Assignment Questions – (Constructor)

Question 1-What is a Constructor?

Answer – In Java, a constructor is a block of codes similar to the method. It is called when an instance of the class is created. At the time of calling constructor, memory for the object is allocated in the memory.

It is a special type of method which is used to initialize the object.

Every time an object is created using the new() keyword, at the time one constructor is called.

It calls a default constructor if there is no constructor available in the class. In such case, Java compiler provides a default constructor by default.

There are two types of constructors in java:

No-arg constructor and parameterized constructor.

Question 2- What is Constructor Chaining?

Answer – In constructor chain, a constructor is called from another constructor in the same class this process is known as constructor chaining. It occurs through inheritance. When we create an instance of a derived class, all the constructors of the inherited class(base class) are first invoked ,after that the constructor of the calling class (derived class) is invoked.

We can achieve constructor chaining in two ways:

Within the same class: If the constructors belong to the same class, we use this.

From the base class: If the constructor belongs to different classes (parent and child classes), we use the super keyword to call the constructor from the base class.

Question 3. Can we call a subclass constructor from a superclass constructor?

Answer - A subclass can call a constructor defined by its superclass by use of the following form of super.

Question 4. What happens if you keep a return type for a constructor?

Answer – No, constructor does not return any value.

It gives compiler error.

Question 5. what is No-arg constructor?

Answer – It is similar to methods, a java constructor may or may not have any parameters(arguments).

If a constructor does not accept any parameters, it is known as a no-argument constructor. For example,

```
Private Constructor( ) {
        //body of the constructor
```

}

Question 6. How is a No-argument constructor different from the default Constructor?

Answer – No-Arg Constructor – a constructor that does not accept any arguments.

Default Constructor – a constructor that is automatically created by the java compiler if it is not explicitly defined.

Question 7. When do we need Constructor Overloading?

Answer- Constructor Overloading allow us to initialize the objects of a class in different ways. This allows us to initialize the object with either default values or used given values.

Question 8. What is Default constructor Explain with an Example

Answer - If we do not create any constructor , the java compiler automatically create a no-arg constructor during the execution of the program . This constructor is called default constructor.

```
class Main {

  int a;

  boolean b;
```

```
  public static void main(String[] args) {

    // A default constructor is called
    Main obj = new Main();

    System.out.println("Default Value:");
    System.out.println("a = " + obj.a);
    System.out.println("b = " + obj.b);
  }
}
```

Output:

Default value:

a = 0

b = false

Here, we haven’t created any constructors. Hence, the java compiler automatically creates the default constructor.