

Q.1

Ans:-

Polymorphism is the capability of a method to do different things based on the object that it is acting upon. In other words, polymorphism allow you define one interface and have multiple implementations.

* static polymorphism :- polymorphism that is resolved during compiler time is known as static polymorphism. Method ~~of~~ overloading is an example of compile time polymorphism.

① Method ~~of~~ overloading :- this allows us to have more than one method having the same name, if the parameters of methods are different in numbers, sequence and data types of parameters.

* Dynamic polymorphism :- Dynamic polymorphism is a process in which a call to an overridden method is resolved at runtime, hence it is called runtime polymorphism.

Ex:- In this example we have two classes ABC and XYZ. ABC is a parent class and XYZ is a child class. The child class is overriding the method my method () of parent class. In this example, we have child class object assigned to the parent class reference so in order to determine at runtime.

Tuple in python:- A tuple is a collection which is ordered and unchangeable. In python tuples are written with round brackets.

Exples of tuples:-

Empty tuple

```
my-tuple = ()
```

```
print (my-tuple).
```

Tuple having integers

```
my-tuple = (1, 2, 3)
```

Tuple with mixed data types.

```
my-tuple = (1, "Hello", 3.4)
```

Nested tuple

```
my-tuple = ("mouse", [8, 4, 6], (1, 2, 3)).
```