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

**True**

**False**

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

**and, or and not**

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

**AND**

|  |  |  |
| --- | --- | --- |
| Operator A | Operator B | Result |
| True | True | True |
| True | False | False |
| False | True | False |
| False | False | False |

**OR**:

|  |  |  |
| --- | --- | --- |
| Operator A | Operator B | Result |
| True | True | True |
| True | False | True |
| False | True | True |
| False | False | False |

**NOT**:

|  |  |
| --- | --- |
| Operator A | Result |
| True | False |
| 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?

* Less than
* Less than or equal to
* Equal to
* Greater than
* Greater than or 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.

The “=” is an assignment operator which assigns a value to a variable.

Ex: a=5, here value 5 is assigned to variable a

The “==” is relational operator which checks if the value on both sides are equal

a==b, here the value of and b are checked if they are equal or not

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs') #Block A

If spam > 5: #Block A

print('bacon'). #Block B inside Block A

else: #Block A

print('ham') #Block C inside Block A

print('spam') #Block A

print('spam')

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=1

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?

Ctrl+c

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

Break will terminate the loop and skip to the next line after loop

Continue is used to exit from the current iteration of the loop and continues to the next iteration.

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

Range(0) – outputs series of numbers from the 0 to 9

Ex: for x in range(10):

print(x)

O/P: 0,1,2,3,4,5,6,7,8,9

range(0,10): Generates numbers from 0 to 9

Ex: for x in range(0,10):

print(x)

O/P: 0,1,2,3,4,5,6,7,8,9

range(0,10,1) : Increments the numbers with 1 starting from 0

Ex: for x in range(0,10,1):

print(x)

O/P: 0,1,2,3,4,5,6,7,8,9

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.

for i in range(1,11):

print(i)

**while**

i=1

while(i<11)

print(i)

i=i+1

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

spam.bacon()