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

Ans: True=1   False=0

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

Ans: AND, OR, NOT

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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

i/p1	i/p2	o/p
0	0	0
0	1	0
1	0	0
1	1	1

OR

i/p1	i/p2	o/p
0	0	0
0	1	1
1	0	1
1	1	1

Not

i/p	o/p
0	1
1	0

----

4. What are the values of the following expressions?

(5 > 4) and (3 == 5)   ------------[0 and 0]=0(False)

not (5 > 4)-------------------------0(False)

(5 > 4) or (3 == 5)------------------[1 or 0]=1(True)

not ((5 > 4) or (3 == 5))-----------0 (False)

(True and True) and (True == False)---[0 and 0] and[0]=0(False)

(not False) or (not True)------------[1 or 0]=1 (True)

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5. What are the six comparison operators?

Ans:[>, < ,<=,>=,!=,==]

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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 assignment operator eg. A=2

      "==" is comparison operator eg.3==5 (ans is False)

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7. Identify the three blocks in this code:

spam = 0

[if spam == 10:

print('eggs')]---1st block

[if spam > 5:

print('bacon')]—2nd block

[else:

print('ham')

print('spam')]---3rd block

print('spam')

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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 = 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?

Ans : Interuupt kernel (stop button)

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

Ans: Break -once condition is true terminate the loop with break

   Continue-If condition matches it skip the current iteration and continue with further iterations(loop)

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

Ans: range(10) o/p=[0,1,2,3,4,5,6,7,8,9] start_index=0(default), stop_index=10

   range(0,10) o/p=[0,1,2,3,4,5,6,7,8,9] start_index=0 stop_index=10

    range(0,10,1) o/p=[0,1,2,3,4,5,6,7,8,9] start_index=0 stop_index=10 step_size=1

Conclusion: All three expressions gives same o/p

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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: **Using "for –loop"**

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

    print(i)
```

Using "while-loop"

```
i=1

while i in range(1,11):

    print (i)

    i=i+1
```

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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.bacon()