ADVANCED COMPUTER NETWORKS

**ASSIGNMENT-1**

1. Compare and contrast distance vector routing with link state routing.
2. Why do OSPF messages propagate faster than RIP messages?
3. Explain RIP, OSPF and RIP message formats.
4. Write short notes on :

* MOSPF
* DVMRP
* PIM
* CBT

1. Does RPF actually create a shortest path tree? Explain.

**ASSIGNMENT-2**

1. Explain the header formats of TCP and UDP.
2. Explain all the phases of congestion policy used in TCP.
3. Explain connection establishment, data transfer and connection termination phases of TCP.
4. Explain the solutions to Silly Window Syndrome in TCP.
5. Differentiate between TCP Tahoe and Reno.

**ASSIGNMENT-3**

1. Explain the SONET layers.
2. Explain the advantages and disadvantages of optical networking.
3. Explain IntServ model for providing quality of service to different applications.
4. Explain DIFFSERV model for providing quality of service to different applications.

**ASSIGNMENT-4**

1. Explain IPV6 header.
2. Explain the two FTP connections.
3. Write short notes on

* SMTP
* SNMP
* Cloud computing architecture
* Big data
* VoIP