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**SUBJECT: Full Stack Data Science**

### **ANSWERS**

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

ANSWER::

True and False are the two values of Boolean datatype. We write them in True and False.

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

ANSWER::

The three different types of Boolean operators are 1.and 2. or 3. 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 evaluates).

ANSWER:

A	B	A AND B	A OR B	NOT A
False	False	False	False	True
False	True	False	True	True
True	False	False	True	False
True	True	True	True	False

4. What are the values of the following expressions?

(5 > 4) and (3 == 5) Ans: False

not (5 > 4) Ans: False

(5 > 4) or (3 == 5) Ans: True

not ((5 > 4) or (3 == 5)) Ans: False

(True and True) and (True == False) Ans: False

(Not False) or (not True) Ans: True

5. What are the six comparison operators?

ANSWER:

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

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

ANSWER:

In relational operators equal to (==) is used for check the condition and output is Boolean values.

In assignment operator (=) is used for assign a value to a specific variable.

Ex: a=10, b=10#assign a value (=)

If (a==b): # it gives output true or false (==)

print (True)

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')
```

ANSWER:

```
if spam == 10: #block1
```

```
    print('eggs')
```

```
if spam > 5: #block2
```

```
    print('bacon')
```

```
else: #block3
```

```
    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.

ANSWER:

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

```
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?

ANSWER:

Ctrl + c

Here ctrl + c works as cancel

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

ANSWER:

break and continue are flow control statements

In a repetitive control statements loop terminates while condition is false, for some cases we need to terminate our loop immediately for that we have to use break.

In reparative control statements continue is used for skip the current iteration and continue to the next iteration.

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

ANSWER:

In range (10) the initial value is 0 and iterates till 10-1 i.e., 9, its take default 1 step value for iteration.

In range (0,10) this is as same as before the initial value is 0 and iterates till 10-1 i.e., 9, its take default 1 step value for iteration.

In range (0,10,1) the initial value is 0 and iterates step 1 value till 10-1 i.e., 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.

ANSWER:

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

```
    print (i, end=" ")
```

```
while loop
```

```
i=1
```

```
while(i<=10):
```

```
    print (i, end=" ")
```

```
    i=i+1
```

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

ANSWER:

```
Spam.bacon ()
```