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53 (EC 604) CMNT

2012C

2013

(May)

COMMUNICATION NETWORKS

Paper : EC-604

Full Marks : 100

Pass Marks : 30

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*. What is a half-close *TCP* operation ? 7+3=10
- (b) Describe *TCP* connection termination with three-way handshaking. Give a neat diagram of the same. 10
2. (a) What do you mean by Congestion Control ?
Discuss some open-loop congestion control mechanisms. 2+8=10

Contd.

- (b) Describe the formats of *HTTP* request and response messages. 8
- (c) What is a Proxy Server ? 2
3. (a) Elaborate the *two* approaches to packet-switching. 10
- (b) Draw a *TCP/IP* and *OSI* model. Establish their differences. 10
4. (a) What is *ISDN* ? Explain the major features of Broadband *ISDN*. 3+7=10
- (b) Write short notes on (i) *DQDB* and (ii) *FDDI*. 5+5=10
5. (a) What is the importance of logical (*IP*) address ? Justify the need for Port Address. 5+5=10
- (b) Describe schematically Transport Layer as a process-to-process delivery system. 10
6. (a) Which one is better — a point-to-point connection or a multi-point connection? Why ? 6

- (b) Describe the working of Ethernet technology. 6
- (c) Describe Internet as a Datagram Network. 8
7. (a) What is the use of piggybacking ? Why is *Go-Back-N ARQ* called so? 2+3=5
- (b) Explain Sending and Receiving buffers of *TCP*. 7
- (c) Explain *SMTP* and *FIP* services. 4+4=8