is this on website? allow them this prior to actual quiz? where is 5.2 quiz, need 76 copies

Name KEY

5.1 quiz practice quiz

1) Consider the following program:

```
public class Tester{
   public void testing(int[] a){
      int temp = a[0];
      a[0] = a[1];
      a[1] = temp;
   }
}

public class testMain{
   public static void main(String[] args){
    int[] b  = new int[2];
    b[0] = 3;
    b[1] = 4;
    Tester test = new Tester();
    test.testing(b);
    int x = b[0], int y = b[1];
   }
}
```

temp = 3

a → b

4 3

3 | 4

x = 4 y = 3

What is contained in x,y and temp respectively after the last line in main?

a) 3, 4, 3
b) 4, 3, undefined
c) 3, 4, 4
d) 4, 3, 3
e) 3, 4, undefined

2) What is printed at the end of this code segment?

```
int[] arr = {2, 3, 6, 7,10,11};
for(int i = 0; i < arr.length-1; i+=2){
   arr[i] = arr[4];
   arr[4] = arr[5];
   arr[5] = arr[i];
}
for(int i = 0; i < arr.length; i++){
   System.out.print(arr[i]+" ");
}
```

6 - 1 = 5

i

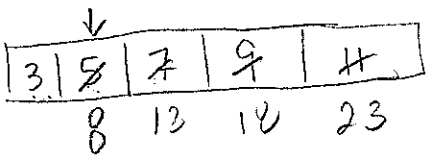
	0	1	2	3	4	5
arr →	2	3	6	7	10	11
	10		11		11	10
					10	11
					10	
					11	11

i = 0
i = 2
i = 4

10, 3, 11, 7, 11, 11

a) 10 11 10 11 11 11
b) 10 11 10 11 10 11
c) 2 3 10 11 6 7
d) 11 10 3 6 11 11
e) 10 3 11 7 11 ~~10~~ 11

3)What is printed after execution?




```
int[] b = new int[5];
for(int i = 0; i < b.length; i++){
  b[i] = i*2+3;
}
for(int i = 1; i < b.length; i++){
  b[i] = b[i-1] + b.length;
  System.out.print(b[i] + " ");
}
```

a) 3 3 3 3
b) 8 8 8 8
c) 5 7 9 11
d) 8 13 18 23
e) 13 18 23 28

4) Which of the following constructors of methods will not cause a syntax error? Instances variables are age & hasMilk.

I.
```
public Cow(){
  age = 10;
  hasMilk = true;}
```

II.
```
public void milkCow(){
  hasMilk = false;}
```

III.
```
public static void killCow(){
  age = 0;
  hasMilk = false;}
```
error

a) I, II and III
b) III only
c) I and III only
e) I and II only
e) I only

5. given this code, select the True statement:

```
public class Runner{
  public static void main( String [] args ){
    int [] c = { 7, 6, 5 };
    met( c ); }

  private static void met( int[] a ){
      System.out.println( a[ a.length ] );
  } }
```

a) This code will not compile. The error will be: ArrayIndexOutOfBoundsException

b) This code will compile but if you try to run it, the following run-time exception will occur: ArrayIndexOutOfBoundsException

c) This code will compile and run. It will display a zero.

6. Given this code, select the best answer:

```
public class Runner{
    public static void main( String [] args ){
        int [] c={1,2,3,4,5,6,7,8};
        int n=(int)(8*Math.random()+1);
        met( c, n ); }
    private static void met( int[] a, int n ){
        for (int i=0; i<a.length;i++) {
            if (a[i]==5 || a[i]==6)
                a[i]=n;
        }
    }
}
```

a) nothing in array c has changed because java is pass by value.

(b) two elements of array c have changed because arrays are mutable.

c) position 5 and 6 in array c have been changed

d) indexOutOfBoundsException occurs.

11) Create a String array called myFarm with 6 different animals. For each animal, print a line with the animal followed by its length. For example: pig 3
Write a loop to determine which animal has the maximum length. Print out the wining animal and it's length after the loop.

```
String[] myFarm = {"pig", "chicken", "cow",
                   "lamb", "duck", "horse"};
int max = 0;
for (int i = 0; i < myFarm.length; i++) {
    S.o.p(myFarm[i] + " " + myFarm[i].length());
    if (myFarm[i].length() > myFarm[max].length())
        max = i;
}
S.o.p("The longest name is " + myFarm[max]
      + " " + myFarm.length());
```

12. Given the class Gamer, follow instructions below:

```
public class Gamer {
        private static int ptsToWin;
        private String name;
        private int pts;

public Gamer(Strings) {
        name = s;
        pts=0;
} //end constructor

public static void setGoal(int n) {
        ptsToWin=n;
}//end setGoal

public void addPts() {
        pts+=(int)(8*Math.random());
}//end addPts

public boolean beat(Gamer g) {
        if (pts>=g.pts )
                return true;
        else
                return false;
}//end won

public StringtoString() {
        return name + " has "+pts;
}//end toString
```

Instantiate an array of 6 Gamer objects and make sure each object gets random amounts of points (by calling addPts() twice for each object) . Using another loop find out which Gamer has the most points.

```
Gamer g = new Gamer[6];
for (int i = 0; i < g.length; i++) {
        g[0] = new Gamer("name")
        g.addPts();
        g.addPts();
}
Gamer win = g[0];
for (int i = 0; i < g.length; i++) {
        if (g[i].beat(win))
                win = g[i];
}
S.o.p("the winner! \n" + win);
```