Unit I

short answer

1. What is an Internet?
2. What is a Protocol & and standards?
3. Draw layer to layer communication diagram of OSI.
4. What are the functions of physical layer?
5. List the functions of data link layer.
6. What is CRC?
7. Write a short note on guided m
7. List different data link layer protocols?
8. List different transmission media at the physical layer.
9. What is guided media?
10. What is Unguided media?

long Answer

1. Draw and Explain OSI model?
2. Explain TCP/IP model with neat diagram?
3. Write a note on Internet history & administration
4. Differentiate between OSI and TCP/IP model?
5. Write a note on Guided media?
6. Explain in detail Unguided media?
7. Differentiate between guided and unguided media?
8. Explain different design issues of data link layer?
9. Write a note on stop and wait ARQ.
10. Explain in detail sliding window protocols.
11. Compare between Go-back-N and Selective-repeat protocol.
12. Given data = 10111011 and key = 1001 calculate CRC?
13. Explain CRC with example.

Unit-2

Short

1. What is Aloha?
2. List different collision free protocols used at DLL?
3. What is ethernet?
4. What is bridge?
5. What is repeater?
6. What is hub?
7. Write a note on router?
8. Explain switch in CN?
9. What is DLL switching. What is CSMA?
10. What is gateway?

Long

1. Explain Aloha protocol in detail.
2. Compare and contrast pure aloha & slotted a
3. Write a note on CSMA.
4. Explain in detail CSMA/CD.
5. Explain Data link layer switching.
6. Differentiate between Repeater and Hub.
7. Explain router with its types.
8. Write a note on transparent bridge (Learning
9. Explain Spanning tree bridge
10. Differentiate between router and switches.
11. Write a note on standard ethernet.
12. Explain loop problem in bridges.

Unit 3 - Short

Sho.
1. List different functions of network layer.
2. What is store and forward packet switching.
3. List different network layer design issues.
4. What is optimality principle.
5. What is flooding.
6. Explain count to infinity problem.
7. What is admission control policy?
8. What is congestion?
9. What is open loop congestion control.
10. What is closed loop congestion control.

Long

1. Explain in detail network layer design issues.
2. Differentiate between connectionless and connection oriented networks.
3. Explain in detail shortest path routing with example
4. Explain distance vector routing with example.
5. Explain hierarchical routing algorithm.
6. Write a note on leaky bucket algorithm.
7. Explain token bucket algorithm.
8. List and explain diff. services provided to upper layer
9. Write a note on flooding.
10. Explain implementation of connectionless and connection oriented service at network layer.

Unit-4

Short-

1. What is net interconnecting?
2. What is tunneling.
3. What is Routing.
4. What is fragmentation.
5. What is classful addressing & classless addressing.
6. What is CIDR.
7. List different services provided to upper layers.
8. What is IP address?
9. What is Redirection?

Long

1. Explain IPv4 packet format.
2. Explain Tunneling in detail.
3. Write a note on fragmentation in IPv4.
4. Explain in detail IPv4 ~~add~~ classful addressing
5. Write a note on IPv6.
6. Explain ICMP messages in detail.
7. Write a note on ARP protocol.
8. Write a note on DHCP protocol.
   (Explain state transition dia. of DHCP)
9. List and explain different services provided by transport layer.
10. Explain Connection establishment and connection release at transport layer.

Unit 5

short

1. What is RPC?
2. What is a segment?
3. Define Congestion?
4. What is window?
5. List diff services provided by application layer.
6. Define client/server paradigm.
7. What is HTTP?
8. What is Domain?
9. What is Zone?
10. Define PQDN and FQDN.
11. What is URG flag?
12. What is ~~PSH~~? PSH?
13. What is port forwarding?
14. What is UA?
15. What is MTA & MAA?

long

1. Write a note on Real Time Transport protocols.
2. Draw and Explain in detail TCP Header?
3. Explain in detail three-way handshake in TCP.
4. Explain how TCP applies congestion control mechanisms.
5. Explain HTTP request and Response message in detail.
6. Explain FTP working in detail.
7. Explain DNS in Internet?
8. Explain Resolution process in DNS?
9. Write a note on SSH protocol.
10. Discuss Electronic mail transfer protocol.
11. Explain MIME Header.