23EC2210R: NETWORK PROTOCOLS & SECURITY

1. Show the operation of dual stack technique and explain its importance in transition from IPv4 to IPv6.
2. Using fixed length subnetting divides the given network 196.220.84.32 into two parts. Give the first host ID, Last host ID, Subnet mask, and the number of hosts connected.
3. Explain the functions of the following devices: a) Hub b) Bridge c) Router d) Gateway.
4. Compare and contrast the characteristics of Class A, B, and C address ranges in terms of their default subnet masks, address space, and the number of available host addresses.
5. Paraphrase carrier sense multiple access protocol and differentiate CSMA/CD and CSMA/CA?
6. Inspect the significance of each field within the IPV6 header and compare it with IPV4 header.
7. Identify the need for Classless addressing in network layer in comparison with classful addressing
8. Employing the 3 levels of hierarchy in IP Addressing?