

1. What are the Boolean data type's two values? How do you go about writing them?

sol: True and 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 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) 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 different types of reference operators?

sol: ==, !=, <, >, <=, and >=

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

sol: assignment operator "=" stores a value in a variable whereas == equal to operator compares two values and gives boolean output is true or false.

7. Describe a condition and when you would use one.

sol: condition is a statement that gives us boolean value and used in flow control statement.

8. Recognize the following 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:

```
print('eggs')
if spam > 5:
    print('bacon')
else:
    print('ham')
print('spam')
```

9. Create a programme that prints. If 1 is stored in spam, prints Hello; if 2 is stored in spam, prints Howdy; and if 3 is stored in spam, prints Salutations! if there's something else in spam.

sol:

```
spam=int(input())
```

```
if spam == 1:
```

```
    print('Hello')
```

```
elif spam == 2:
```

```
    print('Howdy')
```

```
else:
```

```
    print('Greetings!')
```

10.If your programme is stuck in an endless loop, what keys can you press?

sol; control+C

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

SOL: Break statement breaks the loop and comes out of loop.

continue statement send the control back to start of loop.

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

sol: all three are same

13. Using a for loop, write a short programme that prints the numbers 1 to 10 Then, using a while loop, create an identical programme that prints the numbers 1 to 10.

sol:

```
for i in range(1,11):
```

```
    print(i)
```

```
a=1
```

```
while (a<11):
```

```
print(a)
```

```
a=a+1
```

14. If you had a `bacon()` function within a `spam` module, what would you call it after importing `spam`?

sol: `import spam`

`spam.bacon()`