**ASSIGNMENT 11**

Q1. What is the concept of a metaclass?

Ans: By default, a class’s type is type which is further type of metaclass-type. We can change that by creating a metaclass and then inheriting the newly created metaclass to the defined class. By doing this we can change the behavior of the class according to our needs.

Q2. What is the best way to declare a class’s metaclass?

Ans: The syntax for declaring a class’s metaclass is:

class Meta\_name(type):

pass

Class Sub\_meta(metaclass=Meta\_name):

Pass

In the above code Meta\_name class is metaclass and Sub\_meta is class whose type is Meta\_name metaclass.

Q3. How do class decorators overlap with metaclasses for handling classes?

Ans: Decorators are class names used above any function which we want to call as well, whereas metaclasses are the class types so they both decorators and metaclasses perform similar operations when it comes to handling classes. They both call the class for the derived function or class and provide the same result.

Q4. How do class decorators overlap with metaclasses for handling instances?

Ans: Decorators have less significance in handling class instances as compared to metaclasses. This is because metaclass is a type of inheritance therefore, all changes applied to the class is also applicable to the instances whereas decorators are mainly used to modify the classes. Although it can change the instances of the class as well but it is limited.