**Advanced Computer Network (ETIT-401)**

**(Assignment-1)**

1. List and explain Transport layer protocol of TCP/IP protocol suit in brief.
2. Write and explain commands to configure router.
3. Explain classful IP addressing scheme.
4. Explain functionality of ARP and RARP.
5. Explain standard network management protocol.
6. Compare Intra domain and Inter Domain routings.
7. List and explain Transport layer protocol of TCP/IP protocol suit in brief.
8. Explain sub netting? For a network address 192.168.10.0 and subnet

mask 255.255.255.224 then calculate:

i. No of subnet and no of host

ii. Valid subnets.

1. Write short note on IGRT(Interior Gateway Routing Protocol)
2. Compare static and dynamic routing.

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**(Assignment-2)**

1. Explain functionality of ARP and RARP.
2. Explain BGP (Border Gateway protocol) routing protocol.
3. What is count to infinity (routing loop) problem? Discuss possible solutions to reduce count to infinity problem.
4. Explain classful IP addressing scheme.
5. Write short note on Open shortest path first Protocol.
6. What do you understand by ARP and RARP. Explain ARP header with diagram.
7. Explain various types of IGMP messages.
8. Briefly explain Features of TCP and UDP. Also draw TCP segment format
9. Differentiate between IPv4 and IPv6
10. Assume that you have been assigned the 132.45.0.0/16 network block. You need to establish eight subnets.

(i) How many binary digits are required to define eight subnets.

(ii) Specify the extended network prefix that allows the creation of 8 subnets.

(iii) Express the subnets in binary format and dotted-decimal notation.

(iv)List the range of host addresses that can be assigned to subnet #3.

(v) What is the broadcast address for subnet #3?