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| **ACCESS Module 3 Test Study Guide** | **Date:10-26-2014** |
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**Directions: Research to locate the answers or complete the coding for the following programs/statements to determine the output. If you can determine the output *without coding*, do that only. If you code to determine output, paste a screen capture of your code and execution in the cell to the right.**

**When completed, save as a Word or PDF document and upload your file to the ACCESS Dropbox.**

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| 1. If String str = "Computer Science", then what is the value of str.indexOf("sci"); |  |
| 1. If String str = "Computer Science", then what is the value of str.substring(10); |  |
| 1. Which of these expressions evaluates to the integer value 3? I. 6 / 2 II. 6.0 / 2 III. (int)(6.0 / 2) | {could be more than one answer} |
| 1. Which of these expressions evaluates to 4.0?   I. 8 / (double)2 II. (double)8 / 2.0 III. (double)(8 / 2) | {could be more than one answer} |
| 1. If String str = "supercalifragilisticexpealidocious", then what is the value of str.substring(21);? |  |
| 1. What is the value of this expression?   int number = 3 + 5 / 2; |  |
| 1. What will be written to the screen when the following code runs?   int num1 = 3, num2 = 2, num3;  num3 = num1 + num2; num3--;  num3 = num3 + num1;  System.out.println(num3); |  |
| 1. Which of the following will NOT correctly add one to a previously declared int variable named counter?   Question options:   |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | 1) | counter + 1; | | | |  |  | | --- | --- | | 2) | counter++; | | | |  |  | | --- | --- | | 3) | counter = counter + 1; | | | |  |  | | --- | --- | | 4) | counter += 1; | | | |  |  | | --- | --- | | 5) | All of the above will correctly add one to counter. | |  |  | | |  |
| 1. If String str1 = "hello" and String str2 = "world", then what is the value of str1 + str2?   Question options:   |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | 1) | hello | | | |  |  | | --- | --- | | 2) | world | | | |  |  | | --- | --- | | 3) | helloworld | | | |  |  | | --- | --- | | 4) | hello world | | | |  |  | | --- | --- | | 5) | hello, world | | |  | |  |
| 1. What is the value of the following expression?   (2 + 3) % 3  Question options:   |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | 1) | 2 | | | |  |  | | --- | --- | | 2) | 3 | | | |  |  | | --- | --- | | 3) | 4 | | | |  |  | | --- | --- | | 4) | 1 | | | |  |  | | --- | --- | | 5) | 0 | | |  |
| 1. If String str = "Lord of the Rings", then what is the value of str.length(); |  |
| 1. What is the value of this expression?   int number = 3 + 4 \* 5; |  |
| 1. What is the return type of the expression str.indexOf("fred");   Question options:   |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | 1) | int | | | |  |  | | --- | --- | | 2) | double | | | |  |  | | --- | --- | | 3) | boolean | | | |  |  | | --- | --- | | 4) | String | | | |  |  | | --- | --- | | 5) | void | | | NOTE: the “ “ indicates answer |
| 1. A programmer knows that the value of the area of a triangle is 1/2 times the base times the height, and writes them following code:   int base = 7, height = 15; double area = (double)((height \* base) / 2);  What is wrong with the code above?  Question options:   |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | 1) | The order of operations is incorrect. | | | |  |  | | --- | --- | | 2) | It should be base \* height, not height \* base. | | | |  |  | | --- | --- | | 3) | You do not need to cast the result to a double, because the area will always have an integer value. | | | |  |  | | --- | --- | | 4) | The cast is applied too late. The integer result will be cast to a double, always ending in .0 | | | |  |  | | --- | --- | | 5) | Nothing is wrong with this code. It always correctly calculates the area. | | |  |
| 1. What is the value of answer after the following code executes?   int answer = 0, number = 4; answer = number \* (number - 2) + 3 \* 4;  Question options:   |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | 1) | 12 | | | |  |  | | --- | --- | | 2) | 20 | | | |  |  | | --- | --- | | 3) | 22 | | | |  |  | | --- | --- | | 4) | 42 | | | |  |  | | --- | --- | | 5) | 44 | | |  |
| 1. If String str = "Computer Science", then what is the value of str.length();   Question 8 options:   |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | 1) | 14 | | | |  |  | | --- | --- | | 2) | 15 | | | |  |  | | --- | --- | | 3) | 16 | | | |  |  | | --- | --- | | 4) | 17 | | | |  |  | | --- | --- | | 5) | -1 | | |  |
| 1. What is the value of this expression?   int number = 3 + 4 \* 5; |  |
| 1. If String str = "supercalifragilisticexpealidocious", then what is the value of str.substring(10, 14);   Question options:   |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | 1) | agili | | | |  |  | | --- | --- | | 2) | agil | | | |  |  | | --- | --- | | 3) | ragili | | | |  |  | | --- | --- | | 4) | ragil | | | |  |  | | --- | --- | | 5) | ragi | | |  |
| 1. If String str = "United States", then what is the value of str.indexOf("united");   Question options:   |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | 1) | -1 | | | |  |  | | --- | --- | | 2) | 0 | | | |  |  | | --- | --- | | 3) | 1 | | | |  |  | | --- | --- | | 4) | 2 | | | |  |  | | --- | --- | | 5) | 3 | | |  | |  |
| 1. If String str1 = "Florida" and String str2 = "Gators", then what is the value of str1 + str2   Question 12 options:   |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | 1) | Florida | | | |  |  | | --- | --- | | 2) | Florida Gators | | | |  |  | | --- | --- | | 3) | Gators | | | |  |  | | --- | --- | | 4) | FloridaGators | | | |  |  | | --- | --- | | 5) | Florida, Gators | | |  | |  |
| 1. What is the data type of this expression?   (3 + 4 / 3.14) + 5  Question options:   |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | 1) | int | | | |  |  | | --- | --- | | 2) | double | | | |  |  | | --- | --- | | 3) | boolean | | | |  |  | | --- | --- | | 4) | cast | | | |  |  | | --- | --- | | 5) | None of the above | | |  |
| 1. Suppose that the variables grade1, grade2, and grade3 are declared as follows:   int grade1 = 88; int grade2 = 92; int grade3 = 83;  Which of these expressions correctly calculates the average of grade1, grade2, and grade3  Question options:   |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | 1) | (grade1 + grade2 + grade3) / 3 | | | |  |  | | --- | --- | | 2) | (grade1 + grade2 + grade3) / 3.0 | | | |  |  | | --- | --- | | 3) | (double)((grade1 + grade2 + grade3) / 3) | | | |  |  | | --- | --- | | 4) | (double)grade1 + grade2 + grade3 / 3.0 | | | |  |  | | --- | --- | | 5) | (double)grade1 + (double)grade2 + (double)grade3 / 3.0 | | |  | |  |
| 1. What will be written to the screen when the following code runs?   int num1 = 3, num2 = 2, num3;  num3 = num1 + num2; num3--;  num3 = num3 + num1;  System.out.println(num3); |  |