**Python assignment 2**

**1.What are the two values of the Boolean data type? How do you write them?**

The two values of the Boolean data type are True and False.They are written as True and False in Python.

**2. What are the three different types of Boolean operators?**

AND (and): Returns True if both operands are True, otherwise False.

OR (or): Returns True if at least one operand is True, otherwise False.

NOT (not): Returns True if the operand is False, and vice versa

**3. Make a list of each Boolean operator&#39;s truth tables (i.e. every possible combination of Boolean values for the operator and what it evaluate ).**

AND

|  |  |  |
| --- | --- | --- |
| TRUE | TRUE | TRUE |
| TRUE | FALSE | FALSE |
| FALSE | TRUE | FALSE |
| FALSE | FALSE | FALSE |

**OR**

|  |  |  |
| --- | --- | --- |
| TRUE | TRUE | TRUE |
| TRUE | FALSE | TRUE |
| FALSE | TRUE | TRUE |
| FALSE | FALSE | FALSE |

**NOT**

|  |  |
| --- | --- |
| NOT TRUE | FALSE |
| NOT FALSE | TRUE |

**4. What are the values of the following expressions?**

* (5 > 4) and (3 == 5) = False
* not (5 > 4) = False
* (5 > 4) or (3 == 5) = True
* not ((5 > 4) or (3 == 5)) = False
* (True and True) and (True == False) = False
* (not False) or (not True) = True

**5. What are the six comparison operators?**

* (greater than)
* < (less than)
* >= (greater than or equal to)
* <= (less than or equal to)
* == (equal to)
* != (not equal to)

**6. How do you tell the difference between the equal to and assignment operators? Describe a condition and when you would use one.**

Equalto **(==)**: Compares two values to see if they are equal.

Assignment **(=)**: Assigns a value to a variable.

**7. Identify the three blocks in this code:**

**8. Write code that prints Hello if 1 is stored in spam, prints Howdy if 2 is stored in spam, and prints Greetings! if anything else is stored in spam.**

spam = 3

if spam == 1:

print('Hello')

elif spam == 2:

print('Howdy')

else:

print('Greetings!')

**9.If your programme is stuck in an endless loop, what keys you’ll press?**

You would press Ctrl + C to terminate the program's execution and break out of the endless loop.

**10. How can you tell the difference between break and continue?**

**break**: Terminates the current loop and resumes execution at the next statement after the loop.

**continue**: Skips the rest of the current iteration and moves to the next iteration of the loop.

**11. In a for loop, what is the difference between range(10), range(0, 10), and range(0, 10, 1)?**

Range (10): Generates numbers from 0 to 9.

Range (0, 10): Generates numbers from 0 to 9.

Range (0, 10, 1): Generates numbers from 0 to 9 with a step of 1

**12. Write a short program that prints the numbers 1 to 10 using a for loop. Then write an equivalent program that prints the numbers 1 to 10 using a while loop.**

# Using for loop

for i in range(1, 11):

print(i)

# Using while loop

num = 1

while num <= 10:

print(num)

num += 1

**13. If you had a function named bacon() inside a module named spam, how would you call it after importing spam?**