**7. Constructors and Destructors**

• **Theory:**

1. **Constructor Types (Default, Parameterized):-**

* **Default:-** A constructor which does not have any parameter is called default constructor.

**Syntax:**- class A{

{

A(){

}

}

* **Parameterized:-**A constructor through which we can pass one or more parameters is called parametrized constructor.

**Syntax:**- class A{

A(int x, string y);

{

}

}

**2.Copy Constructor (Emulated in Java):-** Whenever we pass obj refrence to the constructor the is is called copy constructor.

**Syntax:-** class class\_name{

Class\_name(obj ref){

{

}

}

**3.Constructor Overloading:-** Constructor overloading in Java allows a class to have more than one constructor, each with different parameters.

**4.** **Object Life Cycle and Garbage Collection:-**

* **Object Life Cycle :-** In Java, the object life cycle refers to the various stages an object goes through from creation to destruction.
* **Garbage Collection** :- Garbage collection is the process of automatically reclaiming memory by removing objects that are no longer in use.