1. (int)(Math.random()*5+8) returns a) 5 to 8 b) 5 to 13 c) 8 to 13 d) 5 and 8 e) none of these 2. 100/3 + 51%10 returns a) 2 b) 34 c) 34.3 d) 8 e) none of these 3. ("MVHS").compare To("MV") returns a) a positive number b) a negative number c) zero 4. ("catacomb").lastIndexOf('c', 5) returns a) 0 b) 1 c) 4 d)5 e) none of these 5. ("fruit fly").trim()).length() returns a) 9 b) 8 c) 7 d) 6 e) none of these 6. ("last final").substring(2,6) returns a) ast f b) st fi c) s i d)st f e) none of these 7. String a = "a"; a = "b"; String c = new String("b"); How many objects were created? b) 2 c) 1 d) 0 a) 3 e) none of these

- 8. How are length() and length different?
 - a) One is a method, the other is an attribute.
 - b) One works for Strings, the other works for arrays.
 - c) One works for objects, the other works for primitive data types.
 - d) a and b
 - e) a, b, and c
- 9. What method is important to use when creating a JFrame program?
 - a) setSize()
 - b) setVisible()
 - c) init()
 - d) a and b
 - e) a, b, and c
- 10. How do the three loop types differ?
 - a) For is the most concise
 - b) Do... while runs only once
 - c) For uses three conditions rather than one
 - d) a and b
 - e) none of these

11. false && true returns

- a) true
- b) false
- 12. true || (false && false) returns
 - a) true
 - b) false
- 13. Error index out of bounds means
 - a) An array or String is too long for storage
 - b) A position does not exist in the array or String
 - c) A character does not exist in the array or String
 - d) The array or String was recycled as garbage
 - e) No values were assigned to the array or String
- 14. Null pointer exception means
 - a) An object was not declared appropriately
 - b) An object was not instantiated
 - c) An object was recycled as garbage
 - d) A position does not exist in an array or String
 - e) An array or String is too long for storage
- 15. -1 gets returned from which of the following
 - a) ("java").substring(5)
 - b) ("java").indexOf('b')
 - c) ("java").charAt(-1)
 - d) ("java").compareTo("java")
 - e) none of these

16. Which is a valid identifier in Java (obeying convention)

- a) float
- b) set-flow
- c) 2cool
- d) Baby
- e) None of these
- 17. Which assigns "set" to the String x?
 - a) String x = "set"
 - b) String x = new String ("set")
 - c) String [] x = new String {"set"}
 - d) "set" = x String
 - e) a and b

```
18.
class MyPoint
{
 public void myMethod()
  {
      int x, y;
      x = 5; y = 3;
      System.out.print( " ( " + x + ", " + y + " ) " );
       switchCoords( x, y );
      System.out.print( " ( " + x +", " + y + " ) " );
  }
  public void switchCoords( int x, int y )
  {
        int temp;
        temp = x;
        х=у;
        y = temp;
        System.out.print(" (" + x + ", " + y + ")");
  }
}
```

myMethod() is executed. What is the output?

```
a) (5,3) (5,3) (5,3)
b) (5,3) (3,5) (3,5)
c) (5,3) (3,5) (5,3)
d) (3,5) (5,3) (3,5)
e) none of these
```

19. How would you declare an array of 31 decimals stored as snow?

- a) snow [] = new double [31]
- b) double [] = new snow [31]
- c) double [] snow = new double[31]
- d) double [] snow = new snow [31]
- e) none of these

```
20. arr[0] = new int[4];
arr[1] = new int[3];
arr[2] = new int[2];
arr[3] = new int[1];
for(int n = 0; n < 4; n++)
System.out.println(/* what goes here? */ );
```

Which statement below, when inserted as the

body of the for loop, would print the number of values in each row?

- a) arr[n].length()
- b) arr.size
- c) arr.size-1
- d) arr[n][size]
- e) arr[n].length

- 21. What is a correct way of declaring a 3-element array of integers called frogs?
 - a) frogs = frogs [3]
 - b) frogs = new int [3]
 - c) int [] frogs = $\{1, 2, 3\}$
 - d) int [] frogs = new frogs [3]
 - e) int frogs = $\{1, 2, 3\}$

22. What is invalid for use as a condition for the following blank: if (_____)?

- a) x=2
- b) "cat".equals("rat")
- c) arr[3] = = 1
- d) true
- e) none of these or more than one of these

23. How many objects are eligible for garbage collection once execution has reached the line labeled Line A?

```
String name;
    String newName = "Nick";
   newName = "Jason";
   name = "Frieda";
   String newestName = name;
   name = null;
   //Line A
a) 0
       b) 1 c) 2 d) 3
                              e) none of these
24. "coolness".charAt(6) returns
       b) 1 c) s
a) c
                     d) e
                              e) none of these
25. "froggie goes hopping".substring(12) returns
a) error
               b) hopping
                              c) (space)
                                              d) hopping (with space at front)
26. 5.6*23/5-8+2.1/4 > 15 returns
a) true b) false
27. The code in \#26 on the left side of the equation returns
a) double
              b) int c) boolean
                                     d) none of these
28. ("65"). compare To("5") returns
a) a positive number b) a negative number c) zero
29. + is
   a) used to combine numbers mathematically
   b) used to concatenate
   c) used to increment when paired with another symbol of its type
   d) a and b
   e) a, b, and c
```

- 30. drawString() takes what parameters (in order)?
 - a) String, int, int
 - b) String only
 - c) String, double, int
 - d) int, int, String
 - e) none of these
- 31. println() takes what parameters (in order)?
 - a) String, int, int
 - b) String only
 - c) String, double, int
 - d) int, int, String
 - e) none of these