|  |  |  |
| --- | --- | --- |
| **Question 1** |  |  |

Given the declaration:    **int [] numbers= new int[10];**

**numbers** is:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | an array of  10 ints | | | |
|  | |  |  | | --- | --- | |  | a reference to an array of 10 ints | | | |
|  | |  |  | | --- | --- | |  | a reference to an array of 9 ints | | | |
|  | |  |  | | --- | --- | |  | none of the above | | | |
| **Question 2** | |  |  | |

Given the declaration int [ ] nums = {8, 12, 23, 4, 15}, what expression will display the first element in the array (ie the number 8)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | System.out.print("The number is : " + nums[0]); | | | |
|  | |  |  | | --- | --- | |  | System.out.print("The number is : " + nums[1]); | | | |
|  | |  |  | | --- | --- | |  | System.out.print("The number is : " + nums[8]); | | | |
| **Question 3** | |  |  | |

Given the declaration : int [ ] ar = {1,2,3,4,5}; What is the value of ar[3]?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | 2 | | | |
|  | |  |  | | --- | --- | |  | 3 | | | |
|  | |  |  | | --- | --- | |  | 4 | | | |
|  | |  |  | | --- | --- | |  | 5 | | | |
| **Question 4** | |  |  | |

If we declare int [ ] ar = {1,2,3,4,5,6}; The size of array ar is:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | 0 | | | |
|  | |  |  | | --- | --- | |  | 5 | | | |
|  | |  |  | | --- | --- | |  | 6 | | | |
|  | |  |  | | --- | --- | |  | 7 | | | |
| **Question 5** | |  |  | |

The last value in an array called ar can be found at index:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | 0 | | | |
|  | |  |  | | --- | --- | |  | 1 | | | |
|  | |  |  | | --- | --- | |  | ar.length | | | |
|  | |  |  | | --- | --- | |  | ar.length - 1 | | | |
| **Question 6** | |  |  | |

The most common use of an array is to:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | perform for loop on array | | | |
|  | |  |  | | --- | --- | |  | perform different operations on each element in array | | | |
|  | |  |  | | --- | --- | |  | perform the same operation on all elements in array | | | |
| **Question 7** | |  |  | |

The range of indices for an array always start at:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | whatever programmer specifies | | | |
|  | |  |  | | --- | --- | |  | 1 | | | |
|  | |  |  | | --- | --- | |  | 0 | | | |
|  | |  |  | | --- | --- | |  | size of array | | | |
| **Question 8** | |  |  | |

What loop will display each of the numbers in this array on a separate line: float [ ] nums= {1.1f, 2.2f, 3.3f};

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | for (int i =0; i < 3; i++) System.out.println( nums[i]); | | | |
|  | |  |  | | --- | --- | |  | for (i = 1; i <= 3; i++) System.out.println(nums[i]); | | | |
|  | |  |  | | --- | --- | |  | for (i = 0; i <= 3; i++) System.out.println(nums[i]); | | | |
|  | |  |  | | --- | --- | |  | for (i = 1; i < 3; i++) System.out.println(nums[i]); | | | |
| **Question 9** | |  |  | |

What would display from the following statements? int [ ] nums = {1,2,3,4,5,6}; System.out.println((nums[1] + nums[3]));

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | 1 + 3 | | | |
|  | |  |  | | --- | --- | |  | 4 | | | |
|  | |  |  | | --- | --- | |  | 2 + 4 | | | |
|  | |  |  | | --- | --- | |  | 6 | | | |
| **Question 10** | |  |  | |

Assume we have written the Date class, what statement will declare an object of Date class and initialize the date in that object to Nov 25, 2008.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | date dateObj(11, 25, 2008); | | | |
|  | |  |  | | --- | --- | |  | Date dateObj(11, 25, 2008); | | | |
|  | |  |  | | --- | --- | |  | Date dateObj = {11, 25, 2008}; | | | |
|  | |  |  | | --- | --- | |  | Date dateObj = new Date(11, 25, 2008); | | | |
| **Question 11** | |  |  | |

A default constructor has how many parameters?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | 0. | | | |
|  | |  |  | | --- | --- | |  | 1. | | | |
|  | |  |  | | --- | --- | |  | 2. | | | |
|  | |  |  | | --- | --- | |  | Variable. | | | |
| **Question 12** | |  |  | |

A subclass (or derived class)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | incorporates data fields and methods from its superclass and can have additional fields and methods as well | | | |
|  | |  |  | | --- | --- | |  | incorporates data fields and methods from its superclass but cannot have additional fields and methods | | | |
|  | |  |  | | --- | --- | |  | incorporates data fields , but not methods, from its superclass and can have additional fields or methods as well | | | |
|  | |  |  | | --- | --- | |  | incorporates data fields, but not methods, from its superclass but cannot have additional fields or methods | | | |
| **Question 13** | |  |  | |

