Started on	Thursday, 3 May 2018, 4:14 PM
State	Finished
Completed on	Thursday, 3 May 2018, 4:36 PM
Time taken	22 mins 13 secs
Marks	11.50/24.00
Grade	**47.92** out of 100.00

Question **1**

Correct

Mark 1.00 out of 1.00

Does the method call in the following method cause compile errors?

```
public static void main(String[] args) {
  Math.pow(2, 4);
}
```

Select one:

- a. No ✓
- b. I Don't Know
- c. Yes

The correct answer is: No

Question **2**

Correct

Mark 1.00 out of 1.00

_____ is a simple but incomplete version of a method.

Select one:

- a. A main method
- b. A stub ✓
- c. A non-main method
- d. A method developed using top-down approach

The correct answer is: A stub

Question **3**

Incorrect

Mark 0.00 out of 1.00

(char)('a' + Math.random() * ('z' - 'a' + 1)) returns a random character _____.

Select one:

- a. between 'a' and 'y'
- b. between 'b' and 'z'
- c. between 'b' and 'y' ✗
- d. between 'a' and 'z'

The correct answer is: between 'a' and 'z'

Question **4**

Incorrect

Mark 0.00 out of 1.00

(int)('a' + Math.random() * ('z' - 'a' + 1)) returns a random number _____.

Select one:

- a. between 'a' and 'z'
- b. between 0 and (int)'z'
- c. between (int)'a' and (int)'z'
- d. between 'a' and 'y' ✗

The correct answer is: between (int)'a' and (int)'z'

Question **5**

Correct

Mark 1.00 out of 1.00

A variable defined inside a method is referred to as _____.

Select one:

- a. a method variable
- b. a block variable
- c. a global variable
- d. a local variable ✓

The correct answer is: a local variable

Question 6

Correct

Mark 1.00 out of 1.00

All Java applications must have a method _____.

Select one:

- a. public static void main(String[] args) ✓
- b. public static Main(String args[])
- c. public static main(String[] args)
- d. public void main(String[] args)
- e. public static Main(String[] args)

The correct answer is: public static void main(String[] args)

Question 7

Correct

Mark 1.00 out of 1.00

Analyze the following code:

```
class Test {
    public static void main(String[] args) {
        System.out.println(xmethod(5));
    }

    public static int xmethod(int n, long t) {
        System.out.println("int");
        return n;
    }

    public static long xmethod(long n) {
        System.out.println("long");
        return n;
    }
}
```

Select one:

- a. The program displays int followed by 5.
- b. The program displays long followed by 5. ✓
- c. The program runs fine but displays things other than 5.
- d. The program does not compile because the compiler cannot distinguish which xmethod to invoke.

The correct answer is: The program displays long followed by 5.

Question 8

Incorrect

Mark 0.00 out of 1.00

```
public class Test {
    public static void main(String[] args) {
        System.out.println(m(2));
    }

    public static int m(int num) {
        return num;
    }

    public static void m(int num, int num2) {
        System.out.println(num);
    }
}
```

Select one:

- a. The program runs and prints 2 twice.
- b. The program runs and prints 2 once. ✗
- c. The program has a compile error because the second m method is defined, but not invoked in the main method.
- d. The program has a compile error because the two methods m have the same signature.

The correct answer is: The program has a compile error because the two methods m have the same signature.

Question 9

Correct

Mark 1.00 out of 1.00

Consider the following incomplete code:

```
public class Test {
    public static void main(String[] args) {
        System.out.println(f(5));
    }

    public static int f(int number) {
        // Missing body
    }
}
```

Select one:

- a. return "number";
- b. The missing method body should be _____.
- c. System.out.println(number);
- d. return number; ✓
- e. System.out.println("number");

The correct answer is: return number;

Question 10

Correct

Mark 1.00 out of 1.00

Does the method call in the following method cause compile errors?

```
public static void main(String[] args) {
  Math.pow(2, 4);
}
```

Select one:

- a. I Don't Know
- b. Yes
- c. No ✓

The correct answer is: No

Question 11

Incorrect

Mark -1.00 out of 1.00

Does the return statement in the following method cause compile errors?

```
public static void main(String[] args) {
  int max = 0;
  if (max !=0)
    System.out.println(max);
  else
    return;
}
```

Select one:

- a. No
- b. Yes ✗

The correct answer is: No

Question 12

Incorrect

Mark 0.00 out of 1.00

Each time a method is invoked, the system stores parameters and local variables in an area of memory, known as _____, which stores elements in last-in first-out fashion.

