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

|  |
| --- |
| **Answer:**  True and False are to values of Boolean data type. |

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

|  |
| --- |
| **Answer:**  AND  NOT  OR |

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 ).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Answer:**  **AND**   |  |  |  | | --- | --- | --- | | **A** | **B** | **A AND B** | | True | True | True | | True | False | False | | False | True | False | | False | False | False |   **OR**   |  |  |  | | --- | --- | --- | | **A** | **B** | **A OR B** | | True | True | True | | True | False | True | | False | True | True | | False | False | False |   **NOT**   |  |  | | --- | --- | | **A** | **NOT A** | | True | False | | False | 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)

|  |
| --- |
| **Answer:**  (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?

|  |
| --- |
| **Answer:**  1. Less than (<)  2. Greater than (>)  3. Less than or equal to (<=)  4. Greater than or equal to (>=)  5. Equal to (==)  6. Not equal to (!=) |

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

|  |
| --- |
| **Answer:**  = symbol is defined as assignment operator.  It requires one variable on its left and an expression on its right. Value of the expression on right is assigned to variable on left.  == is a equal to operator.  It returns true if operands on either side are equal, otherwise it returns false |

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:**  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.

|  |
| --- |
| **Answer:**  spam = int(input("input 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?

|  |
| --- |
| **Answer:**  Ctrl + C |

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

|  |
| --- |
| **Answer:**  Break statement in terminates the current loop and resumes execution at the next statement.  The break statement can be used in both while and for loops.  The continue statement returns the control to the beginning of the loop.  The continue statement rejects all the remaining statements in the current iteration of the loop and moves the control back to the top of the loop.  The continue statement can be used in both while and for loops. |

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

|  |
| --- |
| **Answer:**  All three are same.  For loop will be get executed with index from 0 to 9 with jump of 1. |

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:**  **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?

|  |
| --- |
| **Answer:**  Spam.bacon() |