

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

**ANS-** The two values are - True and False.

They are written as True or 1 and False or 0.

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-**

A	B	AND	OR
---	---	-----	----

1	1	1	1
---	---	---	---

1	0	0	1
---	---	---	---

0	1	0	1
---	---	---	---

0	0	0	0
---	---	---	---

A	NOT
---	-----

1	0
---	---

0	1
---	---

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- 1.** False

2. False

3. True

4. False

5. False

6. True

5. What are the six comparison operators?

**ANS-** > , < , >= , <= , == , and !=

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

**ANS-** Equal operator- '=='

Assignment operator- '='

Assignment operator is used to assign values to a variable or declare it.

Equal operator is used to compare the values of literals or variables.

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')
```

**ANS-**

```
spam = 0  
  
if spam == 10:  
    print('eggs')  
  
if spam > 5:  
    print('bacon')  
  
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.

**ANS-**

```
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?

**ANS-** Ctrl + c

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

**ANS-** Break- when a program encounters break statement in a loop it breaks the loop and gets out of it.

Continue- when a program encounters Continue statement it skips the current iteration of the loop and goes to the next iteration.

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

**ANS-** All the three are same , all of them will run 10 times.

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=0  
while(i<10):  
    print(i+1)  
    i=i+1
```

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  
bacon()
```