Seat No.	

SE - 194

Total No. of Pages : 2

S.E. (Computer Science & Engineering) (Part - II) (Semester - III) (Revised) Examination, November - 2018

DATA COMMUNICATIONS

Sub. Code : 63527

Day and Date : Thursday, 29 - 11 - 2018 **Total Marks : 50**

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

Instructions :
1) **Solve any two questions from each section.**
2) **Figures to the right indicate full marks.**

SECTION - I

Q1) a) Define topology & explain star topology with neat diagram. [6]

b) With neat diagram for transport layer discuss about any four responsibilities of transport layer in OSI model. [6]

Q2) a) Define the terms Bandwidth, Throughput & Latency w.r.to measure network performance.

What are the propagation time & transmission time for a 2.5-kbyte message (an e-mail) if the bandwidth of the network is 1 Gbps? Assume that the distance between the sender & the receiver is 12,000km & that light travels at 2.4×10^8 m/s. [6]

b) Explain about NRZ (Non-Return-to-Zero) & Polar RZ line coding scheme. Draw diagram for 010011 using NRZ & Polar RZ. [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) Bridges

ii) Switches

iii) Routers

P.T.O.

SECTION - II

Q4) a) With the help of proper example explain the encoder and decoder in Cyclic Redundancy Check (CRC). [5]

b) With neat diagram and algorithm explain Stop-and-Wait Protocol. [7]

Q5) a) Explain any TWO of the following with neat diagram. [8]

i) 1-persistent CSMA

ii) Nonpersistent CSMA

iii) p-persistent CSMA

b) With diagram explain about Token Passing related to Collision-Free Protocols. [5]

Q6) a) With neat structure of 802.3 MAC frame format write about each field in the frame. [9]

b) In short explain 10Base2: Thin Ethernet. [3]

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