An algorithm

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | is similar to logarithm | | | |
|  | |  |  | | --- | --- | |  | concentrates on the syntactic solution to a problem | | | |
|  | |  |  | | --- | --- | |  | is a step-by-step solution to a problem written in English | | | |
|  | |  |  | | --- | --- | |  | is not needed | | | |
| **Question 14** | |  |  | |

At Algonquin College we will use PDL to express an

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Answer: | Program Development Language | Incorrect Response**(algorithm, problem solution, solution, program)** | | |
| **Question 15** | | |  |  | |

Does declaring a catch of a superclass exception catch all of the subclass exceptions of that superclass?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | 1) True | | |
|  |  | 2) False | | |
| **Question 16** | | |  |  | |

Every Java application is composed of at least one:

|  |  |  |  |
| --- | --- | --- | --- |
|  | local variable | | |
|  | public interface declaration | | |
|  | public class declaration | | |
|  | imported class | | |
| **Question 17** | |  |  | |

Given String sName = "Joe Blow"; What displays from System.out.println (sName.charAt(2));

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | o | | | |
|  | |  |  | | --- | --- | |  | e | | | |
|  | |  |  | | --- | --- | |  | statement will not compile | | | |
|  | |  |  | | --- | --- | |  | statement will cause a run-time error | | | |
| **Question 18** | |  |  | |

Given String sName = "Joe Blow"; What is the value returned by sName.length()?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | 7 | | | |
|  | |  |  | | --- | --- | |  | 8 | | | |
|  | |  |  | | --- | --- | |  | 9 | | | |
|  | |  |  | | --- | --- | |  | 10 | | | |
| **Question 19** | |  |  | |

Given String sName = "Joe Blow"; What will result if we execute the expression if (sName.compareTo("Joe Blow") == 0)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | result will be true because both sides of the == contain the value "Joe Blow", and compareTo method will return a 0 in that case. | | | |
|  | |  |  | | --- | --- | |  | result will be false because the reference value stored in sName will not be the same as the reference value for the literal "Joe Blow" | | | |
|  | |  |  | | --- | --- | |  | expression will not compile | | | |
|  | |  |  | | --- | --- | |  | expression will cause a run-time error | | | |
| **Question 20** | |  |  | |

Given String sName = "Joe Blow"; Will this compile?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | Yes | | |
|  | |  |  | | --- | --- | |  | No - but String sName = new String ("Joe Blow"); will fix it. | | |
|  | |  |  | | --- | --- | |  | No - but String sName = new String(); followed by sName = in.nextLine() (where in is an object of type Scanner) will fix it. | | |
|  | |  |  | | --- | --- | |  | No | | |
| [View Feedback](javascript://) | |

|  |  |  |
| --- | --- | --- |
| **Question 21** |  |  |

Given String sName = "Joe Blow"; can we execute sName = "Sally Sue Smith";?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | Yes - the reference value for the literal "Sally Sue Smith" is copied into sName (which is a reference to a String). | | |
|  | |  |  | | --- | --- | |  | No - the size of the String is allocated when it is created and "Sally Sue Smith" is too big. | | |
|  | |  |  | | --- | --- | |  | No - Strings are immutable, hence cannot be changed. | | |
|  | |  |  | | --- | --- | |  | none of above | | |
| [View Feedback](javascript://) | |

|  |  |  |
| --- | --- | --- |
| **Question 22** |  |  |

Given String sName; Which statement will initialize sName to "Joe Blow"?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | sName = in.nextLine(); where in is an object of type Scanner, and the user types in Joe Blow | | |
|  | |  |  | | --- | --- | |  | sName = new String ("Joe Blow"); | | |
|  | |  |  | | --- | --- | |  | sName = "Joe Blow"; | | |
|  | |  |  | | --- | --- | |  | All of the above | | |
| [View Feedback](javascript://) | |

|  |  |  |
| --- | --- | --- |
| **Question 23** |  |  |

Given the declaration of an object of class Person called person1; and that Person class has a field called nAge, would we expect the following statement to be allowed: System.out.println( "Age is " + person1.nAge );

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Incorrect Response | |  |  | | --- | --- | |  | yes | | | |
| Correct Answer | |  |  | | --- | --- | |  | no | | | |
| **Question 24** | |  |  | |

Given the declaration: Person person1;....A call to displayPerson method would be:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | Person.displayPerson(); | | | |
|  | |  |  | | --- | --- | |  | person1.displayPerson; | | | |
|  | |  |  | | --- | --- | |  | Person.displayPerson; | | | |
|  | |  |  | | --- | --- | |  | person1.displayPerson(); | | | |
| **Question 25** | |  |  | |

Inheritance refers to the ability to

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Incorrect Response | |  |  | | --- | --- | |  | redefine how member methods of related classes operate | | | |
| Correct Answer | |  |  | | --- | --- | |  | create new classes from existing ones | | | |
|  | |  |  | | --- | --- | |  | combine data fields and methods into one type | | | |
|  | |  |  | | --- | --- | |  | none of the above | | | |
| **Question 26** | |  | 0 / 2 points | |

