**[Total No. of Questions - 9] [Total No. of Printed Pages - 3]**
**(2125)**

**15608**

**MCA 2nd Semester Examination**

**Object Oriented & Visual Programming Using Java (NS)**

**MCA-202**

**Time : 3 Hours** **Max. Marks : 60**

*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

**Note :** Attempt five questions in all. Question no. 9 in section E is compulsory. Rest attempt one question from the sections A, B, C & D.

## SECTION - A

1. (a) What is OOP's paradigm? (2)

   (b) Describe the security and portability features of Java. (2)

   (c) Write a program in Java that accepts two strings and checks out whether the two strings are same or not. Also discuss any 2 string handling library functions in Java. (6)

OR

2. (a) Write a program in Java that invokes overloaded Constructor through this ( ). (6)

   (b) Discus the architecture of JVM. (4)

**[P.T.O.]**



## SECTION - B

3. (a) Write a program in Java to implement the multilevel inheritance, also show the use of super keyword in multilevel inheritance. (6)

   (b) How exceptions are handled in Java? (4)

OR

4. (a) What is Class Path? Discus its role in compiling a Java program through command prompt. (4)

   (b) Differentiate between interface and abstract class in Java. (3)

   (c) Discus the role of try and catch block for exception handling in Java. (3)

## SECTION - C

5. Write a program in Java that write/read whole object to / from a file using serialization and de-serialization process. (10)

OR

6. (a) Create an applet in Java, that accepts two numbers as input and produces power (a, b) as output. (6)

   (b) Why do applets not need a main() function. (4)

## SECTION - D

7. (a) List out AWT classes in Java. What are their applications? (6)

   (b) Discus how AWT controls make easier way to collect inputs and produce output. (4)

OR

8. Write a program in Java to show the handling of mouse events in frame window. (10)

## SECTION - E

9. Explain the following:

   (a) Constructor.

   (b) JVM.

   (c) Byte Code.

   (d) Super class constructor.

   (e) Package.

   (f) Deadlock.

   (g) Alive() in thread class.

   (h) AWT.

   (i) Layout Manager.

   (j) Dynamic method dispatch. (2×10=20)