

S-756

Total Pages : 4

Roll No. -----

MIT(CS)-303

OOPS using C++

M.Sc. Cyber Security (MSCCS)

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 x 19 = 38]

P.T.O.

- Q.1. Explain Object Oriented Programming. What are the main characteristics of OOP? Compare Object Oriented Programming with Procedure Oriented Programming.
- Q.2. Answer the following:
- (a) What is Dynamic Memory? Explain with the help of an example. (7)
 - (b) What is Input and Output Stream? Explain. (6)
 - (c) What is Overloading and "pass by reference"? (6)
- Q.3. What do you mean by Inheritance? Explain various types of inheritance with the help of suitable examples.
- Q.4. What are the needs of operator overloading in the program? Why can't some operators be overloaded? Write C++ program to add two complex numbers using plus (+) operator overloading.
- Q.5. What is exception? Explain how exception handling is done C++ with the help of a program. Also describe what will happen if an exception is thrown out side of a try block and why?

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 x 8 = 32]

- Q.1. Explain Modular Programming with the help of an example.
- Q.2. Explain the use of nested if statement with the help of an example.
- Q.3. Write a program in C++, which take two 3 x 3 matrices as input and find sum of them.
- Q.4. What is 'Copy constructor'? Explain it with the help of a suitable C++ program.
- Q.5. What do you mean by this pointer? Explain the use of this pointer with the help of an example.

P.T.O.

- Q.6. What is an object in C++? Explain how an object can be passed as an argument to a function with the help of an example.
- Q.7. What are access control specifiers? Explain difference between private and public access control specifiers.
- Q.8. Write short notes on :
- a) Encapsulation
 - b) break and continue
 - c) Polymorphism
 - d) Array
