[6055]-202

S.Y.B.Sc. (Computer Science)
CS-242 : COMPUTER NETWORKS - I
(2019 Pattern) (Semester - IV) (24122)

Time : 2 Hours]   *[Max. Marks : 35*
Instructions to the candidates:
   1)   All questions are compulsory.
   2)   Neat diagram must be drawn if necessary.

Q1) Attempt any EIGHT of the following (out of TEN).   **[8×1=8]**

   a)   Define Bandwidth.

   b)   What is throughput?

   c)   What is Jitter?

   d)   List the control access protocols.

   e)   Define packetizing.

   f)   Write IPv6 address space.

   g)   List UDP services.

   h)   Write the list of states for TcP.

   i)   What is full duplex communication?

   j)   Write the registered ports.

Q2) Attempt any Four of the following (out of FIVE).   **[4×2=8]**

   a)   Write a note on BSS.

   b)   What are the different layers in the TCP/IP reference model?

   c)   Write the netid & host ID of IP address: 117. 149. 29.4.

   d)   What are the two sub layers of data link layer?

   e)   Write the different control bits or flags in control field of TCP segment.

P.T.O.

Q3) Attempt any TWO of the following (out of THREE). **[2×4=8]**

    a) What is the propagation time for a 2.5 Kbyte message if the bandwidth of the network is 1 Gbps? Assume that the distance between the sender and the receiver is 12,000 km and that light travels at $2.4×10^8$ m/s.

    b) Write the some important design issues of the data link layer.

    c) What are the main properties of routing?

Q4) Attempt any TWO of the following (out of THREE). **[2×4=8]**

    a) Write the difference between TCP & UDP.

    b) Explain sliding window in TCP.

    c) Write the base header format of IPv6.

Q5) Attempt any ONE of the following (out of TWO). **[1×3=3]**

    a) Describe bus topology in detail.

    b) Write the difference between IPv4 and IPv6.

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