C971

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MCA-16/M. SC (IT)-13

Programming in Java

Master of Computer Applications/ Master of Science in Information Technology (MCAMSc.IT-11/12/16/17)

Fourth Semester Examination, 2022 (June)

Time: 2 Hours] Max. Marks: 80

Note: This paper is of Eighty (80) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION-A

(Long Answer Type Questions)

Note: Section 'A' contains Five (05) long answer type questions of Twenty (20) marks each. Learners are required to answer any Two (02) questions only.

 $(2 \times 20 = 40)$

1. Explain the component of JVM with neat diagram. Explain the features of JAVA also.

- **2.** Explain the following terms: Applet viewer, CSS, Super and final, AWT, Swing.
- **3.** Explain the following terms with respect to exception handling. Also write the example for everyone: Try, Catch, Throw, Finally.
- **4.** Explain the JDBC architecture and JDBC drivers.
- **5.** Explain with example the comparison of swing and AWT control in JAVA.

SECTION-B

(Short Answer Type Questions)

Note: Section 'B' contains Eight (08) short answer type questions of Ten (10) marks each. Learners are required to answer any Four (04) questions only. (4×10=40)

- **1.** Give the practical example where you will find it suitable to implement polymorphism.
- **2.** What is the difference between C++ and JAVA?
- **3.** Write a simple JAVA program to calculate the number of objects created by a particular class.
- **4.** Explain the difference between overloading and overriding in JAVA through a suitable example.

- **5.** Explain the primitive data types with example in JAVA. Explain their size, range and other details also.
- **6.** What is Applet? How it is differ from Application? Explain.
- **7.** Write a program to implement the concept of multilevel inheritance.
- **8.** Why do we need to use vectors? Explain with the help of an example.