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| **Final Exam** | | | |
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| 1. | In the instruction (assume 'g' is a AWT Graphics object):   |  | | --- | | g.drawString("Hello World!", 10, 20); |   Which of the following is true? | | |
|  |  | (a) | The text "Hello, World!" would be fit in a total width of 10 pixels, and height of 20 pixels |
|  |  | (b) | The first character of the text "Hello, World!" would have its top left corner at X = 10 pixels, Y = 20 pixels measured from the top left corner of the display area. |
|  |  | (c) | The first character of the text "Hello, World!" would have its bottom left corner at X = 10 pixels, Y = 20 pixels measured from the top left corner of the display area. |
|  |  | (d) | The text "Hello, World!" would be centered around the point X = 10 pixels, Y = 20 pixels measured from the top left corner of the display area. |
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| 2. | In the instruction (assume 'g' is a AWT Graphics object):   |  | | --- | | g.drawLine(30, 40, 50, 60); |   Which of the following is true? | | |
|  |  | (a) | It draws a line from the point (30, 40) such that the end point is 50 pixels to the right, 60 pixels down from (30, 40). |
|  |  | (b) | It draws a line from the point (30, 40) such that the end point is at (50, 60). |
|  |  | (c) | It draws a line from the point (30, 50) such that the end point is at (40, 60). |
|  |  | (d) | It draws a line from the point (30, 40) to span a width of 50 pixels, and height of 60 pixels. |
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| 3. | In the instruction (assume 'g' is a AWT Graphics object):   |  | | --- | | g.drawRect(10, 20, 30, 40); |   Which of the following is true? | | |
|  |  | (a) | It draws a rectangle with its top left corner at (10, 20) and bottom right corner at (30, 40) |
|  |  | (b) | It draws a rectangle with its top left corner at (10, 20) and bottom right corner at (40, 60) |
|  |  | (c) | It draws a rectangle with its bottom left corner at (10, 20) and top right corner at (30, 40) |
|  |  | (d) | It draws a rectangle with its bottom left corner at (10, 20) and top right corner at (40, 60) |
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| 4. | In the instruction (assume 'g' is a AWT Graphics object):   |  | | --- | | g.drawOval(10, 20, 30, 40); |   Which of the following is true? | | |
|  |  | (a) | It draws an oval centered at (10, 20) such that it fits in a rectangle of width = 30 pixels, height = 40 pixels. |
|  |  | (b) | It draws an oval such that it fits in a rectangle with its top left corner at (10, 20) and bottom right corner at (30, 40). |
|  |  | (c) | It draws an oval such that it fits in a rectangle with its bottom left corner at (10, 20), width = 30 pixels and height = 40 pixels. |
|  |  | (d) | It draws an oval such that it fits in a rectangle with its top left corner at (10, 20), width = 30 pixels and height = 40 pixels. |
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| 5. | Suppose 'g' is a AWT Graphics object, and you want to set the font on it to Sans Serif, bold, size 18. Which of the following lines would accomplish this? | | |
|  |  | (a) | g.setFont(new Font(Font.SANS\_SERIF, Font.BOLD, 18)); |
|  |  | (b) | g.setFont(Font.SANS\_SERIF, Font.BOLD, 18); |
|  |  | (c) | g.setFont(SANS\_SERIF, BOLD, 18); |
|  |  | (d) | g.setFont(new Font(SANS\_SERIF, BOLD, 18)); |
|  | | | |
| 6. | What method would you call on a JTextField object to get the text entered by the user? | | |
|  |  | (a) | getTextFieldValue() |
|  |  | (b) | getInputText() |
|  |  | (c) | getInput() |
|  |  | (d) | getText() |
|  | | | |
| 7. | What method would you call on an ActionEvent object to get the action command? | | |
|  |  | (a) | getActionEventCommand() |
|  |  | (b) | getActionEventValue() |
|  |  | (c) | getActionCommand() |
|  |  | (d) | getActionPerformed() |
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| 8. | What interface does java.awt.WindowAdapter implement? | | |
|  |  | (a) | WindowListener |
|  |  | (b) | EventListener |
|  |  | (c) | ActionListener |
|  |  | (d) | MouseListener |
|  | | | |
| 9. | What interface does java.awt.MouseAdapter implement? | | |
|  |  | (a) | WindowListener |
|  |  | (b) | MouseListener |
