

**Seventh Semester B.E. Degree Examination, June/July 2015**  
**Computer Communication Networks**

Time: 3 hrs.

Max. Marks:100

**Note: Answer FIVE full questions, selecting  
at least TWO questions from each part.**

**PART - A**

- 1 a. Mention the layers of TCP/IP protocol suite and give brief explanation of protocols used in the suite. (10 Marks)
- b. Explain usage of existing loops, adaptive technology and discrete multitone technique in ADSL. (10 Marks)
- 2 a. Give design of selective repeat ARQ, and explain its working at sender site and receiver site. (10 Marks)
- b. Give frame format of HDLC protocol and explain all the fields in the frame. (10 Marks)
- 3 a. Explain working of CSMA/CA with a flow diagram. (10 Marks)
- b. A pure aloha network transmits 200 bit frames on a shared channel of 200 kbps. What is the through put if system produces 1000 frames per second? (04 Marks)
- c. Explain the idea of CDMA technique. (06 Marks)
- 4 a. Explain frame format of Ethernet MAC frame. (08 Marks)
- b. Describe topology, implementation and encoding in fast ethernet. (08 Marks)
- c. Give summary of standard ethernet implementations. (04 Marks)

**PART - B**

- 5 a. Describe the three steps involved in finding spanning tree for the following system Fig. Q5 (a). (10 Marks)

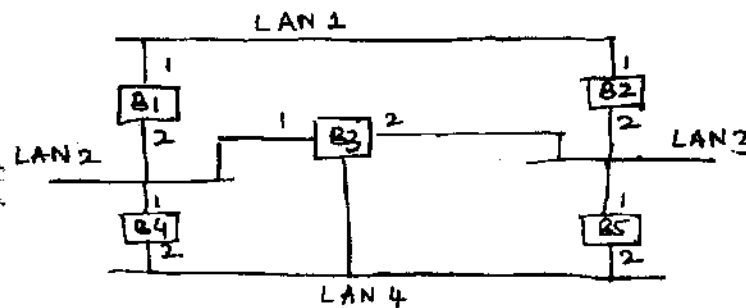


Fig. Q5 (a)

- b. Discuss the two most common architectures in backbone networks. (10 Marks)
- 6 a. Explain classful addressing classes in IPV4. (10 Marks)
- b. Explain the different fields of IPV4 datagram. (10 Marks)
- a. Explain initialization, sharing and updating in distance vector routing protocol. (10 Marks)
- b. Discuss multicast distance vector routing and its implementation in DVMRP. (10 Marks)
- 8 a. Explain UDP datagram format. (04 Marks)
- b. Describe three way hand shaking connection establishment and termination in TCP. (08 Marks)
- c. Mention atleast five generic and country domains and explain recursive and iterative resolution. (08 Marks)

\*\*\*\*\*