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

**Ans:**

0 & 1.

0 🡪 False, 1 🡪 True.

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

**Ans:**

AND, OR & 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 ).

**Ans:**

AND Table

True True True

True False False

False True False

False False False

OR Table

True True True

True False True

False True True

False False False

Not Table

True False

False True

4. What are the values of the following expressions?

(5 > 4) and (3 == 5)

not (5 > 4)

(5 > 4) or (3 == 5)

not ((5 > 4) or (3 == 5))

(True and True) and (True == False)

(not False) or (not True)

**Ans:**

False

False

True

False

False

True

5. What are the six comparison operators?

**Ans:**

<, >, ==, >=, <=, !=

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

**Ans:**

equal to ‘==’ is an comparison operator which is used to check whether two expressions or values are equal or not. Where assignment operator ‘=’ is used to assign a value to a variable.

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

print('spam')

print('spam')

**Ans:**

spam = 0

if spam == 10:

print('eggs')

if spam > 5:

print('bacon')

else:

print('ham')

print('spam')

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.

**Ans:**

spam = int(input('Enter a digit:'))

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?

**Ans:**

Ctrl + C

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

**Ans:**

**break:** break statement terminates the execution of the loop and brings the flow of control out of the loop and executes the statements after the loop.

**continue:** continue statement skips the current iteration of the loop and takes at the beginning of 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)?

**Ans:**

Although, all these 3 commands gives same result but they have different structures.

Just range(10) is including only stop, no start and step size.

range(0,10) is including only start & stop, no step size.

range(0,10,1) is including only start, stop & step sizes

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.

**Ans:**

for i in range(1,11):

print(i)

i = 1

while i <= 10:

print(i)

i += 1

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

**Ans:**

import spam

spam.bacon()