C

(Printed Pages 4)

Roll No. _____

25/1185
B.C.A. Examination, 2025
(Third Semester)
First Paper
(Object Oriented Programming Using C++)

Time : Two Hours]   [Maximum Marks : 75

Note : Attempt **all** sections as directed.

Section-A

(Very Short Answer Type Questions)

Note : Attempt all the **05 (five)** questions. Each question carries **02 (two)** marks. The answer of each question should not exceed **50** words.   5×2=10

1. (a) What are namespaces in C++? Explain their importance with an example.

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(b) Differentiate between text files and binary files in C++.

(c) What is difference between C and C++.

(d) What is Generic classes?

(e) What is the default parameter value?

Section-B

(Short Answer Type Questions)

Note : Attempt any **05 (Five)** questions out of total **08 (Eight)** questions. Each question carries **05 (Five)** marks and answer of each question should not exceed **100** words.   5×5=25

2. (a) What are the basic principles of OOP? Describe Encapsulation, Inheritance, and polymorphism.

(b) Explain the concept of a constructor and destructor with examples.

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(c) Explain the difference between public, private, and protected inheritance.

(d) Explain the concept of pure virtual functions and abstract classes.

(e) Explain operator overloading with an example program.

(f) Explain the concept of late binding (dynamic binding) in C++.

(g) What is polymorphism? Differentiate between compile-time and runtime polymorphism. https://www.mgkvponline.com

(h) What is file handling in C++? Discuss the different file modes.

Section-C

(Long Answer Type Questions)

Note : Attempt any 02 (two) questions out of total 04 (four) questions. Each question

carries 20 (twenty) marks and answer of each question should not exceed 400 words. $2 \times 20 = 40$

3. (a) Explain virtual functions and pure virtual functions with an example.

(b) What are the advantages of using generic functions over function overloading?

(c) What is exception handling? What are the advantages of using exception handling in C++?

(d) What is polymorphism in C++? Explain its types. What are the advantages and disadvantages of polymorphism in C++?