

This question paper contains 4 printed pages.]

1759

Your Roll No.

PGDCA /II Sem.

A

Paper – CS-2.4

COMPUTER NETWORK AND INTERNET

Time : 3 Hours

Maximum Marks : 100

*(Write your Roll No. on the top immediately
on receipt of this question paper.)*

*Attempt **all** questions. Parts of a
question should be answered together.*

1. (a) A host computer is interconnected by a large number of dumb terminals. Is it a computer network? Justify your answer. 2
- (b) Why is the minimum packet size of Ethernet frame 64 bytes? 2
- (c) Give two computer applications for which Connection-Oriented services are appropriate and for which Connectionless services are best. 2

[P.T.O.]

(d) Name any device used in the following layers : 1×4

(i) Physical Layer.

(ii) Data Link Layer.

(iii) Network Layer.

(iv) Transport Layer.

(e) What is a bridge? In which layer you find it ?
Explain the mode of operation of bridges in transmitting frames between LANs. 1+1+3

(f) Diagrammatically explain TCP-header and discuss the various fields of header. 5

2. (a) What do you understand by 10 Base 5 with respect to Ethernet? 2

(b) What is web browser & briefly explain its architecture. 2+3

(c) Give full forms of the following:-

(i) SMTP

(ii) FTP

(iii) HTTP

(iv) ARP 4

- (d) How many types of web documents are there?
Write their advantages and disadvantages. 3+6

3. (a) Name two basic transmission technologies used in networks. 1+2

(b) What problems are associated with SLIP protocol? 3

(c) Explain, OSI reference model. Describe the function performed by each layer. 7

(d) Define CSMA / CD protocol ? In which network is it used ? Which algorithm is used to avoid collisions in CSMA/ CD ? Explain. 2+1+4

4. (a) What is client-server paradigm? 2

(b) Describe connect procedure of Socket API. 3

(c) Draw the waveform of the bit stream 101100111001 using the following encoding schemes: 2x3

(i) Binary encoding

(ii) Manchester encoding

(iii) Differential Manchester encoding

(d) Compare and Contrast the following: 3x3

(i) Circuit switching and packet switching.

(ii) Repeater and Router.

(iii) TCP and UDP.

5. Write short notes on the following:- 4x5

(i) TFTP

(ii) MIME

(iii) PPP

(iv) RARP

(v) NFS