SV - 194

Seat No.	

Total No. of Pages : 2

S.E. (Computer Science & Engineering) (Part - II) (Semester - III) (Revised) Examination, May - 2019

Data Communications

Sub. Code : 63527

Day and Date : Monday, 20 - 05 - 2019 **Total Marks : 50**

Time : 09.30 a.m. to 11.30 a.m.

Instructions :
1) Solve any TWO questions from each Section
2) Figures to the right indicate full marks.
3) Assume suitable data whenever necessary.

SECTION - I

Q1) a) Define data communications & explain the effectiveness of a data communications system depends on which four fundamental characteristics. [6]

b) With neat diagram for data link layer discuss about any four responsibilities of data link layer in OSI model. [7]

Q2) a) Explain the Composite Signals with proper diagram. [5]

b) Explain about Self-synchronization. Draw a neat diagram for Effect of lack of synchronization. In a digital transmission, the receiver clock is 0.1 percent faster than the sender clock. How many extra bits per second does the receiver receive if the data rate is 1 kbps? [7]

Q3) a) Explain Coaxial cable with neat diagram. Mention the applications of Coaxial cable. [6]

b) Explain in brief about any TWO from following : [6]

i) NIC Cards

ii) Bridges

iii) Routers

P.T.O.

SECTION - II

Q4) a) Describe CRC (Cyclic Redundancy Check) and solve $G(x) = x^4 + x + 1$ polynomial using CRC to compute checksum. [7]

b) List and Explain HDLC frames with frame format. [6]

Q5) a) Describe static and dynamic channel allocation in detail. [6]

b) Explain Collision-Free Protocols in detail. [6]

Q6) a) Compare IEEE 802.3, IEEE 802.4 and IEEE 802.5 standards. [6]

b) Explain 802.6 standard (DQDB) and 802.2 logical link control. [6]

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