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Total No. of Questions: 09

Total No. of Pages: 02

MCA (Sem. 3)
JAVA PROGRAMMING
Subject Code: MCA-304
Paper ID: 74076

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

1. **SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students has to attempt any ONE question from each SECTION.**
2. **Section E is COMPULSORY consisting of TEN questions carrying TWO marks each.**

SECTION A

1. What is String Buffer class? Why is it used? Give example.
2. What is Object Oriented Programming? What are silent features of it? Explain the structure of Java program.

SECTION B

3. What is interface? How do you implement an interface?
4. How Inheritance is useful in Object Oriented Programming? How multiple inheritance is implemented through interfaces?

SECTION C

5. What is an Applet? How do applets differ from application programs? How arguments can be passed to an applet?
6.
 - a) Explain the Graphics Class. Give implementation of 2D Transformation on Object.
 - b) Write notes on: Layouts, Panels, Swings and JDBC.

SECTION D

7. What is Servlet? Explain different types of servlets with suitable examples.
8.
 - a) Write a short note on Socket Programming?
 - b) Distinguish between TCP and UDP Sockets.

SECTION-E

9. Write short notes on following with help of example/diagram if needed :

- a) How are arrays declared in JAVA?
- b) doGET method
- c) JSP
- d) Method Overriding
- e) Final Classes
- f) Garbage Collection
- g) User defined Exceptions
- h) HttpServlet
- i) Dynamic Binding
- j) Java Development Kit