1)Procedural programming follows a top-down approach while oop follows a bottom-up approach

Procedural programming makes use of function whereas object oriented programming makes use of classes and objects.

Procedural programming is less secure since there is no concept of data abstraction and inheritance whereas object oriented programming makes use of data abstraction and inheritance.

2)Principles of oops are as follows:

a)Inheritance which is done passing the parent class as argument to a child class so the child class has its own methods as well as inherited methods of the parent class.

b)Abstraction when a method of the class is hiding a method from other classes this can be done by importing ABC,abstactmethod from abc and passing ABC to the class to be abstracted and abstractmethod to the method to be abstracted.

c)Encapsulation is when all the data members and variables are wrapped in one unit.This is done by making use of classes and objects.

d)Polymorphism is when code takes different forms based on input or different methods in a class.

3)The self keyword is used to represent an instance of a class.

4)Method overriding is when you change the methods inside the child class which have been inherited from the parent.It is useful as you can change the function depending on different use cases.

5)Class variables have an assigned value like a string or number whereas an instance of class is made use of to refer to the class and make use of different methods in the class.

6)from abc import ABC,abstractmethod

Pass ABC as argument to the class you want abstraction for and abstractmethod for the method you want to create abstraction for within the same class.

7)The super function gives access to methods of the parent or child class.The super function returns an object that represents the parent class.

8)Multiple inheritance is supported in python as it allows multiple classes to be passed as an argument to a child class,it gets properties and methods from the different classes but having the same name as method in any of the base classes,calling the methods using an object of the derived class when the method has not been overridden causes it to give a compile error.

9) Decorator is when you call one function inside another function.So one function can be used to inherit the properties of another function.

10)descriptive statistics is when different aspects of statistics like bar graph,flow charts,heat maps are used to describe the data or give a summary of the data.

11)Inferential statistics is when use a sample of a larger data set to make an accurate prediction about the larger data set.for instance,in population inference we make use of a sample of a population to make an accurate prediction about the whole population.