You have reserved a date and time to contact your instructor about your DBA. Your instructor and you will go over the DBA he has e-mailed to you. Once you have asked all of the questions about the DBA (if you have any), you then have one hour and 30 minutes to e-mail your answers back to your instructor. Text your instructor that you are finished and have sent him your answers and he will grade your DBA and call you back to go over your results.

You are allowed to use any notes from the course. Good luck!

1. What would happen if you had this line of code in a program? Explain.

    a. super ++;

    b. counter --;

    c. double result;
        result = (int) 18 mod 4 + 2 ^ 3;

        System.out.print (result);

    d. int iNum = 45/100;

        System.out.print (iNum);

2. Java is a strongly typed language. Explain.

3. What four data types will be used most commonly in our course?

4. Explain the difference between the operators used in:

    a. totalSales += ticketPrice;

    b. counter ++;

5. How could you cast the character "a" to its integer ASCII value? What would that value be?

6. How could you cast the integer ASCII value 65 to its character value? What would that value be?

7. Explain some differences between ASCII and Unicode.

8. Why are escape sequences important to master when printing in Java?

9. What is the escape sequence for:

    a. tab

    b. backslash

    c. carriage return

    d. form feed

10.
```
int index = 0;
String phrase = "Hello, Virtual World!";
char symbol = phrase.charAt(index);
System.out.print("The character at the ");
System.out.println(" position is: " + symbol);
```

What do you predict would be printed for each of the following index positions in the **String** literal shown above?

| 0 | 8 | 6 | 10 | 0 | 1 | 9 | 1 | 20 |

11. Using the Java API, what does the String class method length() return? How many parameters does this method require?

12. Where is dot notation used in the programming code below: Explain why it is needed using the words: object, class, method, invoke. Be specific.

```
String phrase = "Four score and seven years ago";
int stringLength = phrase.length();
System.out.println("Length of String: " + stringLength);
System.out.println();
```

13. Write a small segment of actual code that will replace the string "Jon Christian" with "Christian, Jon". (Don't have to declare class, main method…just the specific code needed.)

14. (Fill in blanks) "Think of a class as being a set of _____ and an object as a copy of a _____. Since an object is a copy of a _____ it has its own set of _____ and can call _____ to perform their task using _____ _____."

15. Explain the differences between these two Scanner class methods: next() and nextLine(). You must use the word "token" in your answer and define what "token" is.

16. True or False The <space> is the only delimiter recognized by Java to separate successive tokens. EXPLAIN your answer.

17. True or False   A new Scanner class object must be constructed using the reserved Java word "in" but a String object does not because String is not a class in Java. EXPLAIN your answer.

18. How can you enter these two lines of code as a single line of code?

                              Scanner in;

                              in = new Scanner (System.in);

19. Do TEST 3 in the eIMACS resource. You don't have to send me your answers for this test…I will know b/c I will get an email with your results.

20. Send your instructor your AgeCalculatorV2 class you created in lesson 3.08 in the BlueJ program titled 03.08 Age Calculator