

INFO1103: Introduction to Programming
Semester 1 – 2017
Quiz 1 – Sample

Name: _____

SID: _____

Tutorial: _____

Question 1 [20 marks]:

1.a) What is the most suitable data type for representing if a student is enrolled in INFO1103 course or not?

- a) int
- b) double
- c) boolean
- d) String

1.b) Which of the following statements is wrong?

- a) It is valid to start variable names with an underscore.
- b) It is valid to start variable names with a number.
- c) By convention, class names should start with an uppercase letter.
- d) By convention, method names should start with a lowercase letter.

1.c) What will be the value of `num` after this code executes?

```
1 double num = 5.0;  
2 num = num + 5 / 2;
```

- a) 2.0
- b) 2.5
- c) 7.0
- d) 7.5

1.d) What will be the value of **a** and **b** after this code executes?

```
1  int a = 10;  
2  int b = a++ * 2;
```

- a) a = 10, b = 20
- b) a = 10, b = 22
- c) a = 11, b = 20
- d) a = 11, b = 22

1.e) What will the following code print out?

```
1  String s = "Hello World!";  
2  System.out.println(s.length());
```

- a) Hello World!
- b) 10
- c) 11
- d) 12

1.f) What will the following code print out?

```
1  for(int i = 5; i >= 2; i = i - 2) {  
2      System.out.print(i + " ");  
3  }
```

- a) 5 3
- b) 5 3 1
- c) 5 3 2
- d) 5 4 2

1
1.g) What is the result of the following expression?

```
1  (2 == 3) && true
```

- a) true
- b) false
- c) 2
- d) 3

1.h) Given the following code, what is the value of `arr[3]`?

```
1 String [] arr = new String [] { "one", "two", "three four", "five" };
```

- a) "three"
- b) "four"
- c) "three four"
- d) "five"

1.i) which option indicates that a method does not return a value?

- a) public
- b) static
- c) void
- d) main

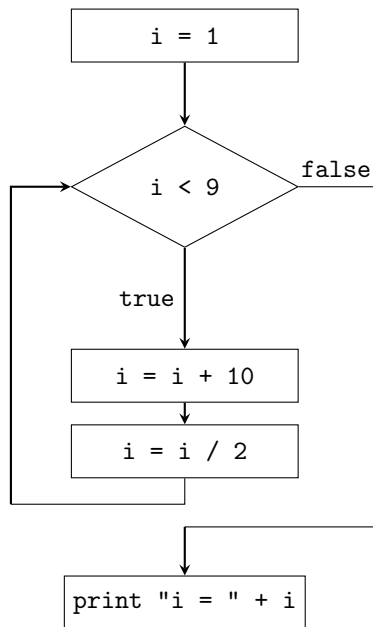
1.j) Which option is a legal invocation of the following method?

```
1 public static String foo(int a) {  
2     return a + "";  
3 }
```

- a) `int a = foo(100);`
- b) `double a = foo(100.0);`
- c) `String a = foo("100");`
- d) `String a = foo(100);`

Question 2 [10 marks]:

Read the following flowchart.



a) What is the final value of `i`?

b) How many iterations will there be in total?

Question 3 [10 marks]:

Read the following code.

```
1  int index = 0;
2  int y = 1;
3  while(index < 6) {
4      y = y + index;
5      index = index + 2;
6  }
7  System.out.println("y is " + y);
```

a) Produce a deskcheck of this program showing a new line for each change.

b) What is the output of the program?

Question 4 [20 marks]:

- a) What kind of data type is most suitable for the variable `xValue`?

```
1 xValue = 47;
```

- b) In an `if` statement, will the next block of code execute if the condition is `true` or `false`?

- c) Identify the errors in the following code.

```
1 public class CastTest
2 {
3     public static void Main(String[] args)
4     {
5         double x = (double) ( (int)( 15.0f / (double)2 ) ) ;
6         if ( x < 2 || x > 5 );{
7             int fx = (int)(x) % 3;
8             x *= fx;
9         }
10        System.out.println("x: " + x)
11    }
12 }
```

- d) Give an example of an `Exception` and how it is used.

Question 5 [30 marks]:

Write a loop to search for the number 7 in an array. When the number is found, return the index of the 7. If the number is not found, return -1.

```
int searchFor7(int[] array) {
```

```
}
```