P-881

Total Pages: 3 Roll No.

MCS-508

Programming in JAVA

(MCA/MSCIT)

2nd / 4th 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.

 $(2 \times 19 = 38)$

1. What is the purpose of declaring exceptions? How do you declare an exception and where? Can you declare multiple exceptions in a method declaration?

- **2.** Why do you need multithreading? How can multiple threads run simultaneously in a single processor system?
- **3.** What is Polymorphism? What is dynamic binding? What are the advantages of dynamic binding? Give suitable example.
- **4.** What is class? Declare a class having following data member: roll number, marks in 5 subjects. It also includes member functions to do the following: initializes the data members, computes total marks and average marks, display data members, total marks and average marks. Create a swing applet to input above mentioned data members.
- **5.** (a) What is interface in Java? How many interfaces can a class implement?
 - (b) What is Java servlets and Java Server Pages? Explain.

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. What do you understand by abstraction and encapsulation?

- **2.** What are the different primitive data type of JAVA?
- **3.** What is vector in Java? Differentiate between vector and array in Java.
- **4.** What do you understand by selection statement and iteration statement?
- **5.** What is Abstract class? Explain by giving example.
- **6.** What is Layout manager? Explain by giving example.
- **7.** What do understand by thread synchronization? Give example.
- **8.** What is TCP/IP Sockets? Explain.