

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

Ans. Two values of Boolean data type are True and False, we write them as true and false or 0 and 1 python interpret that as well.

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. True and True == True True or True == True not True == False

True and False == False True or False == True not False == True

False and True == False False or True == True

False and False == False False or 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. (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?

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. In assignment operator we use '=' operator and in equal to operator we use '==' operator
assigning a variable 'number' with 10

```
number = 10
```

and when we want to check whether number is equal to 10 then

```
number == 10, return bool value in this case true
```

7. Identify the three blocks in this code:

```
1. spam = 0
2. if spam == 10:
3.     print('eggs')
4. if spam > 5:
5.     print('bacon')
6. else:
7.     print('ham')
8.     print('spam')
9.     print('spam')
```

Ans. first block is from 2 line to 3 line

second block is from 4 line to 5 line

third block is from 6 line to 9 line

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. if (spam==1):

```
    print('Hello')
```

else if (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 code will not allow for or while loop to enter into the next iteration and start to execute next block of code whereas continue skips the code below it in that iteration and execute 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. range tells for loop how many iteration to do range has three parameter start, stop and step

range(10) tells for loop to go from loop 0 to loop 9 by default start is from 0

range(0, 10) its is same as previous we can say from where to start for loop, in this case from zero

range(0, 10, 1) last parameter tells what step size to take

There is no difference as such because the start and step parameters given here are the same as default.

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)
```

```
j = 0
```

```
while j<10:
```

```
    print(j+1)
```

```
    j++
```

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

Ans. from spam import *

bacon()