

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

- True and False are the two values of the Boolean type.
- True==1 and False==0

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

- And , Or and Not are the three 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 evaluates to).

- Not operator

A	NOT A
True	false
False	True

- And operator

A	B	A And B
True	True	True
False	True	False
True	False	False
False	False	False

- Or operator

A	B	A or B
True	True	True
False	True	True
True	False	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?

- The six comparison operators are
 - a) ==
 - b) !=
 - c) >
 - d) <
 - e) >=
 - f) <=

6. How do you tell the difference between the equal to and assignment operators? Describe a condition and when you would use one.

- '==' is used as a equal to operator and '=' is used as assignment operator.
- == is used for comparison
Eg is 8==10. No it will return false
- = is used to assign a value
Eg a=6.

7. Identify the three blocks in this code:

```
spam = 0
```

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

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

```
if spam > 5:
```

```
    print('bacon')
```

```
else:
```

```
    print('ham')
```

```
    print('spam')
```

```
    print('spam')
```

- First that we are giving spam= 0 . that means it will only give return for that. So we cant input other values to it.
- Second if spam=10 then we will get two output ie eggs as well as bacon
- Third in eles we are getting three outputs.

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("any numbetr"))`
- `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`

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

- Break statement is used end or exit from a loop and Continue is used to skip a code within the loop. After the code is skipped, the loop continues .

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

- All three of them give the same output, but the interpretation is different
- In `range(10)` , it will start from 0 but end at 9 . It excludes the number that is given.
`range(stop)`
- In `range(0,10)`, in the same way it will start from 0 as given and end at 9. `Range(start, stop)`
- In `range(0,10,1)`,`range (start, stop, step)`. Step is for the difference between one number and another 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.

- `For i in range(1,11):`
 `Print(i)`
- `i=1`
`While(i<=10)`
 `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`?

- `From spam import bacon`
`Bacon()`