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

Sol. Two values of Boolean data type are – True, False

We should always write first letter of them in uppercase and other letters in lowercase as shown below :

True, False

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

Sol. 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 ).

Sol. True and True is False

False and False is False

True and False is False

False and True is False

True or True is true

False or False is False

False or True is True

True or False is True

Not False is True

Not True is False

4. What are the values of the following expressions?

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

**Sol. False**

not (5 > 4)

**Sol. False**

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

**Sol. True**

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

**Sol. False**

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

**Sol. False**

(not False) or (not True)

**Sol. True**

5. What are the six comparison operators?

Sol. ==,!=,<,>,<=,>=

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

Sol. equal to is == , which is a comparison operator

Assignment is =, which helps to store value in variable

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')

Sol. Block 1🡪 print('eggs')

Block 2🡪 print('bacon')

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.

Sol.

num=int(input("Enter number"))

if num==1:

print("Hello")

elif num==2:

print("Howdy")

else:

print("Greetings!")

9.If your programme is stuck in an endless loop, what keys you’ll press?

Sol. CTRL + C

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

Sol. Break statement stops the entire process of the loop. Continue statement only stops the current iteration of the loop.

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

Sol. They all means same only

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.

Sol.

**Using for loop :**

for i in range(1, 11):

print(i)

**Using while loop :**

i = 1

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?

Sol. This function can be called with spam.bacon().