Select one:

- a. an array
- b. a stack
- c. a heap ✗
- d. storage area

The correct answer is: a stack

Question 13

Correct

Mark 1.00 out of 1.00

Given the following method :

```
    static void nPrint(String message, int n) {
         while (n > 0) {
             System.out.print(message);
             n--;
         }
    }
//     What is k after invoking nPrint("A messag
e", k)?

    int k = 2;
    nPrint("A message", k);
```

Select one:

- a. 1
- b. 2 ✓
- c. 3
- d. 0

The correct answer is: 2

Question **14**

Correct

Mark 1.00 out of 1.00

Given the following method :

```
    static void nPrint(String message, int n) {
         while (n > 0) {
             System.out.print(message);
             n--;
         }
    }
//     What is k after invoking nPrint("A messag
e", k)?

    int k = 2;
    nPrint("A message", k);
```

Select one:

- a. 1
- b. 3
- c. 2 ✓
- d. 0

The correct answer is: 2

Question **15**

Correct

Mark 1.00 out of 1.00

public class Test

Select one:

a. public static void ...
::Analyze the following code:
public class Test {
public static void ...::Analyze the following code:
public class Test {
public static void main(String[] args) {
System.out.println(xMethod(5, 500L));
}
public static int xMethod(int n, long l) {
System.out.println("int, long");
return n;
}
public static long xMethod(long n, long l) {
System.out.println("long, long");
return n;
}
}{

b. The program displays int, long followed by 5. ✓

c. The program does not compile because the compiler cannot distinguish which xmethod to invoke.

d. The program runs fine but displays things other than 5.

e. The program displays long, long followed by 5.

The correct answer is: The program displays int, long followed by 5.

Question **16**

Partially correct

Mark 0.50 out of 1.00

The client can use a method without knowing how it is implemented. The details of the implementation are encapsulated in the method and hidden from the client who invokes the method. This is known as _____.

Select one or more:

a. encapsulation ✓

b. simplifying method

c. method hiding

d. information hiding

The correct answer is: information hiding , encapsulation

Question 17

Correct

Mark 1.00 out of 1.00

What is Math.ceil(3.6)?

Select one:

- a. 5.0
- b. 3.0
- c. 4.0 ✓
- d. 3

The correct answer is: 4.0

Question 18

Incorrect

Mark -1.00 out of 1.00

What is Math.floor(3.6)?

Select one:

- a. 3 ✗
- b. 5.0
- c. 4
- d. 3.0

The correct answer is: 3.0

Question 19

Incorrect

Mark 0.00 out of 1.00

What is Math.round(3.6)?

Select one:

- a. 3.0
- b. 3
- c. 4
- d. 4.0 ✗

The correct answer is: 4

Question **20**

Incorrect

Mark 0.00 out of 1.00

What is Math.sin(Math.PI / 2)?

Select one:

- a. 1.0
- b. 1
- c. 0.5 ✗
- d. 0.4
- e. 1.5

The correct answer is: 1.0

Question **21**

Incorrect

Mark -1.00 out of 1.00

What is Math.sqrt(4.0)?

Select one:

- a. 2.0
- b. 2 ✗
- c. 2.5
- d. 1
- e. 3.0

The correct answer is: 2.0

Question **22**

Correct

Mark 1.00 out of 1.00

Which of the following should be defined as a void method?

Select one:

- a. Write a method that converts an uppercase letter to lowercase.
- b. Write a method that prints integers from 1 to 100. ✓
- c. Write a method that returns a random integer from 1 to 100.
- d. Write a method that checks whether current second is an integer from 1 to 100.

The correct answer is: Write a method that prints integers from 1 to 100.

Question 23

Correct

Mark 1.00 out of 1.00

You should fill in the blank in the following code with _____.

```
public class Test {
    public static void main(String[] args) {
        System.out.print("The grade is " + getGrade(78.5));
        System.out.print(" The grade is " + getGrade(59.5));
    }

    public static _____ getGrade(double score) {
        if (score >= 90.0)
            return 'A';
        else if (score >= 80.0)
            return 'B';
        else if (score >= 70.0)
            return 'C';
        else if (score >= 60.0)
            return 'D';
        else
            return 'F';
    }
}
```

Select one:

- a. double
- b. int
- c. char ✓
- d. boolean
- e. void

The correct answer is: char

Question **24**

Correct

Mark 1.00 out of 1.00

You should fill in the blank in the following code with _____.

```
public class Test {
    public static void main(String[] args) {
        System.out.print("The grade is ");
        printGrade(78.5);
        System.out.print("The grade is ");
        printGrade(59.5);
    }

    public static __________ printGrade(double s
core) {
        if (score >= 90.0) {
            System.out.println('A');
        } else if (score >= 80.0) {
            System.out.println('B');
        } else if (score >= 70.0) {
            System.out.println('C');
        } else if (score >= 60.0) {
            System.out.println('D');
        } else {
            System.out.println('F');
        }
    }
}
```

Select one:

- a. void ✓
- b. double
- c. boolean
- d. char
- e. int

The correct answer is: void