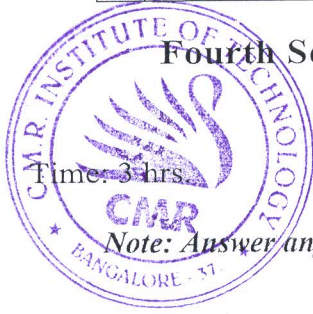


CBCS SCHEME

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18CS45



Fourth Semester B.E. Degree Examination, June/July 2023

Object Oriented Concepts

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. What is the need of structure? Explain with suitable examples. (06 Marks)
- b. List and explain any four features of Object Oriented Programming. (08 Marks)
- c. What is an inline function? Develop a C++ inline function to find maximum of two numbers. (06 Marks)

OR

- 2 a. What is the different between array of objects with array within objects. (06 Marks)
- b. Explain the use of scope resolution operator with example program. (08 Marks)
- c. List out the difference between procedure oriented programming with object oriented programming. (06 Marks)

Module-2

- 3 a. Define friend function. Illustrate with an example program. (06 Marks)
- b. List and explain java buzz word. (06 Marks)
- c. Write the program to calculate the average among the elements {4, 5, 7, 8} using for each in Java. Also show how for each is different from for loop. (08 Marks)

OR

- 4 a. List the characteristics of constructor. Implement a C++ program to define suitable parameterized constructor with default values for the class distance with data members feet and inches. (08 Marks)
- b. What is nested class? Explain the use of nested class with suitable example program. (06 Marks)
- c. What is namespace? Explain with suitable example. (06 Marks)

Module-3

- 5 a. Define inheritance and also define multilevel hierarchy with an example. (10 Marks)
- b. Define "this" keyword and explain with example program. (04 Marks)
- c. Define exception. Write a program with IllegalAccessException. Use proper exception handler so that exception should be printed. (06 Marks)

OR

- 6 a. Illustrate method overriding. Explain the rules to be followed while overriding a method. (08 Marks)
- b. Write the difference between throw and throws keyword with suitable example Java program. (08 Marks)
- c. Explain the use of "Super" keyword with example Java program. (04 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Module-4

- 7 a. Define Thread. Demonstrate thread priorities in Java with example program. (10 Marks)
b. Briefly explain the role of interfaces while implementing multiple inheritance in Java. (05 Marks)
c. Demonstrate different levels of access protection available for package and their implications. (05 Marks)

OR

- 8 a. Demonstrate the role of synchronization in producer and consumer problem. (10 Marks)
b. Define package and also explain the steps involved in creating user defined packages with an example program. (06 Marks)
c. Explain the two ways of creating thread in Java. (04 Marks)

Module-5

- 9 a. Develop a swing applet that has four checkbox items like C, C++, Java and Python. When anyone of the checkbox item is selected, it should display "C checked", "C++ checked and so on. (10 Marks)
b. Build JLabel and ImageIcon with example Java program. (06 Marks)
c. Explain adapter class with an example. (04 Marks)

OR

- 10 a. Explain the following with an example for each and syntax:
i) JLabel
ii) JComboBox
iii) JTextField
iv) JButton (10 Marks)
b. Illustrate JTable with suitable example. (06 Marks)
c. Describe two key features of SWING program. (04 Marks)

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