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

**Ans:** Boolean values can be True, Flase. Machine will interpret as 1 for true and 0 for false.

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

**Ans:**

1. comparision operator: used for comparing two different variables

2. logical operators: And , or, and, not

3. combination of both logical and comparision operator: It is combination which used to compare and also to check multiple logics

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 ).

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?

Equal ==

Greater than >

Less than <

not Equal to !=

Greater than Equal to >=

Less than 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:**

Assignment operator uses one Equal sign and Equal operator use one equal sign. Assignment sign use to assign value to variables on the other hand equal sign is used to check logic.

7. Identify the three blocks in this code:

spam = 0

Block 1: check logic whether spam == 10

if spam == 10:

print('eggs')

Block 2: check logic whether spam > 5

if spam > 5:

print('bacon')

else:

Block 3: check logic whether spam is any other value

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 = int(input())

if spam ==1:

print(‘Hello’)

elif sapm == 2:

print(‘Howdy’)

else:

print(‘Greetings!’)

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

**Ans:** Ctrl + C or Stop button in menu

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

**Ans:**

Break statement is used to check the condition and break the flow of the process. After break statement that respective loop will be stopped from executing.

**eg:** while using while loop to avoid infinite itteration break statement can be used to stop itterating infinite times.

**Continue:** Continue statement is used to skip the rest of the code inside the loop that to for current itteration only.

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

**Ans:**

In general output generated will not have difference for all the three given range. There is difference in details presented in all the range function. In the first one starting number is not defined and what frequency is not defined. In the second one starting element is defined and ending element is defined but frequency is not defined. On the other hand third one has all the elements were defined.

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:**

**Using for loop:**

For a in range(1,11):

print(a)

**Using while loop:**

a = 0

while a<10:

print(a+1)

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.bancon() or from spam import bacon