|  |  | (c) | ActionListener |
|  |  | (d) | EventListener |
|  | | | |
| 10. | Why is it better to use an inner class that extends from MouseAdapter than to have your Frame sub-class implement MouseListener? (select all that apply)   |  |  |  | | --- | --- | --- | |  | (i) | MouseAdapter implements all methods in MouseListener, and you only need to override the ones you want. | |  | (ii) | MouseAdapter can listen to keyboard events as well as mouse events. | |  | (iii) | If the Frame sub-class implements MouseListener, it needs to implement every method in MouseListener. | |  | (iv) | If the Frame sub-class implements MouseListener, it must be declared abstract. | | | |
|  |  | (a) | All of the above |
|  |  | (b) | (i), (ii) and (iii) only |
|  |  | (c) | (ii) and (iv) only |
|  |  | (d) | (i) and (iii) only |
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| 11. | Suppose you are writing code inside your Frame sub-class.  What would the call: setSize(250, 200); mean? | | |
|  |  | (a) | The Frame needs to have width of 250 pixels and height of 200 pixels |
|  |  | (b) | The Frame needs to have height of 250 pixels and width of 200 pixels |
|  |  | (c) | The top left corner of the Frame needs to be at a distance 250 pixels to the right, and 200 pixels down from the top left corner of the display area. |
|  |  | (d) | The top left corner of the Frame needs to be at a distance 250 pixels down, and 200 pixels to the right of the top left corner of the display area. |
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| 12. | Suppose you are writing code inside your Frame sub-class. Which method call below would make the Frame visible? | | |
|  |  | (a) | setVisible() |
|  |  | (b) | setVisible(true) |
|  |  | (c) | this.setVisible() |
|  |  | (d) | setVisible(false) |
|  | | | |
| 13. | What is/are the main drawback(s) of using FlowLayout (select all that apply)?   |  |  |  | | --- | --- | --- | |  | (i) | As the user resizes the window, the components wrap around to the next row. | |  | (ii) | It gives limited power in laying out the components in more complex configurations. | |  | (iii) | You can use it only on Panels inside a Frame. | |  | (iv) | The components being laid out must all be the same size. | | | |
|  |  | (a) | All of the above |
|  |  | (b) | (i) and (iv) only |
|  |  | (c) | (i) and (ii) only |
|  |  | (d) | (ii) and (iii) only |
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| 14. | What is/are the differences between an AWT radio button and a Swing radio button (select all that apply)?   |  |  |  | | --- | --- | --- | |  | (i) | The AWT radio button must use the RadioButton type. | |  | (ii) | The Swing radio button must use JRadioButton type | |  | (iii) | The AWT radio button must belong to a CheckboxGroup, whereas the Swing JRadioButton object must belong to a ButtonGroup object. | |  | (iv) | To get the selected radio button in a CheckboxGroup, you need to call getSelectedCheckbox() on the CheckboxGroup object. | |  | (v) | To get the selected radio button in a ButtonGroup, you need to call getSelectedRadioButton() on the ButtonGroup object. | | | |
|  |  | (a) | All of the above |
|  |  | (b) | (i), (ii) and (v) only |
|  |  | (c) | (i), (ii) and (iii) only |
|  |  | (d) | (ii), (iii) and (iv) only |
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| 15. | Which of the following is/are true (select all that apply)?   |  |  |  | | --- | --- | --- | |  | (i) | setJMenuBar() in JFrame takes an object of JMenuBar | |  | (ii) | The add() method in JMenuBar takes an object of JMenu (or its sub-class). | |  | (iii) | The add() method in JMenu takes an object of type JMenuItem. | |  | (iv) | As a default, the action command of a JMenuItem object is same as its label text sent to its constructor. | | | |
|  |  | (a) | All of the above |
|  |  | (b) | (i) and (iii) only |
|  |  | (c) | (i) and (iv) only |
|  |  | (d) | (ii) and (iii) only |
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| 16. | Which of the following is true about showMessageDialog() (select all that apply)?   |  |  |  | | --- | --- | --- | |  | (i) | It has a return type of void. | |  | (ii) | It is static. | |  | (iii) | It displays a message to the user. | |  | (iv) | It can't display a text field where the user can type a response. | | | |