Select all the conditions that should be considered in a test plan

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Correct Answer | |  |  | | --- | --- | |  | valid values for each input in the problem solution | | | |
| Correct Answer | |  |  | | --- | --- | |  | invalid values for each input in the problem solution | | | |
| Correct Answer | |  |  | | --- | --- | |  | result of calculations of all valid input values | | | |
| Correct AnswerIncorrect Response | |  |  | | --- | --- | |  | boundary conditions of values for each input (one less than boundary, the actual boundary and one more than the boundary) | | | |
| Correct Answer | |  |  | | --- | --- | |  | Potential conditions that could cause the solution to have problems (for example division by 0) | | | |
| **Question 27** | |  |  | |

Select keywords that are used in PDL

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | if, then, else, while, for, dowhile, repeat, put, get | | | |
|  | |  |  | | --- | --- | |  | IF, THEN, ELSE, WHILE, FOR, DOWHILE, REPEAT, PUT, GET | | | |
| Correct Answer | |  |  | | --- | --- | |  | PUT or DISPLAY, GET or INPUT, IF, ELSE, ENDIF, WHILE, ENDWHILE | | | |
| Incorrect Response | |  |  | | --- | --- | |  | none of the above. | | | |
| **Question 28** | |  | 0.5 / 3 points | |

Put the following steps to solving a problem in order:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Incorrect Response | \_\_5\_\_ | **(1)** | Run and debug the program | | |
| Incorrect Response | \_\_6\_\_ | **(1)** | Install and maintain the program | | |
| Incorrect Response | \_\_2\_\_ | **(1)** | Outline solution into an algorithm with PDL | | |
| Incorrect Response | \_\_4\_\_ | **(1)** | Test algorithm solution for correctness | | |
| Incorrect Response | \_\_3\_\_ | **(1)** | Code algorithm into a program | | |
|  | \_\_1\_\_ |  | Define the problem | | |
| **Question 29** | | | |  |  |

The difference between a checked exception and unchecked exception is:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | The compiler verifies that all checked exceptions thrown by each method are caught in the calling code (or declared in a throw clause). | | | |
|  | |  |  | | --- | --- | |  | The JVM verifies that all checked exceptions thrown by each method are caught in the calling code (or declared in a throw clause) | | | |
|  | |  |  | | --- | --- | |  | Java catches all checked exceptions automatically if the programmer has not done so. | | | |
|  | |  |  | | --- | --- | |  | none of the above | | | |
| **Question 30** | |  |  | |

The exception thrown by the Scanner class when executing method nextInt, and invalid chars are entered for the int is:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | ArithmeticException | | | |
|  | |  |  | | --- | --- | |  | IndexOutOfBoundsException | | | |
|  | |  |  | | --- | --- | |  | InputMismatchException | | | |
|  | |  |  | | --- | --- | |  | IOException | | | |
| **Question 31** | |  |  | |

The exception thrown when the program executes a division where the denominator is 0 is:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | IOException | | | |
|  | |  |  | | --- | --- | |  | ArithmeticException | | | |
|  | |  |  | | --- | --- | |  | InputMismatchException | | | |
|  | |  |  | | --- | --- | |  | none of the above | | | |
| **Question 32** | |  |  | |

The following prototype shows that a Cylinder subclass is derived from a superclass called Circle

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | class Circle extends Cylinder | | | |
|  | |  |  | | --- | --- | |  | class Cylinder derived Circle | | | |
|  | |  |  | | --- | --- | |  | class Cylinder extends Circle | | | |
|  | |  |  | | --- | --- | |  | class Circle derived Cylinder | | | |
| **Question 33** | |  | 2 / 2 points | |

The purpose of a structured approach to solving a problem is: (select all that apply)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | to decrease development time as you will have fewer programming and logic errors | | | |
|  | |  |  | | --- | --- | |  | to have a strategy that can be used to solve complex problems | | | |
|  | |  |  | | --- | --- | |  | to make program maintenance easier due to better written programs | | | |
|  | |  |  | | --- | --- | |  | to annoy students who think (incorrectly) that this takes more time than its worth. | | | |
| **Question 34** | |  |  | |

The purpose of exception handling (using try...catch) is to handle common errors in your program.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | 1) True | | |
|  |  | 2) False | | |
| **Question 35** | | |  |  | |

True or false. Reference-type variables are initialized by default to the value null.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  |  | | --- | --- | |  | true | | | |
|  | |  |  | | --- | --- | |  | false | | | |
| **Question 36** | |  | 39 / 39 points | |

Method overloading and method overriding are the two kinds of polymorhism. You get a bonus if you select 'True' because its true.

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | | True |
|  |  | | False |
|  |  |
|  | |

Bottom of Form