Printed Pages : 2

EEC-702

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 131702

Roll No.

B. Tech.

(SEM. VII) (ODD SEM.) THEORY EXAMINATION, 2014-15

DATA COMMUNICATION NETWORKS

Time : 3 Hours] [Total Marks : 100

Note : (1) Attempt **all** questions.

(2) All questions carry **equal** marks.

(3) Assume any data missing.

1 Answer any **four** parts of the following : **5×4=20**

(a) Compare TCP/IP and OSI model on basis of services, protocols and interfaces.

(b) Explain function of Transport layer of TCP/IP model.

(c) Explain bit stuffing in data with suitable example.

(d) What are the conceptual pieces of a Data communications system? Breifly explain.

(e) What do you mean by layered architecture?

(f) Explain types of addressing. Give some examples of port address.

2 Answer any **four** of the following : **5×4=20**

(a) Explain Datagram switching.

(b) Explain the CRC error detection technique using generator polynomial X^4+X^3+1 and data is11100011.

(c) Explain the concept of sliding window technique for error control.

(d) What do you understand by switch fabric? Define Banyan switch fabric.

(e) Define and explain the various frame type in HDLC.

(f) What do you mean by framing? Explain bit oriented framing and charcter oriented framing.

3 Answer any **two** of the following : **10×2=20**

(a) Explain controlled access method.

(b) Write short note on ethernet.

(c) Define MAC layer of data link layer.Discuss CSMA and CSMA/CA random access method.

4 Answer any **two** parts of the following : **10×2=20**

(a) What is the difference between network layer delivery and transport layer delievery ? Explain the congestion control techniques.

(b) Explain IPv4 and IPv6 addressing.

(c) What do you mean by intradomain and interdomain routing techniques? Explain link state routing.

5 Answer any **two** parts of the following : **10×2=20**

(a) Write short note on digital signature and authentication.

(b) Write short note on Cryptography.

(c) Define connectionless and connection oriented services. Explain header format of TCP protocol.
