S-771

Total Pages: 4 Roll No. -----

MCS-502

Object Oriented Programming Through C++ (MCA/MSCIT)

1st /3rd Semester, Examination 2022(Dec.)

Time: 2 Hours Max. Marks: 70

Note: This paper is of Seventy (70) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

Section - A

(Long Answer – type questions)

Note: Section 'A' contains Five (05) long-answer-type questions of Nineteen (19) marks each. Learners are required to answer any two (02) questions only.

 $[2 \times 19 = 38]$

P.T.O.

- Q.1. (a) What are advantages of object oriented programming over procedural programming?
 - (b) Write a C++ program of your choice using the "for loop".
- Q.2. (a) Explain the concept of polymorphism through suitable example.
 - (b) Explain the different flavors of "if" looping statement.
- Q.3. (a) What are the different types of array?
 - (b) Describe the multilevel inheritance. When such an inheritance is used? Explain with a suitable program?
- Q.4. (a) Illustrate the concept of operator overloading.

 How can you overload binary operators?

 Explain with example.
 - (b) Discuss about the significance of static data and member functions in C++?
- Q.5. (a) What do you mean by early binding and late binding? Explain how late binding can be achieved in C++.

(b) What is the role of manipulators in C++? Write down different manipulators in C++.

Section - B

(Short-answer-type questions)

Note: Section 'B' contains Eight (08) short-answer-type questions of Eight (08) marks each. Learners are required to answer any Four (04) questions only.

$$[4 \times 8 = 32]$$

- Q.1. Explain different operators available in C++.
- Q.2. What is a constructor? What are the rules for defining a constructor?
- Q.3. Explain use of friend function with the help of suitable example.
- Q.4. Illustrate the working of error handling in C++.

P.T.O.

- Q.5. Write a C++ program involving reading and writing of class objects in a file.
- Q.6. Explain the precedence of operators in C++ through suitable example.
- Q.7. What are the different data types available in C++?
- Q.8. What do you mean by function? How many types of function?
