MASTER OF COMPUTER APPLICATION
Third Semester (Repeat)
PROGRAMMING WITH JAVA
(MCA - 14)

Duration: 3Hrs.   **Full Marks: 70**

Part-A (Objective) =20
Part-B (Descriptive) =50

(PART-B: Descriptive)

Duration: 2 hrs. 40 mins.   **Marks: 50**

Answer any *four* from *Question no.* 2 to 8
Question no. 1 is compulsory.

1. What is an applet? How do applets differ from application programs? Write an applet program to find sum of two numbers.   (2+3+5=10)

2. What is an exception? Explain the use of the keywords "throw" and "throws". Write a java program using try and catch to handle an arithmetic exception divide by zero.   (1+4+5=10)

3. What are the foundation classes? What is swing? Write a program using Swing components to create a GUI for asking "What is your hobby?". There are five checkbox options are – Reading, Music, Painting, Movies, and Dancing.

                                                        (2+2+6=10)

4. What is the use of sockets? What are the types of sockets? Write a program that connect to a "whois" port on the InterNIC server, sends the command-line argument down the socket, and then prints the data that is returned.   (2+2+6=10)

5. What is a constructor? Write a java program to implement constructor and its use. What is inheritance and how does it help us create new classes quickly?

                                                        (2+3+5=10)

6. Explain the use of "final" keyword in java. What is an interface? Declare an interface named Callback, which has a method callback(). Write a java program to declare a class which will implement interface Callback. (2+3+5=10)

7. What do you mean by thread in java? How threads are created in java? Write a java program to create a new thread implementing the Runnable interface. (2+2+4=10)

8. Explain how AWT is different from Swing? Write a java program to implement a simple calculator (addition, subtraction, multiplication and division). (4+6=10)

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Duration: 20 minutes   **Marks – 20**

(PART A - Objective Type)

I. Choose the correct answer: **1×20=20**

1. AWT stands for…………….

   A. Application with Types

   B. A Web Toolkit

   C. Absolutely wonderful toolkit

   D. Abstract Windows Toolkit

2. Which among the following is the compulsory section of java program?

   A. package Statement.

   B. import Statement

   C. class declaration section

   D. Documentation section

3. The command javac

   A. Convert a java program into binary code.

   B. Convert a java program into byte code.

   C. Convert a java program into machine language.

   D. None of the above.

4. What is the name of the method used to start a thread execution?

   A. init();   B. start();   C. run();   D. resume();

5. In how many states thread can be explained?

   A. 4   B. 5   C. 3   D. 2

6. JVM stands for

    A. Java Verified Machine

    B. Java Virtual Machine

    C. Java Very Large Machine

    D. Java Very Small Machine

7. JRE stands for

    A. Java Real Environment

    B. Java Real Enterprise

    C. Java Runtime Environment

    D. None of the above

8. Which of the following statements about the Java language is true?

    A. Java supports only procedural approach towards programming.

    B. Both procedural and object oriented programming are supported in java.

    C. Java supports only object oriented programming approach.

    D. None of the above.

9. Default priority value of a thread class for NORM_PRIORITY is.............................

10. Which of these packages contains classes and interfaces for networking?

    A. java.io

    B. java.util

    C. java.net

    D. java.netwok

11. Which of these is a protocol for breaking and sending packets to an address across a network?

    A. TCP/IP

    B. DNS

    C. Socket

    D. Proxy Server

12. How many bits are in a single IP address?

   A. 8   B. 16   C. 32   D. 64

13. Which of these classes is not a member class of java.io package?

   A. String   B. StringReader   C. Writer   D. File

14. Which of these classes is not related to input and output stream in terms of functioning?

   A. File   B. Writer   C. InputStream   D. Reader

15. The default layout of an Applet is BorderLayout.

   A. True   B. False

16. We pass parameters to an applet through the <param> tag in the HTML file.

   A. True   B. False

17. Which method is used to print a message "Hello" on the screen using an applet?

   A. g.drawText("Hello", 10, 10);

   B. g.drawMessage("Hello",10,10);

   C. g.drawString("Hello", 10, 10);

   D. g.printLine("Hello", 10,10);

18. Which of the following is a method of the ActionListener interface?

   A. actionDone()   B. actionTaken()

   C. actionPerformed()   D. actionFinished()

19. Packages in java are similar to class libraries.

   A. True   B. False

20. The "finally" statement can be used only in conjunction with a *try* block.

   A. True   B. False

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