

Question 1

Write a method called `findAlternating` that takes a string and returns true if the string contains any instance of two characters repeating

Example; "abab" returns true, "ababc" returns true, "abac" returns false, "ab" returns false

Question 2

Write a method called `findMultiple` that takes two ints (a and b) and returns true if b is a multiple of a

Question 3

Write a method called `findRepeat` to prompt the user for a string and return true if it contains more than one of the same character, otherwise return false

Question 4

Write a method called `calcMedian` to return the median of an int array (return NULL if there is no median)

Question 5

What is the output of the following code?

```
int [] arr1 = {1, 2, 3, 4, 5};
int [] arr2 = arr1;
arr2 [2] = 6;

for (int i = 0; i < arr1.length; i++){
    System.out.print(arr1[i] + ", ");
}

System.out.println();

for (int i = 0; i < arr2.length; i++){
    System.out.print(arr2[i] + ", ");
}
```

- A. 1, 2, 3, 4, 5
1, 2, 3, 4, 5

- B. 1, 2, 3, 4, 5
1, 2, 6, 4, 5
- C. 1, 2, 6, 4, 5
1, 2, 6, 4, 5
- D. Compile error
- E. Runtime error

Question 6

What is the output of the following code?

```
for (int i = 0; i = 5; i++){  
    System.out.print(i + 1);  
}
```

- A. 12345
- B. 012345
- C. 123456
- D. Compile error
- E. Runtime error

Question 7

What does the following method do?

```
public static void mystery(){  
  
    Scanner sc = new Scanner(System.in);  
    String s = sc.next();  
    for (int i = 0; i < s.length(); i++) {  
        char c = s.charAt(i);  
        for (int j = i + 1; j < s.length(); j++) {  
            if (s.charAt(j) == c) {  
                System.out.println("False");  
                return;  
            }  
        }  
    }  
    System.out.println("True");  
}
```

- A. Prints false if there is more than one of the same character in S
- B. Prints false S has two consecutive characters that are the same
- C. Compile error
- D. Runtime error
- E. None of the above

Question 8

What is the output of the following code?

```
int arr1[][] = {{1,2,3},{4,5,6}};
int arr2[][] = arr1;
for (int i = 0; i < arr1.length; i++){
    for (int j = 0; j < arr1[0].length; j++){
        arr2[i][j] = arr1[j][i];
        System.out.print(arr2[i][j]);
    }
    System.out.println();
}
```

- A. 123
456
- B. 321
654
- C. 142
536
- D. Compile error
- E. Runtime error

Question 9

What is the output of the following code?

```
public class Ex{
    public static void main(String[] args){
        int[] arr = {1,2,3};
        pass(arr);
        printIt(arr);
    }
}
```

```

public static void pass(int[] arr){
    for (int i = 0; i < arr.length; i++) {
        arr[i] += 1;
        arr[i] = arr[i] + 1;
    }
}

public static void printIt(int[] arr){
    for (int i = 0; i < arr.length; i++) {
        System.out.print(arr[i] + ", ");
    }
}
}

```

- A. 3, 4, 5,
- B. 2, 3, 4,
- C. 1, 2, 3,
- D. Compile error
- E. Runtime error

Question 10

What is the output of the following code?

```

public class Ex {
    static int a = 4;
    public static void process(){
        a = 0;
    }
    public static void main(String[] args) {
        process();
        System.out.println(a);
    }
}

```

- A. 4
- B. 0
- C. Compile error
- D. Runtime error
- E. None of the above