**UNIT-I**

**Chapter 1 Characterization of D.S.**

1. Define Distributed System & discuss its characteristics. Give examples for Distributed Systems.
2. List the challenges in distributed systems. Explain in detail any two of them.

**System models**

1. Define Architecture Model. Mention its goal & explain the following with an example.

i) Mobile Code ii) Mobile Agent iii)Proxy Server & Cache

4. Summarize the following design requirements for Distributed Architectures ;

1. Performance Issues ii) Quality of Service

**UNIT-II**

**Chapter 4 : IPC**

1. Explain the characteristics of IPC.
2. With a neat diagram explain sockets.
3. Compare & Contrast between Synchronous & Asynchronous communication in the context of IPC.
4. Analyze the failure model of Request/Reply protocol in client-server Communication using UDP
5. Explain Java API for the following.

* Internet Address
* UDP datagrams
* TCP streams

1. Discuss issues relating to datagram communication.
2. Explain Characteristics and issues related to stream communication.
3. Define marshalling and unmarshalling.
4. Explain CORBA CDR with an example
5. Explain Java object serialization with an example.
6. Define Marshalling. Construct a marshalled form that represents a Organization with instance variable values :{ ‘KLSGIT’,’BELGAUM’, 1979, 590008} by using CORBA-CDR & Java Serialization.
7. Illustrate the method used to refer remote object uniquely.
8. Explain request-reply communication with the neat diagram and specify the operations of the same.
9. Describe message structure with message identifiers.
10. Discuss the failure models of request reply protocol.
11. With a neat diagram explain the role of Proxy & Skeleton in RMI.
12. List and explain RPC exchange protocols.
13. Discuss the drawbacks of UDP over TCP stream to implement the request-reply protocol.
14. Explain HTTP request and reply message format.