ASSIGNMENT -4 (NETWORK LAYER)

1. What is a Network Layer ? Explain the function of Network Layer .
2. Briefly explain IPV4 Datagram format with proper diagram .
3. Briefly explain IPV4 Datagram format with proper diagram .
4. Why do we need IPV4 despite having IPV4 protocol ? Write about advantages of IPV6 over IPV4.
5. Explain about Routing Algorithms given below :
   a)Distance Vector Routing
   b)Link State Routing
6. What are the three Internet Control Protocols? Explain each in detail.
7. Explain about the notation of IPV4 and IPV6 address format.
8. Define Subnetting, Classless Address and Classful Address.
9. Suppose an organization is given the block 17.12.40.0/26, which contains 64 addresses. The organization has three offices and needs to divide the addresses into three sub blocks of 32, 16, and 8 addresses.
10. Write short note on:
    a)Virtual Circuit
    b) Datagram Circuit
    c)OSPF and BGP
    d)Unicast, Multicast, Anycast and Broadcast
    e)NAT[1]

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