

Module - 1

1. OSI Reference Model / Design issues in OSI layers
 2. Network Topologies (Bus, Ring, Mesh, etc.)
 3. Interconnecting Devices (Hub, Router, etc.)
 4. Connection-less vs Connection-oriented Services
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Module - 2

1. Guided Transmission Media (Difference)
 - Co-axial Cable
 - Twisted Pair Cable
 - Fiber Optics Cable
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Module - 3

1. Framing Methods
2. CRC Checksum Error Detection Numerical
3. Sliding Window - Selective Repeat
4. CSMA / CD

Extra

1. Sliding Window - Go Back N
 2. Channel Allocation Problem
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Module - 4

1. IPv4 Header Format
2. Classful & Classless IPv4
3. IPv4 Numerical
4. Dijkstra Algorithm
5. Link State Routing
6. ARP(Address resolution protocol) and RARP

7. Open loop vs closed loop congestion methods or explain
8. Token bucket and leaky bucket algo

Extra

1. IPv6 Header Format
 2. ICMP & IGMP
 3. Distance vector routing
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Module - 5

1. TCP vs UDP
2. Slow Start TCP
3. Berkeley Sockets
4. Three-way Handshake

Extra

1. TCP Timers
 2. TCP Flow Control
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Module - 6

Q: Short Notes:

- DNS
- HTTP
- SMTP
- DHCP, FTP
- Telnet