

## Question - 1

SCORE: 10 points

Java Easy Iteration

What gets printed when the following program is compiled and run?

```
class test {  
    public static void main(String args[]) {  
        int i;  
        do {  
            i++;  
        }  
        while(i < 0);  
        System.out.println(i);  
    }  
}
```

- ☒ The program does not compile as i is not initialized.
- ☐ The program compiles but does not run.
- ☐ The program compiles and runs but does not print anything.
- ☐ The program prints 0.
- ☐ The program prints 1.

## Question - 2

SCORE: 10 points

Java: String Array

Application Development Java Arrays Core CS Language-Specific

Which of the following Java declaration of the String array is correct?

- ☐ String temp [] = new String {"j" "a" "z"};
- ☐ String temp [] = { "j" " " b" "c"};
- ☐ String temp = {"a", "b", "c"};
- ☒ String temp [] = {"a", "b", "c"};

## Question - 3

SCORE: 10 points

Application Development Java General Programming

What is the result of trying to compile and run this program?

```
public class Test {
    public static void main(String[] args){
        int[] a = {1};
        Test t = new Test();
        t.increment(a);
        System.out.println(a[a.length - 1]);
    }
    void increment(int[] i){
        i[i.length - 1]++;
    }
}
```

- ☐ Compiler error
- ☒ Compiles and runs printing out 2
- ☐ Compiles and runs printing out 1
- ☐ An ArrayIndexOutOfBoundsException Exception at runtime

## Question - 4

SCORE: 10 points

Examine the following code:

```
ArrayList<String> list = new ArrayList<String>()
;

list.add( "A" );
list.add( "B" );
list.add( "C" );
list.add( "D" );
list.add( "E" );
```

Which of the following will change the list so that it looks like:

A  
B  
C  
D  
O  
E

- ☐ list.add( 3, "O" );
- ☒ list.add( 4, "O" );
- ☐ list.add( 5, "O" );
- ☐ list.set( 3, "O" );

## Question - 5

SCORE: 10 points

What is the output of the following code fragment:

```
int[] num = { 2, 4, 6, 8, 10, 1, 3, 5, 7, 9
};

for ( int index= 0 ; index < 5 ; index++ )
    System.out.print( num[ index ] + " " );
```

- ☐ 2 4 6 8
- ☒ 2 4 6 8 10
- ☐ 2 4 6 8 10 1
- ☐ 2 4 6 8 10 1 3 5 7 9

## Question - 6

SCORE: 10 points

What is the output of the following code:

```
int[] array = { 1, 4, 3, 6 };
int what = 0;

for ( int index=0; index < array.length;
index++ )
{
    what = what + array[ index ] ;
}
System.out.println( what );
```

- ☐ 1
- ☐ 6
- ☐ 1 4 3 6
- ☒ 14

## Question - 7

SCORE: 10 points

Fill in the blanks of the following code fragment so that the elements of the array are printed *in reverse order*, starting with the last element.

```
int[] num = { 2, 4, 6, 8, 10, 1, 3, 5, 7, 9
};

for ( int _____ ; _____ ;
_____ )
    System.out.print( num[ index ] + " " );
```

- ☐ index = 0; index < num.length; index--
- ☒ index = num.length-1; index >= 0; index--
- ☐ index = length; index < 0; index--
- ☐ index = length-1; index > 0; index--

## Question - 8

SCORE: 10 points

What will be the output of the following program?

```
public class Highlight {  
    public static void main(String[] args) {  
        int[] numbers = {10, 20, 30, 40, 50, 60, 70  
, 80, 90};  
        for (int x : numbers) {  
            if (x == 30 || x == 60 || x == 90 || x  
== 120) {  
                continue;  
            }  
            System.out.print(x + " ");  
            continue;  
        }  
    }  
}
```

- ☐ 10 20 30 40 50 60 70 80 90 120
- ☐ 10 20 30 40 50 60 70 80 90
- ☒ 10 20 40 50 70 80
- ☐ Compilation Error
- ☐ Runtime Error

### Question - 9

SCORE: 10 points

What will be the output of the following program?

```
public class Demo {  
    int a;  
    int b;  
  
    public Demo(){  
        System.out.println("Zero argument  
constructor called");  
    }  
  
    public Demo(int a, int b) {  
        this();  
        System.out.println("Two argument  
constructor called");  
        a = a;  
        b = b;  
    }  
  
    public static void main(String []args) {  
        Demo d = new Demo(10, 20);  
        System.out.println("a = "+ d.a +", b = "+  
d.b);  
    }  
}
```

- ☐
- ☐ Zero argument constructor called Two argument constructor called a = 10, b = 20



Zero argument constructor called Two argument constructor called a = 0,  
b = 0

- ☐ Two argument constructor called a = 10, b = 20
- ☐ Two argument constructor called a = 0, b = 0

### Question - 10

SCORE: 10 points

What is the correct order for system design?

- ☐ Problem Definition --> Design --> Implementation --> Specification
- ☒ Problem Definition --> Design --> Specification --> Implementation
- ☐ Specification --> Problem Definition --> Design --> Implementation
- ☐ Problem Definition --> Specification --> Design --> Implementation