

P-858

Total Pages : 3

Roll No.

MIT(CS)-303

M.Sc. Cyber Security (MSCCS)

OOPS using C++

3rd Semester Examination, 2023 (June)

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. Candidates should limit their answer to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

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.

(2×19=38)

1. Explain features of structured programming paradigm in brief. Also list its advantages and disadvantages with respect to Object Oriented Programming.

2. What are Inline functions? Discuss their importance in programming. Write an example program in C++ to clarify the concept of Inline functions.
3. What is Constructor? Explain the importance of a constructor in object-oriented programming. Differentiate between copy constructor and default constructor.
4. What is inheritance? What are the different types of inheritance supported by C++? Explain how inheritance is implemented in C++.
5. What do you mean by polymorphism? How is run time polymorphism different from compile time polymorphism? Give example(s) to support the above differentiation.

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. (4×8=32)

1. Define member function. Explain the purpose of member function.
2. Compare while () and do-while () looping constructs with the help of suitable example for each.

3. What is a structure in C+? Explain with example how a structure is different from a class?
 4. Explain the difference between Constructor and Destructor with the help of an example.
 5. Explain the concept of Friend function with suitable example code in C++.
 6. Abstract class provides a base upon which other classes may be built. Justify the above statement with the help of an example.
 7. What is function overloading? Give its advantages in a C++ program. Also write a C++ program to show function overloading.
 8. Write short notes on:
 - (a) Derived Class.
 - (b) Universal Polymor Phism.
 - (c) Union.
 - (d) Pure Virtual Function.
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