BCA - III Sem.

**18011**

**B.C.A. Examination, Dec.-2023**

**Object Oriented Programming**

**Using C++**

**(BCA-301)**

*Time : Three Hours ]*

*[Maximum Marks : 75*

**Note :** Attempt questions from **all** sections as per instructions.

**Section - A**

**Note :** Attempt **all** parts. Each part carries 3 marks.  $3 \times 5 = 15$

1. (a) Give difference b/w C & C++.
- (b) Explain the term "Generic Classes".
- (c) Give difference between Overloading and overriding.
- (d) Explain the use of C in a Cout in C++.
- (e) What is inheritance? How is it implemented in C++ programming.

**P.T.O.**

### Section-B

**Note :** Attempt any **two** questions.  $7.5 \times 2 = 15$

2. Write a program in C++ to print first 10 nos of fibboncci series  
series is 0, 1, 1, 2, 3, 5, 8, ----
3. Write about different access specifiers used in C++.
4. What do you mean by Run time polymorphism. How is it achieved in C++.

### Section-C

**Note :** Attempt any **three** questions.

$$15 \times 3 = 45$$

5. Define a class named "Train" representing following members:  
Data members    Members Functions  
Train number    initialize members  
Train Name      Input train Data  
Source  
Destination      Display Data  
Journey Date  
Capacity  
Write a C++ program to test the train class.

6. Write a C++ program that will create data file containing the list to telephone members as:

John 34567

Hari 56792

.....

7. (a) Explain Dynamic memory allocation in C++.  
(b) How is garbage collection done in C++.
8. Write a C++ program to swap two nos using pointers.
9. Write short notes on:  
(a) Exception Handling  
(b) Constructor & its types  
(c) Composition vs. classification hierarchy