CBS Examination, Dec 2018	
B.Tech IV SEMESTER	
Computer Networks (CE-204)	
Time: 3 Hours	**Max. Marks:60**
Instructions:	*1. It is compulsory to answer all the questions (2 marks each) of Part -A in short.* *2. Answer any four questions from Part -B in detail.* *3. Different sub-parts of a question are to be attempted adjacent to each other.*

PART -A

Q1 (a) List two characteristics of a broadband network. (2)

(b) What is HTTP? (2)

(c) Mention the advantages of wireless LAN. (2)

(d) What is the difference between network layer delivery and transport layer delivery? (2)

(e) Name some parameters for determining the quality of service at transport layer? (2)

(f) Discuss basic functions of data link layer in brief. (2)

(g) What is the effect of packet size on transmission time? (2)

(h) What is dotted decimal notation? (2)

(i) What is the difference between a port address, a logical address and a physical address? (2)

(j) Differentiate between a point-to-point direct link and a multipoint guided configuration. (2)

PART -B

Q2 (a) What is a LAN? Can a LAN has routers? What is the difference between a packet and a frame. (5)

(b) Create a diagram of the NRZ, NRZI and Manchester encodings for the bit pattern 11010011. (5)

Q3 (a) Describe sliding window flow control. (5)

(b) Explain CRC coding mechanism considering the following message and generator polynomial. (5)
M=110010101100101010
G=1010
Show the working of CRC on this data.

Q4 Explain the advantages of IPv6 over IPv4.A large number of consecutive IP addresses are available starting at 198.16.0.0. Suppose that four organisations A , B, C and D request 4000, 2000, 4000 and 8000 addresses, respectively in that order. For each of these, give the (i) first IP address assigned, (ii) last IP address assigned, and (iii) mask in the W.X.Y.Z / S notation. (10)

Q5 (a) Compare the TCP header and UDP header. List the field in the TCP header that is missing from UDP header. Give the reason for their absence. (5)

(b) What is Address Resolution Protocol? How is mapping performed between IP (5)

address into a MAC address?

Q6 (a) What is the difference between open-loop congestion control and closed-loop congestion control? (5)

(b) Explain Distance Vector Routing Protocol? What is its major drawback? (5)

Q7 Differentiate between the following: (10)

(a) Pure ALOHA and Slotted ALOHA

(b) Packet Switched networks and circuit switched networks

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