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

**Ans->** True and False.

**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 ).**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **OR** |  |  | **op** | **AND** |  |  | **op** | **NOT** | **ip** | **op** |
|  | 0 | 0 | 0 |  | 0 | 0 | 0 |  | 0 | 1 |
|  | 0 | 1 | 1 |  | 0 | 1 | 0 |  | 1 | 0 |
|  | 1 | 0 | 1 |  | 1 | 0 | 0 |
|  | 1 | 1 | 1 |  | 1 | 1 | 1 |

**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?**

**Ans ->** Less than(<),Less than or equal to(<= ),greater than(>),greater than or 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.**

**Ans ->** There are two operators = and ==. = is used to assign value to variable and == operator is used to compare two variables or any value to the another

**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 ->** Corrected Code –

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")

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 stops the flow of the program. And continue maintain the flow of the program . We add continue in any code and after the some step before continue , then it maintain the flow of program.

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

**Ans ->** range(10) : in this the any logic stop at 10-1 position.

range(0,10) : in this the logic is starts from 0 and end at 10-1 position

range(0,10,1) : in the logic starts form 0,end at 10-1 position but form interval of 1 .

**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 ->**

With using for : for i in range(1, 11):

print(i)

With using while: n=1

while n<=10:

print(n)

n+=1

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

**Ans ->** becon(spam)