

**Scheme – E**  
**Sample Question Paper**

**Course Name : Computer Engineering Group**

**Course Code : CO/CM/IF/CD**

**Semester : Sixth for CO/CM/IF and Seventh for CD**

**12259**

**Subject Title : Advanced Java Programming**

**Marks : 100**

**Time: 3 Hours**

**Instructions:**

1. All questions are compulsory.
2. Illustrate your answers with neat sketches wherever necessary.
3. Figures to the right indicate full marks.
4. Assume suitable data if necessary.
5. Preferably, write the answers in sequential order.

**Q.1 A) Attempt any THREE of the following:**

**12 Marks**

- a) List any eight controls from java.awt package.
- b) Give the use of URL class and also give the syntax of two constructors of URL class.
- c) State the function of four types of JDBC drivers.
- d) Give sequential steps to use JTree in an applet.

**Q.1 B) Attempt any ONE of the following:**

**06 Marks**

- a) Write a program to demonstrate use of following methods of URL class
  - i) `getProtocol()`
  - ii) `getPort()`
  - iii) `getHost()`
  - iv) `getAddress()`
- b) Write a program to demonstrate passing and retrieving values of parameter to a servlet.

**Q.2 Attempt any TWO of the following:**

**16 Marks**

- a) Write a program to create an applet that will accept values of three test marks i.e. test1, test2, test3, each out of 25. The user will enter the marks in three separate text fields. The applet will have a button labeled “Find average”. When the user will click on the button, the average of test marks will be displayed in the fourth text field.
- b) Write a program to demonstrate the use of Checkbox and CheckboxGroup class.
- c) Give the use of ServerSocket and Socket class. Describe the steps that are required to establish communication between client and server sockets.

**Q. 3 Attempt any FOUR of the following:**

**16 Marks**

- a) Explain the use of following methods of List class along with syntax.
  - i) getItemCount()
  - ii) select()
  - iii) getItem()
  - iv) add()
- b) What is layout manager? Describe the use of GridLayout manager.
- c) Give the use of following methods of Statement interface.
  - i) executeQuery()
  - ii) executeUpdate()
- d) Give the use and syntax of record navigation methods of ResultSet class.
- e) Differentiate between AWT and Swing on the basis of working and application.

**Q.4 A) Attempt any THREE of the following:**

**12 Marks**

- a) What are dialog boxes? Give four types of dialog boxes.
- b) Define protocol? List four protocols.
- c) Describe three-tier database design with proper sketch.
- d) Give the use of ImageIcon class along with syntax of its constructor.

**Q.4 B) Attempt any ONE of the following:**

**06 Marks**

- a) Explain how to set font of an applet using Font class. Give suitable code segment to demonstrate.
- b) Define and state the function of following terms
  - i) Web Server
  - ii) Protocol

**Q.5 Attempt any TWO of the following:**

**16 Marks**

- a) Write a code segment to create connection to an access database through a java application and display list of tables in the database. Assume suitable data.
- b) Write a program to demonstrate the use of tabbed pane. Use suitable controls on each tab.
- c) Give steps to create simple servlet and also write program to demonstrate.

**Q.6 Attempt any FOUR of the following:**

**16 Marks**

- a) What is internet addressing? Give the purpose of InetAddress class.
- b) Explain the working of JDBC-ODBC bridge.
- c) Describe the use of JTable class
- d) Give steps to display icon on a label and a button using swing.
- e) List four interfaces in javax.servlet package.