QUESTION BANK

CS6551 – Computer Networks

UNIT 1

PART A

1. Define Networks.

2. Define Internetworking and Intranetworking.

3. What is router or gateway?

4. Define routing.

5. What are Unicast, Multicast, and Broadcast?

6. What is Multiplexing and Demultiplexing?

7. What is Synchronous Time Division Multiplexing?

8. What is Frequency Division Multiplexing?

9. What is Statistical Multiplexing?

10. What are SAN, LAN, WAN and MAN?

11. List the three general classes of failure.

12. What are RRP and HHP?

13. Define Bandwidth and Latency.

14. What is transfer time?

15. Define frames.

16. What is Forward Error Detection?

17. What is Shanon's Theorem?

18. What is Frequency Hopping?

19. What is Spread Spectrum?

20. What are Manchester encoding, Differential Manchester?

PART B

1. Explain about Network Architecture with neat sketch on it.

2. Explain about OSI Architecture with neat sketch on it.

3. Explain about Internet Architecture with neat sketch on it.

4. Explain about Network software.

5. Explain about Performance of computer network.

6. Explain about Framing and its types.

7. Explain about Error Detection.

8. Explain about Reliable transmission or Flow Control.

9. Explain about requirement of building a network.

10. Problems on Bandwidth and Latency.

UNIT 2

PART A

1. What is repeater?

2. What is Media Access Control?

3. What is Exponential backoff?

4. What is Orthogonal Frequency Division Multiplexing?

5. Define Signal to Noise Ratio.

6. What is Access Point?

7. What are Scanning and its four steps?

8. What is Bluetooth?

9. What is Piconet?

10. What is Gateway?

11. What are Switching and Bridging?

12. What is Virtual Circuit Switching?

13. Difference between Connectionless and Connection Oriented duplex.

14. What is hop by hop flow control?

15. What is Virtual Private Network?

16. Draw the sketch of IPv4 packet header.

17. What are TTL and MTU?

18. What is payload?

19. What are Class A , Class B and Class C?

20. What is Tunneling?

PART B

1. Explain about Ethernet (802.3).

2. Explain about Wi-Fi (802.11).

3. Explain about Bluetooth with its architecture.

4. Explain about Switching and Bridging.

5. Explain about Internet Protocol.

6. Explain about ARP.

7. Explain about CIDR.

8. Explain about DHCP.

9. Explain about ICMP.

10. Problems about Ethernet LAN.

UNIT 3

PART A

1. Difference between Forwarding and Routing.

2. What is Interior Gateway Protocol (IGP)?

3. List the two different classes of routing protocol.

4. What is distance vector routing?

5. What is Convergence?

6. What is Count to infinity problem?

7. What is Split horizon?

8. What is Split horizon with poison reverse?

9. What is RIP?

10. What is Link State Routing?

11. What is Reliable Flooding?

12. Draw the sketch of OSPF header format.

13. What is Load Balancing?

14. How can we compute delay for the packet?

15. What is Line Rate?

16. Difference between IPv4 and IPv6.

17. Draw the sketch of IPv6 Packet Header.

18. What is Network Address Translation?

19. What is Multicast?

20. What is Switching?

PART B

1. Explain about Switching and Forwarding.

2. Explain about RIP.

3. Explain about OSPF.

4. Explain about BGP.

5. Explain about Routing areas.

6. Explain about IPv6.

7. Explain about Multicast.

8. Explain about DVMRP.

9. Explain about PIM.

10. Explain about Multicast address.

UNIT 4

PART A

1. Define UDP.

2. Define TCP.

3. Difference between UDP and TCP.

4. Draw the sketch of TCP header format.

5. What are the three ways of handshake?

6. Draw the TCP State transmission control.

7. What is nagles algorithm?

8. What is RTT?

9. What is Estimated RTT?

10. What is Congestion Control?

11. What is RED?

12. What is Congestion Window?

13. What is AIMD?

14. What is Slow Start?

15. What is intergrated service?

16. What is Quality of service approaches?

17. What is admission control?

18. What is Differentiated service?

19. What is Expedicted forwarding?

20 What is assured forwarding?

PART B

1. Explain about the operation of TCP with neat sketch on it.

2. Explain about the concept of sliding window protocol.

3. Explain about UDP with neat sketch on it.

4. (i). Difference between UDP and TCP.

(ii). Discuss flow control with an example.

5. Explain about the three way handshake protocol for connection establishment in TCP.

6. Explain about the TCP congestion control.

7. Explain about the RED algorithm.

8. Explain about the concept of congestion avoidance in TCP?

9. Explain about the RSVP protocol with neat sketch.

10. Explain about the differentiated services.

UNIT 5

PART A

1. What is SMTP?

2. What is HTTP?

3. What is DNS?

4. What is SNMP?

5. What is MIME?

6. What is IMAP?

7. What is IMAP state transition diagram?

8. What is URL?

9. List the TCP connection.

10. What is Management Information Box?

11. What is Web Service?

12. What is SOAP?

13. What is WSDL?

14. What is SIP?

15. What is Routing overlay?

16. What is hierarchy of name server?

17. What is name resolution?

18. What is GET and SET in SNMP?

19. What is B 2 B?

20 What is Message Exchange Pattern?

PART B

1. Explain about the Traditional applications.

2. Explain about the WSDL in web services.

3. Explain about the SOAP.

4. Explain about the SMTP.

5. Explain about the DNS.

6. Explain about the SNMP.

7. Explain about the MIME.

8. Explain about the POP3.

9. Explain about the IMAP.

10. Explain about the HTTP.