

CBCS SCHEME

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20MCA22

Second Semester MCA Degree Examination, July/August 2022 Object Oriented Programming with Java

Time: 3 hrs.

Max. Marks:100

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

Module-1

- 1 a. Explain the Buzzwords of Java. (10 Marks)
- b. Explain the various primitive data types used in Java. Give suitable examples. (10 Marks)

OR

- 2 a. Define an Array. Write the array declaration syntax for multidimensional arrays. Write a simple Java program to create an array of objects. (10 Marks)
- b. Demonstrate the concept of garbage collection through suitable examples. (10 Marks)

Module-2

- 3 a. Explain method overloading and constructor overloading with suitable examples. (10 Marks)
- b. Explain the following :
 - i) Varargs
 - ii) Final keyword. (10 Marks)

OR

- 4 a. What are super class constructors? How does super class members are used in Java. (10 Marks)
- b. What is Method-Overriding? Explain how it allows Java to support run-time polymorphism with an example. (10 Marks)

Module-3

- 5 a. What are interfaces? What are their benefits? Explain how it is implemented in java with suitable example. (10 Marks)
- b. What is Exception? Explain how exception handling mechanism can be used for debugging a program. (10 Marks)

OR

- 6 a. Define package. Explain the creation of a package using a suitable example program. (10 Marks)
- b. Develop a simple program and explain multiple catch blocks. (10 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 synchronization? Explain how inter-thread communication can be achieved in multithreading using producer and consumer problem. (10 Marks)
- b. Define multi-threading? Construct a java program to create multiple threads in Java by implementing runnable interface. (10 Marks)

OR

- 8 a. Develop a simple program and explain how enumerations are class types. (10 Marks)
- b. Analyze the following with syntax and example :
- i) values() and valuesof()
- ii) compareTo(). (10 Marks)

Module-5

- 9 a. What are URL classes? Explain URL connections with syntax. (10 Marks)
- b. What HttpURL connection class. Explain the methods of its. (10 Marks)

OR

- 10 a. Identify different types of methods defined by collection interface. (10 Marks)
- b. Demonstrate a simple program, the constructors and methods in ArrayList class. (10 Marks)
