Q.1 How memory is managed in python?

ANS:

1. **Private Heap:** All objects and variables are stored in a private heap that the Python memory manager handles.
2. **Dynamic Allocation:** Memory is dynamically allocated based on the object type at runtime.
3. **Garbage Collection:** Python automatically frees up memory through garbage collection, which removes objects that are no longer in use.
4. **Memory Pooling:** Python optimizes memory allocation for small objects using memory pools to reduce allocation overhead.

Q.2 What is the purpose continue statement in python?

ANS: The continue statement in Python is used to skip the rest of the code inside the current loop iteration and immediately proceed to the next iteration.

EX:

```
For I in range(5)
If I == 4
Continue
Print(i)
```

Output:

0

1

2

3

Q.3 What are negative indexes and why are they used?

ANS: Negative indexes in Python are a way to access elements from the end of a sequence (like lists, tuples, or strings) instead of the beginning.

- **Convenience:** They provide a convenient way to access elements without needing to calculate the length of the sequence.

- **Code Readability:** They can make the code more readable, especially when working with sequences where the length might change dynamically.