A-840

Total Pages: 3 Roll No.

MCS-508

MCA/MSCIT

(Programming in Java)

2nd/4th Semester Examination, 2024 (June)

Time: 2:00 Hrs. 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 answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

Section-A

(Long Answer Type Questions) $2 \times 19 = 38$

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.

- 1. What is object-oriented programming? Explain the object-oriented features of Java in detail with the help of examples.
- 2. What are the various looping statements available in Java? Discuss with suitable examples.
- What is the difference between a class and interface ?
 Write a program to illustrate the implementation of multiple inheritances through interfaces.
- 4. (a) What do you understand by console Input/Output?

 How is it incorporated in a Java program?
 - (b) Write a program in Java, which will read a text and count all occurrences of a particular word.
- 5. What is Internet addressing? Explain the role of internet addressing in Java.

Section-B

(Short Answer Type Questions) $4 \times 8 = 32$

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.

A-840/MCS-508

- Explain the concept of polymorphism with the help of a program.
- 2. Describe the various data types used in Java with suitable examples.
- 3. Define Package. What are the different types of packages used in Java?
- 4. Define Array. Write a program to sort an array in descending order.
- 5. What is Inter Thread Communication ? How do you communicate between two threads ?
- 6. Define different string operations used in Java.
- 7. Explain how you create user interface in Java.
- 8. Write short notes on:
 - (a) Encapsulation
 - (b) Expressions
 - (c) Synchronization
 - (d) TCP/IP sockets
