**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 the boolean data type. When the value is returned, true = 1 and false = 0

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

**Ans.** The three Boolean operators are and, or and 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).

**Ans.**

True and True is True

True and False is False

False and True is False

False and False is False

True or True is True

True or False is True

False or True is True

False or False is False

not True is False

not False is 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**. Six comparison operators are **==, !=, <, >, <= and >=**

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

**Ans.** == is the equal to operator that compares two values and evaluates to a Boolean, while = is the assignment operator that stores a value in a variable.

7==8

False

a=2

a

2

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')

if spam > 5:

print('bacon')

else:

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.

**Ans.**

spam=int(input("Please enter a value: "))

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.** An endless loop can be stopped by pressing CTRL + C

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

**Ans.** The break statement terminates the whole iteration of a loop whereas continue skips the current iteration.

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

**Ans.** The output of the three will be the same.

range(10): signifies a range from 0 to 9

range(0, 10): signifies a range starting from 0 and ending at 9

range (0, 10, 1): signifies a range starting from 0 and ending at 9 with an increment of 1 on each iteration

**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** i **in** range(1,11):

print(i)

a **=**1

**while** a **<=** 10:

print(a)

a=a**+**1

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

**Ans.** spam.bacon()