# Answer File - Fliprobo || Python Worksheet || Task 4

**Batch -** DS2406
**Name -** Sakshi Jha

**Answers to Questions 1-10**

**Ans - 1. C.** % operator is used to calculate the remainder in a division operation.

**Ans - 2. B.** 0
In Python, the // operator denotes integer division, which returns the floor of the quotient. The floor division of ⅔ = is 0, because it represents the largest integer less than or equal to the result of the division.

**Ans- 3. C**. 24

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

For the expression `6 << 2`:

- Convert 6 to binary: 6 = $110_2$
- Left shift the bits by 2 positions: $110_2$ becomes $11000_2$
- Convert back to decimal: $11000_2$ = 24

Therefore, the result of `6 << 2` is 24.

**Ans - 4. A.** 2

In Python, the `&` operator is the bitwise AND operator, which performs a bitwise AND operation between the corresponding bits of two integers.

Let's evaluate `6 & 2`:

- Convert 6 to binary: 6 = $110_2$
- Convert 2 to binary: 2 = $010_2$

Performing the bitwise AND operation:

result of `6 & 2` is 2.

**Ans - 5. D**. 6

In Python, the `|` operator is the bitwise OR operator, which performs a bitwise OR operation between the corresponding bits of two integers.

Let's evaluate `6 | 2`:

- Convert 6 to binary: $6 = 110_2$
- Convert 2 to binary: $2 = 010_2$

Performing the bitwise AND operation:

result of `6|2` is 6.

**Ans - 6. C**. The '`finally`' block will be executed no matter if the '`try`' block raises an error or not

The '`finally`' keyword is used in exception handling to define a block of code that will be executed no matter whether an exception is raised or not in the preceding try block. This ensures that clean-up actions or necessary finalizations are performed regardless of whether an exception occurred or not.

**Ans - 7. A.** It is used to raise an exception.

In Python, the `raise` keyword is used to explicitly raise an exception. When `raise` is used in a program, it causes an exception to occur, which can then be caught and handled by an appropriate exception handler (using `try` and `except` blocks).

**Ans - 8. C. I**n defining a generator.

The `yield` keyword in Python is primarily used in defining a generator function or an iterator. Generators are functions that return an iterable set of items, one at a time, in a special way using `yield` instead of `return`.

**Ans -9. A**) _abc and **C**) abc2

In Python, valid variable names must adhere to certain rules:

Variable names can only contain letters (both uppercase and lowercase), digits, and underscores (_).

Variable names cannot start with a digit.

Let's evaluate each option:

A) _abc - Valid variable name because it starts with an underscore and contains only letters and an underscore.

B) 1abc - Invalid variable name because it starts with a digit.

C) abc2 - Valid variable name because it contains only letters and digits, and does not start with a digit.

D) None of the above - This is not correct because options A and C are valid variable names.

**Ans - 10.** A) Yield and B) Raise

Both options A and B are keywords in Python.