

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

Ans: True and False are 2 boolean values, are used to mention if an expression is returning True or false value

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

And: AND: check if both the conditions sre true, if both are True then will return True else will return false

OR: check if either of the conditions true, if both are False then will return False else will return True

NOT: negate the value... if condition is True then return false, and fasle then true

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 ).

Condition 1	Condition1	AND
True	True	True
False	True	False
True	False	False
False	False	False

Condition 1	Condition1	OR
True	True	True
False	True	True
True	False	True
False	False	False

Condition 1	NOT
True	False
False	False

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?

>	greater than
<	less than
>=	greater than equal to
<=	less than equal to
==	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.

Assignment operator (=)-- used to assign a value to a variable eg age=18

Conditional Operator (==)- used to check if 2 values are equal eg (1+3)==(2+2) returns True

7. Identify the three blocks in this code:

**1st block:**

```
spam = 0
```

```
if spam == 10:
```

```
    print('eggs')
```

**2nd block:**

```
if spam > 5:  
    print('bacon')
```

**3rd block**

```
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.

```
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 / stop button on screen

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

when break statement comes, it terminates the execution of the current loop and passes the control over the next loop or main body,

When continue keyword, it skips the current iteration and executes the very next iteration in the loop.

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

Ans: There is no difference in the 3 codes.

range(0,10)- explicitly mentions the lower and the upper bound

range(0,10,1)- explicitly mentions the lower and the upper bound and the step number

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(10):
```

```
    print(i+1)
```

```
i=1
```

```
while i<11:
```

```
    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?

```
spam.bacon()
```