

SEM-V (CBGS) COMP

23/5/16

QP Code : 31134

Computer Networks.

(3 Hours)

Total marks : 80

Note:

- Question No. 1 is compulsory.
- Attempt any Three questions out of remaining questions.
- Make suitable assumptions whenever necessary.

Q 1:

[4 X 5]

- Compare connection oriented and connectionless services.
- Explain in short Subnetting.
- Explain in short different framing Methods.
- Explain in short TCP/IP Model.
- What is the use of SSH ?

Q 2:

- Explain any four functions of Data Link layer with example. [10]
- What is IPv4 protocol? Explain the IPv4 Header format with diagram. [10]

Q 3:

- Explain Classless Inter Domain Routing (CIDR). [10]
- Discuss the quality of service parameters in computer network. [10]

Q 4:

- What are the steps involved in link state routing. Explain the contents and requirements of link state packets. [10]
- Compare Open Loop congestion control, Closed Loop congestion control. [10]

Q 5:

- Write a Program for client-server application using Socket Programming(TCP). [10]
- An ISP is granted a block of addresses starting with 150.80.0.0/16. The ISP wants to distribute these blocks to 2600 customers as follows.
 - The first group has 200 medium-size businesses; each needs 128
 - The second group has 400 small businesses; each needs 16
 - The third group has 2000 households; each needs 4 addresses. Design the subblocks and give the slash notation for each subblock. Find out how many addresses are still available after these allocations. [10]

Q 6: Write short notes on the following.

[5 X 4]

- Virtual LAN
- FDDI
- BGP
- SNMP