Total No. of printed pages = 4

Co-504/CCN/5th Sem/2014/N

COMPUTER COMMUNICATION AND NETWORKING

Full Marks – 70

Pass Marks – 28

Time – Three hours

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

Answer question No.1 and any *four* from the rest.

1. Answer the following short questions : 5×2=10

   (a) Define broadcasting.

   (b) Explain point-to-point networking.

   (c) How communication is possible via fiber optics ?

   (d) What do you mean by well known ports ?

   (e) State the meaning of protocol.

[Turn over

2. (a) Compare : 2×4=8

(i) Connectionless and connection oriented services.

(ii) Packet switching and circuit switching.

(b) State the demerits of TCP / IP model. 7

3. (a) State the design issues which are to be considered before creation of a computer network. 6

(b) Name all the layers of OSI Reference Model. Explain each layer in brief. 2+7=9

4. (a) Illustrate the sliding window protocol. 7

(b) Explain the following design issues related to data link layer : 8

(i) Service provided to upper layer

(ii) Framing

(iii) Error control

(iv) Flow control.

5. (a) Define the terms : 3×1=3

(i) Router

(ii) Repeater

(iii) Bridge.

(b) Illustrate ALOHA protocol. 4

(c) What is CSMA ? Define its different types. 2+6=8

6. (a) Illustrate one routing algorithm – flooding or shortest path routing. 6

(b) Define congestion in network layer. Suggest some principles to control congestion in the network layer. 3+6=9

7. (a) Define the following terms : 4

(i) TPDU

(ii) TSAP.

(b) Illustrate the three-way handshaking for establishing a connection in transport layer. 6

(c) Define the primitives of a simple transport service. 5

8. Write short notes on any *three* : 3×5=15

(a) Coaxial cable

(b) Electronic mail

(c) Remote procedure call

(d) World wide web.