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

Ans: True and False are the two values of the Boolean data type. We can simply write it without cotes True and False. Also True represents 1 and False represents 0.

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

Ans: AND, OR & NOT are the three different types of Boolean operators.

**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

A B Q

0 0 0

0 1 0

1 0 0

1 1 1

OR

A B Q

0 0 0

0 1 1

1 0 1

1 1 1

NOT

A Q

0 1

1 0

A B C A OR B D

1 1 1 1 1

1 1 0 1 0

1 0 1 1 1

1 0 0 1 0

0 1 1 1 1

0 1 0 1 0

0 0 1 0 0

0 0 0 0 0

**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)) → True

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

(not False) or (not True) → True

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

Ans: Less than ( < ), less than or equal to ( <= ), greater than ( > ), greater than or equal to ( >= ), equal to ( == ), and 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.**

Ans: The “=” is an assignment operator. We use “=” to assign values to a variable whereas “==” operators are used to check whether 2 operands are equal or not. If equal it returns True else return False.

**7 Ans.**

spam = 0

Block1

if spam == 10:

print('eggs')

Block2

if spam > 5:

print('bacon')

Block3

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 = 23

if spam == 1:

print("Hello")

if spam == 2:

print("Howdy")

if spam != 1 and spam !=2:

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: If we want to jump out of the loop/block we use break keyword and “continue” will not jump out of the loop instead it will only skip the remaining statements below “continue” keyword

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

Ans: range(10) → In this range we have only given one value i.e 10 which will be considered as end value of range by default and since start values is not specified 0 is considered by default. It will create range from 0-9 excluding 10.

range(0, 10) →In this start values as will as end value is also specified. It will consider range from 0-9 excluding 10.

range(0,10,1) → In this step is specified i.e 1, by default step values is 1(if not specified). Basically, it will increment values in range by a specified number. We can’t do step=0 it will give a value error.

**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)

—-----------------------------------------------------------------------------------------

a=0

while a<=10:

print(a)

a+=1

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

Ans: spam.bacon()