

Two hours - online

EXAM PAPER MUST NOT BE REMOVED FROM THE EXAM ROOM

**UNIVERSITY OF MANCHESTER
DEPARTMENT OF COMPUTER SCIENCE**

Introduction to Programming 1

Date: Friday 17th January 2020

Time: 09:45 - 11:45

This is an online examination. Please answer ALL Questions
The examination is worth a total of 60 marks
The exam contains MULTIPLE CHOICE QUESTIONS

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This is a CLOSED book examination

The use of electronic calculators is NOT permitted

Section A

**Section A contains restricted
multiple choice questions (MCQs)
and is NOT published.**

Section B

Answer ALL of the questions

1. State with an explanation what the three basic programming constructs are. (6 marks)

2. When opening a file in python there are four possible modes they can be opened with. State and explain two of these. (4 marks)

3. The following code should:
 - Call a function named `my_function`.
 - If a parameter is not provided when calling `my_function`, then the value 5 should be used for the value of `v`.
 - Then, 10 is added the value that resides in `v`.
 - Then `v` is returned from the function and printed to screen.

```
def my_function(v == 5):  
    v + 10  
    return v  
  
my_function()  
print(v)
```

The code contains errors and does not function as intended. How can you fix the code so that it meets its objective?

Note: You should not add new lines, but you can change the lines that exist. You should only change three of the lines. Which lines do you change and how?

(3 marks)

4. Produce pseudo code for the following:
For every number from 1 to 100, output FizzBuzz if the number is divisible by both 3 and 5, output Fizz if the number is divisible by 3, output Buzz if the number is divisible by 5. If none of these conditions match, then just output the number. (5 marks)

5. What are the purposes of the `break` and `continue` commands in Python? (2 marks)