B.TECH SEM – VI (2007 COURSE) (INF. TECH.) : SUMMER - 2018

SUBJECT: HIGH PERFORMANCE COMPUTER NETWORK

Day: **Wednesday** Time: **02.30 PM TO 05.30 PM**
Date: **06/06/2018** **S-2018-2726** Max. Marks: 80

N.B.:

1) **Q. No. 1** and **Q. no. 5** are **COMPULSORY.** Out of remaining attempt **ANY TWO** questions from each section
2) Figures to the **RIGHT** indicate **FULL** marks.
3) Answers to both the sections should be written in **SEPARATE** answer book.
4) Use of non programmable **calculator** is allowed.
5) Assume suitable data if **necessary**.
6) Draw neat diagrams wherever necessary.

SECTION-I

Q.1 **a)** Describe types of Networks. **(05)**

b) Discuss Data Link Layer Design issues. **(05)**

c) What is ALOHA? **(04)**

Q.2 **a)** Draw and Explain TCP/IP Reference Model. **(07)**

b) Describe and Compare Switching, Buffering and Multicasting. **(06)**

Q.3 **a)** Explain Elementary Data Link Protocol in detail. **(07)**

b) Consider the Delay of Pure ALOHA versus Slotted ALOHA. **(06)**

Q.4 **a)** Explain Static and Dynamic Channel Allocation in detail. **(07)**

b) What is a Protocol? Explain Multiple Access Protocol in detail. **(06)**

SECTION-II

Q.5 **a)** Discuss Digital Cellular Radio. **(05)**

b) Describe High Speed Switching. **(05)**

c) What are ISDN Services? **(04)**

Q.6 **a)** How the Frame Relay Congestion Control takes place? Explain the same with neat diagram. **(07)**

b) Explain and draw Architecture of IEEE 802.3. **(06)**

Q.7 **a)** Define and Explain B-ISDN Functional Architecture. **(07)**

b) Discuss AAL Layers with Examples. **(06)**

Q.8 **a)** With the help of neat Diagram, Explain Architecture of ATM Protocol. **(07)**

b) Explain Frame Relay Protocol and Services. **(06)**

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