School of Computer Science INFO1110/9001 Quiz 1

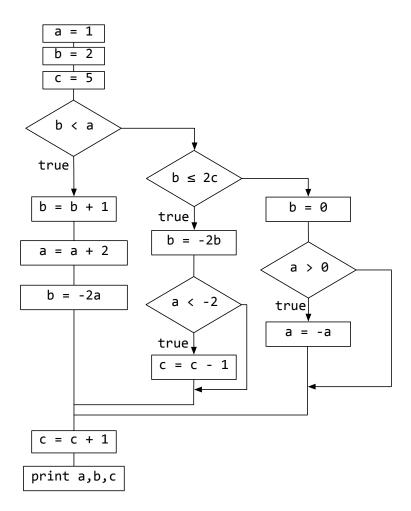
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Instructions:

This quiz is for revision and to complete in your own time This quiz is optional and does not count toward your grade Please complete without using a python interpreter The contents of the quiz will be covered in week 5 seminar

Question 1 - 7 marks

- a) Perform a desk check on the following flowchart showing a new line for each change, and
- b) Convert the flowchart diagram to Python3 code.



Question 2 - 1 mark

What will be the value of num after this code executes?

```
num = 5.0
num = num + 5/2
```

Question 3 - 3 mark

Consider the Python3 code:

```
1 a = 10

2 b = 20

3 c = 6

4

5 x = (a < b) and (b > c and (c + 3) < a)

6 y = ((c > a) or (a > 7)) and ((not (b > 0)) or (b > a))

7 z = x and y
```

Evaluate the expressions for x, y and z:

Question 4 - 3 marks

Consider the code:

```
1  x = (9 + 1) * 2
2  y = 40 // 2
3  if x = y:
4  print("x equals y")
```

The program is run using

python3 program.py

It produces an error. Describe the error:

Fix the error in the code such that the program produces the output x equals y

Question 5 - 3 marks

What is the data type of each variable at each line of code? Write your answers in the given table

	line	x	у	
1 X = "5"	1			
x = x + "1" $y = 10 % 3$	2			
z = y * 5.0	3			
5 X = X == X	4			
	5			

Question 6 - 5 marks

Write a while loop to print out a sequence of N even numbers based on an input N. When the sequence is finished, print "Sequence done" Note: The sequence starts from 0.

Example:

Input	Output	
5	0	
	2	
	4	
	6	
	8	
	Sequence done	