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Third Semester B.C.A. Degree Examination, August/September 2021

SECTION - B
(CBCS Scheme)

Computer Science

Paper IV – OBJECT ORIENTED PROGRAMMING USING C++

Time : 3 Hours]

[Max. Marks : 70

Instructions to Candidates : Answer all Sections.

SECTION – A

I. Answer any **TEN** of the following. Each question carries **2** marks: **(10 × 2 = 20)**

1. What is data encapsulation?
2. What is function overloading?
3. What is const qualifier?
4. Write the list of non-parameterized manipulators?
5. What is access specifier? Mention its types.
6. What is copy constructor?
7. Define operator overloading.
8. What is multiple inheritance?
9. What is an exception?
10. What is the use of 'this' pointer?
11. List the file error handling functions.
12. Mention the usage of seekg() function.

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SECTION - B

- II. Answer any **FIVE** of the following. Each question carries **10** marks: **(5 × 10 = 50)**
13. (a) Explain the features of object oriented programming. (5)
(b) Explain call by value and call by reference. (5)
14. (a) Explain function overloading with a C++ program. (5)
(b) What is member function? Illustrate with an example. (5)
15. (a) Explain copy constructor with an example. (5)
(b) Give the general form of a class and illustrate access specifiers. (5)
16. (a) Write a C++ program to add two complex numbers by overloading '+' operator. (5)
(b) Explain the three types of data conversion. (5)
17. (a) Explain single inheritance with suitable examples. (5)
(b) What is an inline function? Illustrate with C++ program. (5)
18. (a) What is polymorphism? Explain two types of polymorphism. (5)
(b) Write a C++ program to demonstrate the friend function. (5)
19. (a) Define virtual function. Give the rules for creating a virtual function. (5)
(b) What is a manipulator? Write short notes on four pre-defined manipulators available in C++. (5)
20. Write short notes on:
- (a) Input and Output streams (3)
(b) Error handling in files (4)
(c) File opening modes (3)