1.) How do you design an application with JMS messaging?

**Ans:** JMS is an API which supports the formal communication between the computers on a network. It provides the facility to create, send and read messages. It has a building block, which are below

a.) Connection factories and destination.

b.) Connections

c.) Sessions

d.) Message Producers

e.) Message Consumers

f.) Message Listneres

**2.) How do you handle exception in JMS consumers and how to you recover?**

Using the Message Listners interface , which has a method onMessage, We need to pass the message for that method once if it success then it gives us auto acknowledgement by using message.acknowledge().

Using session.recovery() we can recover that particular session.

**3.) How do you implement LRU or MRU cache?**

Best way to implement LRU is LinkedHashMap, By using the constructor of the LikedHashMap we can change it from first element to most recently used first.

4.) **How would you implement Executor Service?**

It is an interface which is capable of asynchronous execution mechanism which is capable of executing tasks in background.

5.) **Describe singleton design pattern – how would you implement?**

It restricts the instantiation of the class and ensures that only one instance for java virtual machine.

a.) Private constructor to restrict instantiation of the class from other classes

b.) Private static variable of the same class that is only instance of the class

c.) Public static method that returns the instance of the class.

**6.) Describe properties of Java String?**

It is immutable. To make an object immutable attributes of the class should be final. All the attributes of string class is final except hashcode.