Sixth Semester B.C.A. Degree Examinations
October / November 2019
(New Syllabus - 2016-17)

(BCF 410) : COMPUTER NETWORKS

Time : 3 Hours   Max. Marks :80

PART - I

I.   Answer ALL the following.   **1x5=5**

    1.   Define Computer Network ?

    2.   Expand LAN.

    3.   Name two service Primitives of the transport layer.

    4.   What is Congestion ?

    5.   Define Protocol.

PART - II

II.   Answer any <u>FIVE</u> of the following.   **5x15=75**

    6.   a)   Describe the uses of Computer Network.

        b)   Explain the broadcast network and point-to-point Network.

        c)   Explain connection - oriented service and connectionless service. **(5+5+5)**

    7.   a)   With neat diagram explain OSI / ISO reference model.

        b)   Compare TCP / IP reference model with OSI reference model.

        c)   What are the critics of OSI / ISO reference model ? Explain.   **(5+5+5)**

    8.   a)   Explain ATM reference model with neat diagram.

        b)   Explain the design issues of the network layer.

        c)   State optimality principle. Illustrate with an example.   **(5+5+5)**

    9.   a)   Explain the shortest path routing with an example.

        b)   What is traffic shaping ? Explain the Leaky bucket algorithm.

        c)   With a neat diagram, explain the internet protocol header (IP) format. **(5+5+5)**

10. a) Describe the services provided by the transport layer to its upper layer.

    b) Explain the elements of transport protocol.

    c) How two army problem can illustrate the connection release issue ? Explain. **(5+5+5)**

11. a) Explain with an example service primitive in transport layer.

    b) With a neat sketch explain TCP segment header format.

    c) Compare TCP and UDP. **(5+5+5)**

12. a) Describe the architecture of e-mail with neat diagram.

    b) Explain architecture of www.

    c) Write a note on E-mail. **(5+5+5)**

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