

GANPAT UNIVERSITY
B. TECH SEM- V (ELECTRONICS AND COMMUNICATION ENGINEERING)
REGULAR EXAMINATION- NOV-DEC 2016
2EC506: COMPUTER NETWORKS

TIME: 3 HRS

TOTAL MARKS: 60

Instructions: (1) This Question paper has two sections. Attempt each section in separate answer book.
(2) Figures on right indicate marks.
(3) Be precise and to the point in answering the descriptive questions.

SECTION: I

Q.1 (A) Draw the OSI model and list the functions of each layer. (10)

OR

Q.1 (A) Explain the byte stuffing and bit stuffing for generation of frame. (5)

(B) Calculate the CRC code for data: **110101011001** and generator polynomial is 100110. (5)

Q.2 (A) Draw the TCP/IP Model and explain the Transport layer with its protocol. (5)

(B) Define 1-persistent, p-persistent and explain the Pure Aloha and slotted Aloha Protocol. (5)

OR

Q.2 (A) List the transmission media used in computer network and explain any one in detail. (5)

(B) Explain the collision free protocols. (5)

Q.3 (A) What is piggybacking? Explain the Go Back N and Selective Repeat Protocol (5)

(B) Draw and explain the frame format for Ethernet protocol (5)

SECTION: II

- Q.4 (A) Explain the shortest path routing algorithm (5)
(B) Explain the various types of TCP Timers. (5)

OR

- Q.4 (A) Explain the link state routing algorithm. (5)
(B) Explain the client –server communication using state transition diagram in TCP. (5)

- Q.5 (A) Write short note on Domain Name System (DNS) (5)
(B) Define cipher text and plaintext. Also explain the traditional ciphering using suitable example. (5)

OR

- Q.5 (A) Draw the IP header format and explain the each field in detail. (5)
(B) What is subnetting and supernetting? Determine the initial address and last address for IP Address 100.150.180.240/13. (5)

- Q.6 (A) Explain the working principle of ARP and DHCP protocol. (5)
(B) Differentiate the the connection-oriented and connection-less services. (5)

-----END OF PAPER-----

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