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20MCA22

Second Semester MCA Degree Examination, Feb./Mar. 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

- a. List the characteristic features of JAVA and explain only four characteristic features of 1 (10 Marks)
 - b. What is types casting, type conversion and automatic type promotion? Illustrate it with a suitable example. (10 Marks)

OR

- Explain the primitive data types in JAVA. (08 Marks) b. Give any four methods of string class with syntax and example. (08 Marks) Write a short note on this keyword. (04 Marks)
 - Module-2
- a. Explain the usage of final keywords with a suitable example. (08 Marks) Explain the usage of super keyword with a suitable example. (08 Marks) (04 Marks)
 - Discuss briefly about inner class.

- What is method overloading and method overriding? Illustrate with a suitable example.
 - (10 Marks) Explain abstract class with an example. (06 Marks)
 - Write a short note on static keyword. (04 Marks)

Module-3

- What is interface? How multiple inheritance achieved in JAVA? Write a program to calculate the area of a rectangle and triangle by implementing multiple inheritance. (10 Marks)
 - b. Define package. Explain the access protection for class members with respect to package. (06 Marks)
 - Differentiate between abstract class and interface. (04 Marks)

OR

- a. Explain briefly five keywords to handle exception. Illustrate it with a suitable example.

 - b. What is checked and unchecked exception? Write a JAVA program to illustrate Nested try (10 Marks) eatch statement.

Module-4

- Define a thread, Explain the two methods for creating threads. (08 Marks) With a neat diagram, explain the thread life cycle. (08 Marks) Explain autoboxing and autounboxing with example. (04 Marks)

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OR

- a. What is enumeration? Explain briefly values() and valueOf() method with suitable (10 Marks) example.
 - b. Briefly discuss any five built-in annotation in JAVA.

(10 Marks)

Module-5

(10 Marks) a. Explain the concept of URL and URLConnection class. b. List and explain the Collection interface basic operation.

(10 Marks)

OR

- 10 a. Explain briefly the following concepts:
 - HttpURLConnection class
 - (ii) InetAddress class b. Write a JAVA program to demonstrate the utilities of LinkedList class.

(10 Marks)

(10 Marks)

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