**Python Advanced Assignment 14**

1. What are the new features added in Python 3.8 version?

Ans-) Python 3.8 introduced several new features, including:

* The walrus operator (:=) which allows you to assign values to variables as part of an expression.
* Positional-only parameters for functions, which allow you to specify that certain function parameters can only be passed by position, not by name.
* f-strings now support a new = specifier that allows you to format strings with a particular width and alignment.
* The functools library has a new cache decorator that can be used to cache function results.
* The typing module has several new types, including TypedDict and Final.

2. What is monkey patching in Python?

Ans-) Monkey patching is a technique in Python where you dynamically modify the behavior of a class or module at runtime by replacing its attributes or methods with new ones. This can be useful in certain situations, such as when you need to add functionality to an existing library or framework that doesn't provide the feature you need.

3. What is the difference between a shallow copy and deep copy?

Ans-) A shallow copy creates a new object that points to the same memory location as the original object. This means that any changes made to the copied object will also affect the original object. A deep copy, on the other hand, creates a new object with its own memory space. This means that changes made to the copied object will not affect the original object.

4. What is the maximum possible length of an identifier?

Ans-) In Python, the maximum possible length of an identifier is implementation-dependent, which means that it can vary depending on the version of Python and the underlying platform. In practice, identifiers in Python can be very long, often limited only by the available memory.

5. What is generator comprehension?

Ans-) A generator comprehension is a concise way to create a generator in Python. It has a similar syntax to a list comprehension, but instead of creating a list, it creates a generator object.