**PYTHON BASIC ASSIGNMENT\_2 - SUBMITTED BY SAMUEL DEVDAS**

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

Ans. True and False are the two boolean data type values. Declaring a variable and then using function ‘bool’ will result in console displaying the boolean value of the variable. Example: x=1; bool(x) will display value ‘True’.

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

Ans. AND, OR and NOT are the 3 types of Boolean opearators.

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 ).

|  |  |  |  |
| --- | --- | --- | --- |
| INPUT1 | INPUT2 | AND OUTPUT | OR OUTPUT |
| False | False | False | False |
| False | True | False | True |
| True | False | False | True |
| True | True | True | True |

|  |  |
| --- | --- |
| INPUT | NOT OUTPUT |
| False | True |
| True | 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?

Ans. ‘<’ - Less than, ‘>’- Greater than, ‘<=’-Less than or equal to, ‘>=’- Greater than or equal to,’==’- Equal to, ‘!=’- Not equal to , are the six comparison operators.

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

Ans. ‘=’ or ‘single equality sign’ denotes an assignment operator, whose function is to assign or store any value into a variable. Example: x=1, print(x) : assigns value of integer ‘1’ to the declared variable ‘x’, and thus, prints ‘1’ in the console output.

‘==’ or ‘equal to’ is a comparison operator which is used to compare any two values based on a previous conditions and result of the comparison could be either ‘True’ or ‘False’. Example: x=1, y=2,

x==y ---> results in ‘False’ displaying in the console output.

7. Identify the three blocks in this code:

spam = 0

if spam == 10:

print('eggs')

#“This the first Block”

if spam > 5:

print('bacon')

#“This the Second Block”

else:

print('ham')

print('spam')

print('spam')

#“This is the third Block”

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.

spam=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?

Ans. Press CTRL+C

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

Ans.

A.‘break’ statement can be used inside a loop to terminate a loop, after setting a predefined condition. If the predefined condition inside the loop is satisfied, ‘break’ stops loop and also stops the next line of code from executing.

Example: for i in range(5):

if i==3:

break

print(i)

0

1

2

3

4

B.‘continue’ statement can be used to skip the next line of code from executing for the predefined condition in the loops.

Example: for i in range(5):

if i==3:

continue

print(i)

0

1

2

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

Ans. range(10), range(0, 10), and range(0, 10, 1) denote the same expression and give the same output, because syntax for the range denotes ‘range(start, stop[, step])’, where ‘start’ is first index position, ‘stop’ is last index position and ‘step’ is the ‘step size and direction’ for range traversal.

Thus for loop output for all three condition above is:

0

1

2

3

4

5

6

7

8

9

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. USING FOR LOOP:

for i in range(10):

print(i)

USING WHILE LOOP:

i=0

while i<10:

print(i)

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. Spam= [1,2,3,4]

Spam.bacon()