

B.Tech. SEM -VII Electronics 2014 Course (CBCS) : SUMMER - 2019

SUBJECT: COMPUTER NETWORKS

Day : Thursday
Date : 09/05/2019

S-2019-2819

Time: 02.30 PM TO 05.30 PM
Max. Marks: 60

N. B. :

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labeled diagram **WHEREVER** necessary.
- 4) Assume suitable data, if necessary.

- Q. 1**
- a) Explain components of LAN in brief. (05)
 - b) Explain the following N/W topologies with advantages and disadvantages. (05)
 - i) Star
 - ii) Ring
 - iii) Mesh

OR

- a) Draw ISO-OSI reference model and give functionality of each layer. (06)
- b) Write a short note on WAN (04)

- Q. 2**
- a) Explain following switching techniques: (06)
 - i) Circuit switching
 - ii) Packet switching
 - b) Write a short note on EIA 232 interface standards. (04)

OR

- a) Explain following in brief: (05)
 - i) Hub
 - ii) Switches
 - iii) Router
 - iv) Bridges
- b) Explain guided and unguided media with suitable examples. (05)

- Q. 3**
- a) Explain functions of Data Link Layer. (05)
 - b) Explain frame structure of HDLC. (05)

OR

- a) Write a short note on IEEE 802 standards for LAN. (05)
- b) Explain sliding window protocol, in DLL. (05)

- Q. 4**
- a) Explain RSVP in detail. (05)
 - b) What is network congestion? What are reasons? How one can avoid it? (05)

OR

- a) Explain distance vector routing. List various congestion control techniques. (05)
- b) Explain Token Bucket algorithm. (05)

- Q. 5**
- a) Explain ARP and RARP protocol operations. (05)
 - b) Explain IPV4 address format. (05)

OR

- a) Explain ICMP protocol. (05)
- b) Write a note on IPV6. (05)

- Q. 6**
- a) Write a note on RSA algorithm. (05)
 - b) Describe model of operation of IPsec (05)

OR

- a) Explain DES and AES symmetric key algorithms. (07)
- b) Write a short note on firewall. (03)

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