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

x bool;

0,1

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

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 ).

| A | B | Operator | Result |
| --- | --- | --- | --- |
| True | True | OR | True |
| True | False | OR | True |
| False | False | OR | False |
| False | True | OR | True |
| True | True | AND | True |
| True | False | AND | False |
| False | False | AND | False |
| False | True | AND | False |
| True | NA | Not A | False |
| False | NA | Not A | True |

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) - True and False -> False

not (5 > 4) - not(True) -> False

(5 > 4) or (3 == 5) - True or False -> True

not ((5 > 4) or (3 == 5)) - not(true or false) -> not (true) -> False

(True and True) and (True == False) -> False

(not False) or (not True) - True or False - >True

5. What are the six comparison operators?

<less than

>greater than

>=greater than equal to

<=less than equal to

!=not equal to

== 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.

equal to is expressed by ==

for ex: to check if 1 is equal to 2 , 1 == 2

assignment is expressed by =

for ex: to assign value 1 to a , write a = 1

7. Identify the three blocks in this code:

spam = 0

if spam == 10: //block 1

print('eggs')

if spam > 5: //block 2

print('bacon')

else://block 3

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.

spam = 2

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?

control + C

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

continue will not end the loop it will only skip the following line of code after continue statement where as break will end the loop and exit out of the loop.

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

All of them will do the same thing, iterate over the value from 0 to 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 Loop:**

for i in range(10):

print(i + 1)

**while Loop:**

while (i>0):

print(i)

if (i ==10):

break

else:

i+=1

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

by creating an object of spam and then using dot operator to call bacon()

obj = spam()

obj.bacon()