|  |  | (a) | All of the above |
|  |  | (b) | (i) and (iv) only |
|  |  | (c) | (i), (ii) and (iv) only |
|  |  | (d) | (i), (iii) and (iv) only |
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| 17. | Suppose you want to create an input dialog using JOptionPane, such that it accepts the age of user. Which of the following would compile in this case? | | |
|  |  | (a) | int age = JOptionPane.showInputDialog("Please enter your age."); |
|  |  | (b) | int age = JOptionPane.showInputDialog(this, "Please enter your age."); |
|  |  | (c) | int age = 0; JOptionPane.showInputDialog(this, "Please enter your age.", age); |
|  |  | (d) | String age = JOptionPane.showInputDialog(this, "Please enter your age."); |
|  | | | |
| 18. | Suppose you want to display a confirmation dialog using JOptionPane, such that it shows the options "Yes", "No" and "Cancel", and then write an 'if' statement header that tests if the user chose "Yes". Which of the following 'if' statement headers would work in this case? | | |
|  |  | (a) | if (JOptionPane.showConfirmDialog("Are you sure?").equals(JOptionPane.YES\_OPTION)) |
|  |  | (b) | if (JOptionPane.showConfirmDialog(this, "Are you sure?").equals(JOptionPane.YES\_OPTION)) |
|  |  | (c) | if (JOptionPane.showConfirmDialog(this, "Are you sure?") == JOptionPane.YES\_OPTION) |
|  |  | (d) | if (JOptionPane.showConfirmDialog(this, "Are you sure?").equals("Yes")) |
|  | | | |
| 19. | Which of the following classes does Applet inherit from? | | |
|  |  | (a) | Window |
|  |  | (b) | Frame |
|  |  | (c) | Canvas |
|  |  | (d) | Panel |
|  | | | |
| 20. | Which of the following does JApplet inherit from? | | |
|  |  | (a) | Applet |
|  |  | (b) | Frame |
|  |  | (c) | Window |
|  |  | (d) | Canvas |
|  | | | |
| 21. | Suppose you want to give read, write and execute permission to all files under the /home/lesson1 directory. Which of the following would instantiate a FilePermission object to accomplish this? | | |
|  |  | (a) | FilePermission perm = new java.io.FilePermission("/home/lesson1/\*", "read", "write", "execute"); |
|  |  | (b) | FilePermission perm = new java.io.FilePermission("/home/lesson1/\*", "read,write,execute"); |
|  |  | (c) | FilePermission perm = new java.io.FilePermission("/home/lesson1/\*", "read/write/execute"); |
|  |  | (d) | FilePermission perm = new java.io.FilePermission("/home/lesson1/\*", "rwe"); |
|  | | | |
| 22. | Which are the valid actions for a SocketPermission object? | | |
|  |  | (a) | read, write, accept, connect, listen |
|  |  | (b) | read, write, listen, and resolve |
|  |  | (c) | accept, connect, listen, and resolve |
|  |  | (d) | accept, connect, listen, and block |
|  | | | |
| 23. | Suppose you want a BufferedImage type object called "image1" created out of an image file called "image1.gif". Which of the following lines would accomplish this? | | |
|  |  | (a) | BufferedImage image1 = ImageIO.read("image1.gif"); |
|  |  | (b) | BufferedImage image1 = ImageIO.read(new File("image1.gif")); |
|  |  | (c) | BufferedImage image1 = ImageIO.readImage(new File("image1.gif")); |
|  |  | (d) | BufferedImage image1 = ImageIO.readImage("image1.gif"); |
|  | | | |
| 24. | In question 23 above, suppose you are able to create the "image1" object such that it points to "image1.gif", and that you are writing code inside a Canvas sub-class. Also suppose you want to draw the image at X=300 pixels, Y = 150 pixels from top left corner, and width = 50, height = 70 pixels. Which of the following lines would draw the image using the "image1" object? | | |
|  |  | (a) | g.drawImage(image1, 300, 150, 50, 70); |
|  |  | (b) | g.drawImage(this.image1, 300, 150, 50, 70); |
|  |  | (c) | g.drawImage(this, image1, 300, 150, 50, 70); |
|  |  | (d) | g.drawImage(image1, 300, 150, 50, 70, this); |
|  | | | |
| 25. | Suppose you are writing code inside a sub-class of JFrame, which has an attribute called 'lbl' of type JLabel and you want it to display an image file called "iamge1.gif". Which of the following lines would accomplish this? | | |
|  |  | (a) | lbl.setIcon(new Image("image1.gif")); |
|  |  | (b) | lbl.setIcon(new ImageIcon("image1.gif")); |
|  |  | (c) | lbl.setImage(new ImageIcon("image1.gif")); |
|  |  | (d) | lbl.setImageIcon("image1.gif"); |