2014

COMMUNICATION NETWORKS

Paper : EC-604

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

*Answer **any five** questions.*

1. *(a)* Differentiate between TCP and IP. Draw the TCP/IP model showing the protocols of respective layers. 6+4=10

   (b) What are the responsibilities of Data Link Layer ? Write the various framing techniques employed by Data Link Layer. 7+3=10

2. *(a)* Discuss various guided transmission media. 12

   (b) Write down the important features of circuit-switching technique. 8

3. *(a)* Describe the Send Window of Go-Back-N ARQ protocol with a neat diagram. **10**

   (b) Explain the header format of IPV4 datagram. **10**

4. *(a)* Describe Domain Name System (DNS). What are Primary and Secondary servers ? **5+5=10**

   (b) Differentiate between Recursive Resolution and Iteration Resolution. **5+5=10**

5. *(a)* What are the important features of ATM networks ? Describe various ATM layers. **10**

   (b) Discuss the open-loop congestion control techniques. **10**

6. *(a)* Explain the connection set-up phase of TCP with three-way handshaking. What is half-close TCP ? **8+4=12**

   (b) Define the terms : *(i)* Fragmentation, *(ii)* Re-assembly, *(ii)* Maximum Transfer, Unit (MTU), *(iv)* Time-to-line (TTL) field. **2×4=8**

7. Write short notes on : **5×4=20**

   (i) E-mail process *(ii)* TELNET *(iii)* FDDI and *(iv)* DQDB

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