A. Vocabulary

Term	Question	Answer
x.getSource()	a) What is x's "data type"? b) What does this method return?	a) b)
JSlider	What event handler method corresponds to this object?	
TextArea(2, 3)	What is 2 – (a) data type and (b) what it represents?	a) b)
drawImage()	When this method has 10 parameters, the second to last parameter is (a) what data type and (b) represents what?	a) b)
setBounds(x, y, z, w)	z is (a) data type and (b) represents what?	a) b)
jpg and gif	Compared to jpg, gif is more ___ (what?) BE SPECIFIC.	
Scrollbar	This component creates what kind of event?	
Key Events	Describe one Key Event that can be typed, but not pressed.	
Focus	What are the two event handler methods for Focus?	1) 2)
Components	List two components that do not have listeners but visibly show on the screen.	1) 2)
Layouts	What is the default layout for (a) a JPanel? (b) a JApplet?	a) b)

B. Reading Comprehension – Layout
   Read the following programming portion for a JApplet window with width 500 pixels and height 700 pixels, and sketch the output. The program has been simplified for ease of reading for only layout information.

```
public JApp extends JApplet …{
        public void init(){
                One uno = new One();
                Two dos = new Two();
                Three tres = new Three();
                getContentPane().add(uno. BorderLayout.NORTH);
                getContentPane().add(dos. BorderLayout.SOUTH));
                getContentPane().add(tres. BorderLayout.CENTER);
        }
class One extends JPanel…{
        One(){
                setLayout(new GridLayout(1, 2));
                Four a = new Four();
                add(a);
                Four b = new Four();
                add(b);
        }
}
class Two extends JPanel…{
        Two(){
                setLayout(new GridLayout(3, 1));
                Five m = new Five();
                add(m);
                Five n = new Five();
                add(n);
                Four c = new Four();
                add(c);
        }
}
class Three extends JPanel…{
        Three(){
                JSlider js = new JSlider(1, 15, 12);
                add(js);
        }
}
class Four extends JPanel…{
        Four(){
```

```
                    JButton [ ] jb = new JButton[4];
                    for(int x=0; x<4; x++){
                            jb[x ] = new JButton("" + x)
                            add(jb);
            }
    }
    class Five extends JPanel…{
            Five(){
                    JTextField tf = new JTextField("radish", 3);
                    add(tf);
            }
    }
    }
```

C. Program

Write a program that accomplishes the following:

- The program should cause the following screen to load <insert picture>

- The interactive radio buttons should be in a button group, so only one can be picked at any one time. There are three radio buttons to set foreground color (use setForeground()), of the text area. Colors are red, green, or blue (constants of the Color class).
- The scrollbar should be used to select the size of the font displayed, and should range from 10 to 25 (the value of the bar should be the same as the font size).
- The text area should load a poem. A method called loadPoem() has been written for you, and upon being called, will return a String of a poem.
- To load a poem, the user should use the button labeled "Press for a random quote."