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(20221) Roll No. ....

BCA-III Sem.

18011

B.C.A. Examination, Dec.-2020

Object Oriented Programming

Using C++

(BCA-301)

Time : Three Hours] [Maximum Marks : 75

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

Section-A

(Very Short Answer Questions)

Note : Answer all the **five** questions. Each question carries 3 marks. Very short answer is required.   5×3=15

Attempt **all** questions.

1. Define Encapsulation.   3

2. List the features of oops.   3

3. How do you define member function out side the class? Give example.   3

4. What is abstract class.   3

5. Explain the basic data types in C++ with example.   3

Section-B

(Short Answer Questions)

Note : Attempt any **two** questions.

2×7½=15

6. What do you mean by nesting of classes? Also explain how friend function is important in C++?   7½

7. Explain static data member & Staic data member functions with example.   7½

8. Define polymorphism. What are different methods of implementating polymorphism in C++.   7½

Section-C

(Detailed Answer Questions)

Note : Attempt any **three** questions.

$$3 \times 15 = 45$$

9. (a) Define Inheritance. What are the various types of inheritance? Explain with suitable example. 10

   (b) Give the General form of derived class. 5

10. (a) What is File? Write a program to update the contents using random access. 8

    (b) Explain the concept of reusability with example. 7

11. Define Functions. What are the advantages of using functions? What are the various methods of parameter passing to the functions? Explain. 15

12. Write short notes on:

    (i) Operator overloading 5

    (ii) Functions overloading 5

    (iii) Name Spaces 5

13. (a) What are the advantages of using new & delete operators as compared to the malloc () & calloc ()? 7½

    (b) What is constructor? Explain various types of constructor with example. 7½

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