Python worksheet 1

1.The correct answer is C) %.

The % operator is used to calculate the remainder of a division operation. For example, 17 % 5 would give you 2, because 17 divided by 5 leaves a remainder of 2.

2.The correct answer is B) 0.

In Python 2, the // operator performs integer division, which means it returns the integer part of the division result, discarding any fractional part.

So, 2//3 would perform integer division of 2 by 3, resulting in 0, because 2 is less than 3.

3.The correct answer is C) 24.

In Python, the << operator is the left shift operator, which shifts the bits of the number to the left by the specified number of positions.

6 in binary is 110. Shifting it 2 positions to the left results in 11000, which is equal to 24 in decimal.

So, 6<<2 is equal to 24.

4.The correct answer is D) 0.

In Python, the & operator is the bitwise AND operator, which performs a binary operation on two numbers.

6 in binary is 110 and 2 in binary is 10. Performing a bitwise AND operation on these two numbers results in 000, which is equal to 0 in decimal.

So, 6&2 will give 0 as output.

5.The correct answer is B) 6.

In Python, the | operator is the bitwise OR operator, which performs a binary operation on two numbers.

6 in binary is 110 and 2 in binary is 10. Performing a bitwise OR operation on these two numbers results in 110, which is equal to 6 in decimal.

So, 6|2 will give 6 as output.

6.The correct answer is C) the finally block will be executed no matter if the try block raises an error or not.

In Python, the finally keyword is used in conjunction with try and except blocks to define a block of code that will be executed regardless of whether an exception is thrown or not. The finally block is used to perform cleanup or release resources, such as closing files or connections, that were opened in the try block.

The finally block is executed after the try and except blocks, and it is guaranteed to be executed even if an exception is thrown or not. This means that the code in the finally block will always be executed, regardless of the outcome of the try block.

So, option C is the correct answer.

7.The correct answer is A) It is used to raise an exception.

In Python, the raise keyword is used to explicitly raise an exception. When raise is used, it interrupts the normal flow of the program and passes control to the nearest except block that matches the type of exception being raised.

8.The correct answer is C) in defining a generator.

In Python, the yield keyword is used to define a generator, which is a special type of function that returns an iterator. A generator is a function that produces a sequence of values, but instead of computing them all at once and returning them in a list, it yields each value one at a time, allowing the caller to iterate over the sequence.

9.A) _abc C) abc2

In Python, a valid variable name must start with a letter (either uppercase or lowercase) or an underscore (_). It can be followed by any number of letters, digits, or underscores.

A) _abc is a valid variable name because it starts with an underscore and is followed by letters.
C) abc2 is a valid variable name because it starts with a letter and is followed by letters and a digit.

10.The correct answers are:

A) yield B) raise

In Python, yield and raise are keywords.

A) yield is a keyword used to define generators, which are special types of functions that produce a sequence of values.
B) raise is a keyword used to raise an exception, which is an error that occurs during the execution of a program.