ASSIGNMENT 2

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

Ans -True and False are the two values of Boolean data type. We write them as 1st alphabet in capital and the rest in small like ‘True’ and ‘False’.

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

Ans- And, Or and Not are three different types of Boolean operators. And operator compares two expressions and returns a value of true if both expressions are true. Or operator compares two expressions and returns true if one expression or both expressions are true. Not operator returns true when expression is false and returns false when expression is true.

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- AND :

True and True = True

True and False = False

False and True = False

False and False = False

OR :

True or True = True

True or False = True

False or True = True

False or False = False

NOT :

not True = False

not False = True

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 - (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 –

|  |  |  |
| --- | --- | --- |
| OPERATOR | NAME | EXAMPLE |
| == | Equal | x==y |
| != | Not equal | x!=y |
| > | Greater than | x>y |
| < | Less than | x<y |
| >= | Greater than or equal to | x>=y |
| <= | Less than or equal to | x<=y |

6. How do you tell the difference between the equal to and assignment operators? Describe a

condition and when you would use one.

ANS – A single equal mark or = is used to assign value to a variable is an assignment operator that stores a value in variable and == or double equal mark is used to compare two values in which it will check the datatype and evaluates to a Boolean, is equal to operator ( equal to operator returns True or False). The equal to operator are used in logical and conditional statements.

If we assign x as 2, we write int x=2, this is a condition where we use assignment operator. If we compare x and 2, we write if (x==2) , either true or false, this is a condition where we use equal to operator.

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’) #block 1

if spam > 5:

print(‘bacon’) #block 2

else:

print(‘ham’) #block 3

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 –

spam= int (input(“Input a number”))

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 – If our programme is stuck in an endless loop we press ctrl+c.

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

ANS – Break : It alters the flow of loop by jumping out from it after specified condition is met. The break statement will move the execution outside and just after a loop.

for i in range(1o):

if i==5:

break

print(i)

print(“hello”)

Output

0

1

2

3

4

hello

Continue : It is used to skip the remaining code inside a loop for current code only. The continue statement will move the execution to the start of the loop.

for i in range(5):

if i==3:

continue

print(i)

Output

0

1

2

4

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

ANS – In a for loop , range(10) means 0 – 9, range(0,10) means 0- 9 , range(0,10,1) means it starts from 0 with the difference of 1 to 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 – For Loop

for i in range(1,11):

print(i)

While loop

i=1

while i <= 11 :

print(i)

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

importing spam?

ANS – import spam

spam

def bacon() :

bacon()