

# Functions, Conditionality and Loops Exam

- Attempt all 16 questions.
- Please do not round any numerical answers, submit numbers in their entirety.
- When requiring a decimal separator, you should use a period. For example: 1.632

1. In a Jupyter Notebook, use the help function on the max function. In the output, what's the name of the first argument in the max function?

- ☐ default=obj
- ☒ iterable
- ☐ key=func
- ☐ \*[]

2. What data type is the output of the input function?

- ☐ Boolean
- ☒ String
- ☐ Nothing
- ☐ Integer

3. What would the output be of the following: int("9")?

☐ "nine"

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☐ "9"

☒ 9

☐ An error

4. What would the output be of the following:

`sum([6,15,16,21,8,13,7,8,1,3])/len([6,15,16,21,8,13,7,8,1,3])?`

☒ 9.8

☐ 98

☐ 9

☐ 10

5. What method can be used to insert a value at a specific position in a list?

☐ append

☒ insert

☐ prepend

☐ pop

6. What method can be used to insert a value at the end of a list?

7. What statement must be used when creating a custom function?

8. What statements outputs a value from the function?

9. What file type must a custom library be stored as?

10. How do we reference a function from an imported library?

- ☐ pop
- ☐ prepend
- ☐ insert
- ☒ append

- ☒ def
- ☐ cust
- ☐ func
- ☐ dec

- ☐ release
- ☐ send
- ☒ return
- ☐ output

- ☐ .ipynb
- ☐ .jup
- ☐ .pt
- ☒ .py

- ☒ By adding the name of the library followed by a . before the name of the function
- ☐ By adding the name of the library followed by a : before the name of the function
- ☐ By adding the name of the library followed by a . after the name of the function

☐ By adding the name of the library followed by a : after the name of the function

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11. What punctuation must appear at the end of the first line of an if statement?

☐ >

☒ :

☐ .

☐ ;

12. What's the purpose of the elif statement?

☐ It allows us to use conditional operators such as and/or

☒ It allows us to add further conditions and actions

☐ It denotes what happens when the condition in the if statement is not met

☐ It enables us to use conditional statements within loops

13. Let a=0 and b=1. Which of the following IF statements will print the value True?

☒ "if a==1 or b==1: print(True)"

☐ "if a==1 and b==0: print(True)"

☐ "if a==1 and b==1: print(True)"

☐ "if a==1 or b==0: print(True)"

14. Let a=0, b=0 and c=0.5. Which of the following IF functions returns a value of True?

☐ "if (a==1 or b==1) and c>0.5: print(True)"

☐ "if (a==1 and b==1) and c>=0.5: print(True)"

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☐ "if (a==1 and b==1) and c>=0.5: print(True)"

☒ "if (a==1 or b==0) and c>=0.5: print(True)"

15. Let  $a=268$  and  $b=[1,2,3,4,5]$ . Write a for loop that iterates through  $b$ . For each iteration, set the value of  $a$  to be equal to  $a$  minus  $b$  squared. What's the value of  $a$  when the for loop finishes?

☒ 213

☐ -3145

☐ 238

☐ 323

16. Let  $a=1.01$  and  $b=0$ . Write a for loop that stops when  $a$  is greater than 123456. In each loop set  $a$  to be equal to  $a$  squared. Set  $b$  to be equal to  $b$  plus 1. What is the value of  $b$  once the loop finishes?

☐ 11

☐ 17

☒ 123455

☐ 104

SUBMIT EXAM

