

2/31

**1104E134**

Candidate's Seat No : \_\_\_\_\_

**B.Sc. Sem.-6 Examination**

**CC-308**

**Computer Science**

**April-2025**

**Time : 2-30 Hours]**

**[Max. Marks : 70**

**Q:1 Write following [14]**

- [a] Explain the life cycle of a Java Applet with an example.
- [b] Discuss the Applet class and how to invoke an applet in a Java program.

**OR**

- [a] How can parameters be passed to an Applet? Provide an example.
- [b] Explain the AWT class and how it is used in Java Applets.

**Q:2 Write following [14]**

- [a] Explain the concept of Event Handling in Java and its significance.
- [b] Discuss Button, Checkbox, and Radio Button event handling with examples.

**OR**

- [a] Explain Mouse and Keyboard event handling in Java AWT with coding examples.
- [b] Describe how to handle Text Field, Text Area, List, and Scrollbar events in Java.

**Q:3 Write following [14]**

- [a] What is Java Swing? Explain its class hierarchy and key components (JFrame, JButton, JTextField, etc.).
- [b] Explain different layout managers in Java Swing with examples.

**OR**

- [a] Describe the architecture of JDBC and how Java interacts with databases.
- [b] Explain the life cycle of a Java Servlet and its role in server-side programming.

(2/3)

E134-2

**Q:4 Write following**

**[14]**

[a] Explain the role of JDBC API classes and interfaces. How is DSN created for connecting Java applications to a database?

[b] Explain the role of JDBC API classes and interfaces. How is DSN created for connecting Java applications to a database?

**OR**

[a] Discuss the functionality of Request and Response objects in Java Servlets. How are form values and query strings handled using these objects?

[b] What are Servlet Context and ServletConfig? Explain their use along with initialization parameters and inter-servlet communication.

**Q:5 Attempt any seven**

**[14]**

1 AWT stands for \_\_\_\_\_

2 JDBC stands for \_\_\_\_\_

3 GUI stands for \_\_\_\_\_

4 HTML stands for \_\_\_\_\_

5 The base class for all applets is the \_\_\_\_\_ class.

6 The \_\_\_\_\_ method is called only once in the Applet life cycle to perform initialization.

7 In Swing, the top-level container class is \_\_\_\_\_.

8 The method used to establish a connection in JDBC is \_\_\_\_\_.

9 The \_\_\_\_\_ method of a Servlet is invoked when the Servlet is first loaded.

10 What is the purpose of the paint(Graphics g) method in a Java Applet?

11 Name two layout managers used in Java Swing.

12 What is the role of the init() method in the Applet life cycle?

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