2016

COMPUTER SCIENCE

(Major)

Paper : 5.3

(Computer Network)

Full Marks : 60

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer **all** questions

1. Answer the following questions : 1×7=7

(a) Which is the uppermost layer of TCP model?

(b) What is modulation?

(c) Mention the name of any mechanism used for error control.

(d) Give an example of random access protocol.

(e) How many bits are used in IPv4 address?

(f) Give an example of application layer protocol.

(g) What is the full form of DNS?

2. Answer the questions very briefly : 2×4=8

(a) What is the difference between half duplex and full duplex?

(b) What is byte stuffing?

(c) What is the advantage of using piggybacking technique?

(d) Mention the names of any two routing protocols.

3. Answer any *three* from the following questions : 5×3=15

(a) Explain different network topologies briefly.

(b) Explain briefly about Go back N and selective repeat technique.

(c) Differentiate between virtual circuit and datagram subnet.

(d) What are the main functions of transport layer?

(e) Write a short note on FTP.

Answer any *three* questions from Question Nos. **4** to **9** : 10×3=30

4. Explain the functions of all layers of OSI reference model.

5. Discuss any flow control algorithm briefly.

6. Explain Pure Aloha and Slotted Aloha with their advantage and disadvantage.

7. Explain Link State Routing Protocol with its all phases.

8. Mention the techniques for achieving good Quality of Service (QoS).

9. Explain the three-way handshaking mechanism for establishing connection.

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