D 94109

(Pages : 2)

FIRST SEMESTER M.C.A. (REGULAR) DEGREE EXAMINATION, NOVEMBER 2020

M.C.A.

MCA 20 102—PROGRAMMING IN JAVA

(2020 Syllabus Year)

Time : Three Hours   Maximum : 100 Marks

Answer any five full questions.
Each question carries 20 marks.

1. (a) Explain the features of object oriented programming comparing with procedure oriented programming.

    (8 marks)

    (b) Explain the structure of Java programme with various data types available in Java.

    (12 marks)

2. (a) Write a Java program to calculate the area of different shapes namely circle, rectangle, and triangle using the concept of method overloading.

    (10 marks)

    (b) Explain parameter passing in Java, with suitable examples.   (5 marks)

    (c) Describe the use of constructor in Java, with suitable examples.   (5 marks)

3. (a) What is exception ? List any four exception classes in Java. Explain various exception handling keywords in Java, with examples.

    (10 marks)

    (b) Explain life cycle of thread in detail.   (10 marks)

4. (a) Explain event handling in Java.   (5 marks)

    (b) Compare swing and AWT in Java.   (5 marks)

    (c) Write an applet which displays the character when a key is typed using event handling mechanism.

    (10 marks)

5. (a) Explain the steps in connecting Java program to database, with example. (10 marks)

    (b) Explain the methods used for TCP/IP client and server sockets connections.

    (10 marks)

6. (a) Write an applet which displays the x-y co-ordinates of mouse, when it is clicked. Use event handling mechanism.

    (6 marks)

Turn over

(b) Explain the use of graphics class in Java.

(4 marks)

(c) What are the advantages of using Swing API ? List any five containers and components available in Swing API.

(10 marks)

7. (a) Illustrate the usage of different types of JDBC drivers available in Java with example programme statements.

(10 marks)

(b) Explain the JDBC architecture with a diagrammatic representation.

(10 marks)

[5 × 20 = 100 marks]