**UNIT – IV Network Layer**

1. Differentiate between IPV4 and IPV6
2. Explain IPV4 header and IPv6 Header
3. How Distance Vector Routing Algorithm works
4. Draw packet format of RIP
5. Draw packet format of OSPF
6. State classes in IP address range and no of devices that can be connected
7. Compare Swichting Techniques
8. A company is granted the site address 201.70.64.0 (class C). The company

needs six subnets. Design the subnets.

1. A company is granted the site address 181.56.0.0 (class B). The company needs 1000 subnets. Design the subnets.
2. What is the network address if one of the addresses is 167.199.170.82/27?
3. An organization is granted the block 130.34.12.64/26. The organization needs to have four subnets. What are the subnet addresses and the range of addresses for each subnet?
4. A company needs 600 addresses. Which of the following set of class C blocks can be used to form a supernet for this company
5. A supernet has a first address of 205.16.32.0 and a supernet mask of 255.255.248.0. How many blocks are in this supernet and what is the range of addresses?
6. A small organization is given a block with the beginning address and the prefix length 205.16.37.24/29 (in slash notation). What is the range of the block
7. Write a short note on AODV and DSR