Question Bank for Unit 3 ACN - Routing and Next Generation IP

1) Compare forwarding and routing. Give Examples.

2) Explain Distance Vector Routing with an example graph.

3) Explain Link state routing with an example graph.

4) Explain Reliable flooding process used in link state routing?

5) Consider an example topology and apply Dijkstra’s algorithm to calculate the shortest path from one source to all destinations.

6) Compare distance vector routing with link state routing.

7) Discuss the classification of routing algorithms in the Internet.

8) What is interdomain Routing and explain.

9) Write a note on Routing Areas. (Or write a note on Hierarchical OSPF.

10) Discuss BGP in detail.

11) Differentiate multicasting with multiple unicasting,

12) Discuss some applications of multicasting.

13) Change the multicast IP address 230.43.12.10 to an Ethernet multicast physical address.

14) Explain the two approaches to multicasting.

15) Discuss the Source based tree approach to multicasting with necessary diagrams.

16) Discuss the Group shared tree approach to multicasting with necessary diagrams.

17) Discuss the DVMRP Protocol in detail.

18) Discuss MOSPF in detail.

19) Discuss RPF, RPB and RPM used in DVMRP with necessary diagrams.

20) Write a note on IGMP.

21) What are the advantages of IPv6 over IPv4?

22) Write the packet format of IPv6 with the explanation of each field.

23) Compare the headers of IPv4 and IPv6.

24) Write a note on IPv6 addresses.

25) Explain EUI-64 method with an example.

26) Given the Ethernet address as D5-A5-23-19-7A-E216 . Find the Interface ID in IPv6.

27) An organization is assigned the block 2000:1408:2404/48. Physical address of m/c is D5-A5-23-12-F5-A9-7A , Find the IP address of 5th subnet for this m/c.

28) Explain how to do the transition from IPv4 to IPv6 ?

29) Explain tunneling strategy for IPv6 over IPv4.

30) Explain Header translation procedure in detail.