

NEW

2016

BCA

4th Semester Examination

COMPUTER NETWORKS

PAPER—2205

Full Marks : 100

Time : 3 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer Q. No. 1 and any four from the rest.

1. Answer any *five* questions : 5×2
- (a) What is DNS ?
- (b) What is Multiplexing ?

(Turn Over)

- (c) What is Cookie ?
- (d) Define firewal.
- (e) Suppose the following block of 16 bits is to be sent using a checksum of 8 bits :

10100010 00111001

Determine the pattern to be sent.

- (f) Define Piggybacking associated with ARQ technique.
 - (g) Differentiate between broadcasting and multicasting.
 - (h) Given IP address : 201.14.78.65 and the subnet mask : 255.255.255.224 ; what is the subnet address ?
2. (a) What do you mean by network reference model? Describe ISO/OSI reference model in brief. 2+8
- (b) How does ICP/IP reference model differ with ISO/OSI ref. model? 3
- (c) What do you mean by network topology? 2

3. (a) What is synchronous transmission? How does asynchronous transmission differ with it? 3+3
- (b) Describe any one digital to analog modulation technique with suitable example. 6
- (c) Compute the bit rate of a 1000 baud 16-QAM signal. 3
4. (a) Construct the Hamming code for the bit sequence 10011001. 6
- (b) How a lost or damaged frame is handled in Stop and Wait ARQ? 4
- (c) Briefly describe the frame format of a HDLC frame. 5
5. (a) How does CSMA/CD handle a collision? 6
- (b) What do you mean by adaptive routing algorithm? Describe any one of them. 2+5
- (c) What is classless addressing? 2
6. (a) What is Switching Technique? Describe its advantages and disadvantages. Describe message switching. 2+3+2

- (b) Difference between packet switching and circuit switching. 3
- (c) What is Ethernet? What is Token? 3+2
7. Write short notes (any five) : 5×3
- (a) Distortion ;
 - (b) Co-axial cable ;
 - (c) Amplitude Modulation (AM) ;
 - (d) World Wide Web (www) ;
 - (e) User Datagram Protocol (UDP) ;
 - (f) Switch ;
 - (g) Quality of Services (QOS).

[Internal Assessment — 30]
