**Assignment no. 2**

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

: - “True” and “False” are the two Boolean data type. You write these Boolean data type exactly as shown.

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

: - “AND “operator

“OR” operator

“NOT” operator

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).

|  |  |  |
| --- | --- | --- |
| **“AND “operator** | **‘OR’ operator** | **‘NOT’ operator** |
| True AND True=True | False OR False=False | NOT True= False |
| False AND False=False | True OR True=True | NOT False=true |
| False AND True =False | True OR False=True |  |
| True AND False=False | False OR True=True |  |
|  |  |  |

**4. What are the values of the following expressions?**

(5 > 4) and (3 == 5)

: True AND False= False

not (5 > 4)

: NOT True = False

(5 >4) or (3 == 5)

: True OR False=True

not ((5 > 4) or (3 == 5))

(5 > 4) is True

(3 == 5) is False

: True OR False =True

: NOT True = False

(True and True) and (True == False)

True AND True=True

True==False=False

: True AND False=False

(Not False) or (not True)

NOT False= True

NOT True=False

: True OR False=True

5. What are the six comparison operators?

‘==’ (equal to)

‘! =’ (not equal to)

‘>’ (greater than)

‘<’ (less than)

‘>=’ (greater than or equal to)

‘<=’ (less than or 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 operator (‘==’): -used for comparison

Assignment operator (‘=’): - used to assign a value to a variable.

This I the main difference when we write these two operators

Assignment operator:

X=’subodh’

Comparison operator:

X=1

Y=2

If x==y:

(Here we checking if x and y are equal)

7. Identify the three blocks in this code:

**Block 1 (if)**

spam = 0

if spam == 10:

print(‘eggs’)

‘variable ‘spam’ holds the value of ‘0’ so the print(‘eggs’) not be executed.

**Block 2 (‘if-else)**

if spam > 5:

print(‘bacon’)

else:

print(‘ham’)

else block is executed printing ‘ham’

**Block 3 (print)**

print(‘spam’)

print(‘spam’)

this line of code not part of any conditional statement so always be executed.

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=1

if spam==1:

print('hello')

elif spam==2:

print('howdy')

else:

print('greeting!')

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?

: -The ‘break’ statement is used to exit the current loop prematurely.

: - ‘continue’ statement is used to skip current iteration of loop and move to the next iteration without existing the loop entirely.

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

: - range (10)

With single argument

this statement print value from 0 to 9

: - range (0, 10)

With two arguments

Starting value is 0, up to 9. not include 10

: -range (0, 10, 1)

With three arguments

0 is the starting value

10 is the ending value

1 is the step value

-All three of this expression will produce the same result. But using different arguments.

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)

#while loop

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?

Import *spam*

result=spam. bacon ()