



PROGRAMMING IN JAVA

Assignment 08

TYPE OF QUESTION: MCQ

Number of questions: 10

Total marks: $10 \times 1 = 10$

QUESTION 1:

What does AWT stand for in Java?

- a. Applet Windowing Toolkit
- b. Abstract Window Toolkit
- c. Absolute Windowing Toolkit
- d. Amazing Window Toolkit

Correct Answer:

- b. Abstract Window Toolkit

Detailed Solution:

The Abstract Window Toolkit (AWT) is Java's original platform-dependent windowing, graphics, and user-interface widget toolkit, preceding Swing.



QUESTION 2:

In Java, what is the purpose of a Card Layout?

- a. To create a card game interface
- b. To arrange components in a card-like fashion
- c. To manage multiple panels within a single container
- d. To display images of cards

Correct Answer:

- c. To manage multiple panels within a single container

Detailed Solution:

Card Layout allows you to manage multiple panels within a single container, where only one panel is visible at a time.



QUESTION 3:

Which layout manager divides the container into five regions: North, South, East, West, and Center?

- a. **Border Layout**
- b. Grid Layout
- c. Flow Layout
- d. Card Layout

Correct Answer:

- a. **Border Layout**

Detailed Solution:

Border Layout divides the container into five regions, and components can be added to each region:
North, South, East, West, and Center.



QUESTION 4:

In Java, what is the primary purpose of a layout manager?

- a. To manage memory allocation
- b. To arrange GUI components within a container
- c. To handle exception handling
- d. To control database connections

Correct Answer:

- b. To arrange GUI components within a container

Detailed Solution:

A layout manager in Java is responsible for arranging and positioning GUI components within a container.

QUESTION 5:

`void setBounds(int x, int y, int width, int height);`

What will be the output of the Java code given below?

```
import java.awt.*;
import java.awt.event.*;

public class ButtonExample extends Frame {
    public static void main(String[] args) {
        ButtonExample frame = new ButtonExample();
        Button b = new Button("Programming in Java - 2024");
        b.setBounds(30, 50, 80, 30);
        frame.add(b);
        frame.setSize(300, 200);
        frame.setLayout(null);
        frame.setVisible(true);
    }
}
```

- a. Compilation error
- b. An empty frame with no button
- c. A frame with a button "Programming in Java - 2024" at coordinates (30, 50)
- d. A frame with a button, but not at the specified coordinates

Correct Answer:

- c. A frame with a button "Programming in Java - 2024" at coordinates (30, 50)

Detailed Solution:

The code creates a frame and adds a button with the label "Programming in Java - 2024" at coordinates (30, 50).



QUESTION 6:

Which layout manager arranges components in a top-to-bottom flow, adding them to the next available position?

- a. Grid Layout
- b. Flow Layout**
- c. Border Layout
- d. Card Layout

Correct Answer:

- b. Flow Layout**

Detailed Solution:

Flow Layout arranges components in a top-to-bottom, left-to-right flow, adding them to the next available position in the container.



QUESTION 7:

What is the significance of AWT components being heavyweight?

- a. They have higher memory requirements
- b. They are slower in performance
- c. They are dependent on the underlying operating system
- d. They are easier to customize

Correct Answer:

- c. They are dependent on the underlying operating system

Detailed Solution:

AWT components being heavyweight means they rely on the native components of the underlying operating system, which can affect their appearance and behavior.



QUESTION 8:

Which AWT concept allows you to handle events such as button clicks or mouse movements?

- a. **Event Handling**
- b. Function Overloading
- c. Mouse Manager
- d. GUI Processing

Correct Answer:

- a. **Event Handling**

Detailed Solution:

Event Handling in AWT enables the response to user actions, such as button clicks or mouse movements, in a graphical user interface.



QUESTION 9:

Which layout manager organizes components in a grid, with each cell of the grid containing a component?

- a. Flow Layout
- b. **Grid Layout**
- c. Border Layout
- d. Card Layout

Correct Answer:

- b. Grid Layout

Detailed Solution:

Grid Layout organizes components in a grid, and each cell of the grid contains a component. Components are added in a left-to-right, top-to-bottom order.

QUESTION 10:

What is the layout manager used in the Java code given below?

```
import java.awt.*;

public class LayoutExample extends Frame {
    public static void main(String[] args) {
        LayoutExample frame = new LayoutExample();
        Button b1 = new Button("Button 1");
        Button b2 = new Button("Button 2");
        Button b3 = new Button("Button 3");
        frame.add(b1);
        frame.add(b2);
        frame.add(b3);
        // create a flow layout
        frame.setLayout(new FlowLayout());
        frame.setLayout(new GridLayout(2, 2));
        frame.setSize(300, 200);
        frame.setVisible(true);
    }
}
```

- a. **Grid Layout**
- b. Border Layout
- c. Flow Layout
- d. Card Layout

Correct Answer:

- a. **Grid Layout**

Detailed Solution:

The code sets the layout manager of the frame to a 2x2 grid layout using `frame.setLayout(new GridLayout(2, 2))`. The `FlowLayout` gets overridden by the `GridLayout`, you can try to comment out the `GridLayout` line to see the difference.