**Java II Midterm Test (version 2) Name: \_\_Carter Brehm\_\_\_\_\_\_\_\_\_\_\_**

|  |
| --- |
| 1. What modifier distinguishes an instance variable or method from a class variable or method?   **static** |
| 1. Describe the difference between a class variable and an instance variable.   **A class variable is global across every object of that class, while an instance variable is only per instance. For example, a count variable might be made as a class variable to count the amount of Item objects in a list, but each variable in an Item class is only an instance variable, because each Item needs to have it’s own version of the variable.** |
| 1. What class is best used to describe a drive, file, or file path?   **The file class** |
| 1. What package should you import to do ordinary file input/output operations?   **java.io.\*** |
| 1. How many objects are present in this line of code?  **BufferedWriter bw = new BufferedWriter(new FileWriter(“test.txt”));**   **Two. One is of type FileWriter, and it is being included in the construction of a BufferedWriter.** |
| 1. If you want to save an object of a class to a file via serialization, what interface should be implemented in that class?   **Serializable** |
| 1. What data type is used by the input/output classes that have the word “Reader” or “Writer” in their class name?   **Character Streams** |
| 1. What data type is used by the input/output classes that have the word “InputStream” or “OutputStream” in their class name?   **Byte Streams** |
| 1. What are the characteristics of a well-formed XML document?  * **End tag for all start tags** * **Nesting is in order (must end inner tag before ending outer tag)** * **One value for each attribute (<test id=”test” id=”test2”> is wrong)** * **Must have root element** |
| 1. What are the characteristics of a valid XML document?  * **Validates according to DTD or schema** |
| 1. Of the two forms of XML parsing we discussed in class, which is event based?   **SAX** |
| 1. Which of the two forms of XML parsing we discussed in class gathers up all of the data in an XML document and stores it in single object?   **DOM** |
| 1. Which of the two forms of XML parsing we discussed in class is generally more resource efficient?   **SAX** |
| 1. If you want to create a handler class for SAX parsing, what must the class inherit?   **DefaultHandler** |
| 1. In both DOM and SAX parsing, you can create parsers that have additional behaviors beside the default. What are those additional behaviors?   **Validation and Namespacing** |
| 1. What is the class name of the object in DOM parsing which contains all of the data in an XML document?   **Document** |
| 1. What is the difference between a heavy-weight GUI control and a light-weight GUI control?   **Lightweight GUIs only use Java to draw things like buttons and frames, while heavyweight GUIs uses the OS to show these components.** |
| 1. If you instantiate and display a JFrame object – and then try to close it using the X button in the upper right-hand corner – you will have a problem. What is it?   **Closing the JFrame does not end the program, it only hides the frame.** |
| 1. What is the layout manager of the object returned by the JFrame’s “*getContentPane()*” method?   **BorderLayout** |
| 1. What is the default layout manager of a JPanel object?   **FlowLayout** |
| 1. Say you want to display some buttons in a table-like structure. What would be the best layout manager for that?   **FlowLayout** |
| 1. The Color and the Font classes are in what package?   **java.awt** |
| 1. What is the keyword used to inherit an interface into a class?   **Implements** |
| 1. What is the keyword used to inherit a class into another class?   **Extends** |

|  |
| --- |
| 1. What kind of class is the code in the parenthesis of the *addMouseListener()* method?  **addMouseListener(new MouseAdapter(){  public void mousePressed(MouseEvent e)  {  startPt = new Point(e.getX(), e.getY());  }});**   **Anonymous Inner Class** |