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

Answer:

|  |  |
| --- | --- |
| Type | Value |
| Bool\_1 | **T**rue (1) |
| Bool\_2 | **F**alse (2) |

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

Answer:

|  |  |
| --- | --- |
| Operator | Application |
| and | All Keywords must be satisfied |
| or | Either of keywords needs to be satisfied |
| not | Excludes the keyword |

**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 ).**

Answer:

1: And:

|  |  |
| --- | --- |
| True and True | True |
| True and False | False |
| False and True | False |
| False and False | False |

2. or:

|  |  |
| --- | --- |
| True or True | True |
| True or False | True |
| False or True | True |
| False or False | False |

3. not:

|  |  |
| --- | --- |
| not(True) | False |
| not(False) | True |

**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?(Relational)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Greater than | Greater than equal to | Less than | Less than equal to | equalto | 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.**

|  |  |  |
| --- | --- | --- |
| Equal to | == | X=5  Print(X==5)  #output is True |
| Assignment | = | X=5  Print(X)  #output is 5 |

**7. Identify the three blocks in this code:**

spam = 0

if spam == 10:#Block 1

print('eggs')

if spam > 5:#Block 2

print('bacon')

else:#Block 3

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=input('Enter the input:')

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?**

Answer:

Use **break** statement in the loop or press **‘ctrl +C’: Keyboard interrupt**

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

Answer:

|  |  |
| --- | --- |
| break | continue |
| The statement terminates the loop in which it is mentioned. | The statement terminates the loop for that iteration and continues for remaining |
| If in succession loop: it moves to the next loop(or block)  If in nested loop: it moves to outside loop | It will only terminate current iteration and does not move to next or outside loop unless all iterations are done |
| n='Abhinav'  for c in n:  if c=='i':  break  print(c)  output:  A  b  h | n='Abhinav'  for c in n:  if c=='i':  continue  print(c)  output:  A  b  h  n  a  v |

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

Answer:

General format for range function is range(a,b,c)

Here a is the starting point and b is the ‘end point-1’ whereas c is increment or decrement

|  |  |
| --- | --- |
| **range(10)** | It will generate the list of 10 values:  0 1 2 3 4 5 6 7 8 9 |
| **range(0, 10)** | Here it will be same as above however the starting and end points are specified by the user  0 1 2 3 4 5 6 7 8 9 |
| range(0,10,1) | Same output with default increment 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.**

x=range(1,11)

for i in x:

print(i,end=' ')

print('\n')

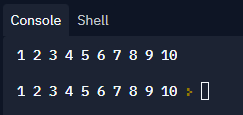
i=1

while i!=11:

print(i,end=' ')

i=i+1

output:



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

Answer:

Import spam

spam.bacon()