

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)**

**CLASS: BE
BRANCH: ECE**

**SEMESTER: VI/ADD
SESSION : SP/2019**

SUBJECT : EC6205 COMPUTER NETWORKING

TIME: 1.5 HOURS

FULL MARKS: 25

INSTRUCTIONS:

1. The total marks of the questions are 30.
2. Candidates may attempt for all 30 marks.
3. In those cases where the marks obtained exceed 25 marks, the excess will be ignored.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. The missing data, if any, may be assumed suitably.

- Q1 (a) In IEEE 802 standards, what are the services provided by the LLC sublayer? [2]
 (b) Explain the three persistence protocols that can be used with CSMA Ethernet. When the performance of CSMA would be same as CSMA/CD? [3]
- Q2 (a) What are the three parts of Ethernet technology? Compare 100 BASE-T4 with 10G BASE-SR Ethernet. [2]
 (b) How priority scheme is implemented in IEEE 802.5 Token Ring standard? How does it differ from FDDI? [3]
- Q3 (a) What are the drawbacks of Layer-2 switch? How are those overcome with Layer-3 switch? [2]
 (b) An internet configuration is shown in Fig. 1, where costs ('C') are marked on the bridges. Construct the spanning tree of the configuration with B1 as the root bridge. [3]

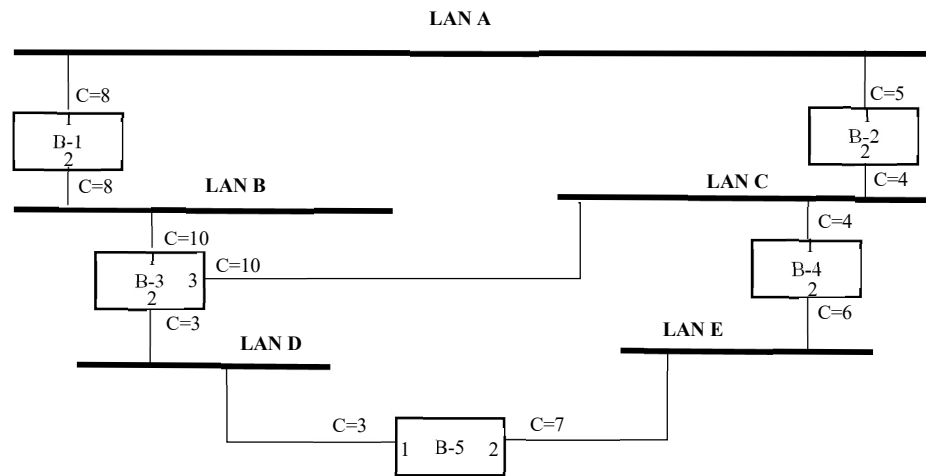


Fig. 1

- Q4 (a) What are association related services in IEEE 802.11 architecture? [2]
 (b) What is superframe in MAC? Explain how it is used in PCF for medium access control logic in wireless LAN. [3]
- Q5 (a) What are the requirements for an internetworking facility? [2]
 (b) Dissect an original datagram of 664 octets into 3 segments of 256, 240 and 168 octets, indicating the data length, offset and status of More flag for each segment. [3]

- Q6 (a) Find the subnet number and host number for an IP address 192.228.22.58 and subnet mask 255.255.255.225. [2]
- (b) What is ICMP message and where it is encapsulated? Explain the following messages used by ICMP : (i) Source quench (ii) Timestamp request and reply. [3]

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