

1) Consider the following program:

Name _____
5.1 quiz practice quiz

```
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];
    }
}
```

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]+" ");
}
```

- 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

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

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;}

- 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 winning animal and its length after the loop.

12. Given the class Gamer, follow instructions below:

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

    public Gamer(String s) {
        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 String toString() {
        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.

