

B.E DEGREE EXAMINATIONS: NOV/DEC 2014

(Regulation 2009)

Sixth Semester

ELECTRONICS AND COMMUNICATION ENGINEERING

ECE114: Computer Networks

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Communication between a computer and a keyboard involves-----Transmission.
 - a) Simplex
 - b) Half-duplex
 - c) Full-duplex
 - d) Automatic
2. Unipolar, bipolar and polar encoding are types of -----encoding.
 - a) Line
 - b) Block
 - c) NRZ
 - d) Manchester
3. Flow control is needed to prevent
 - a) Bit errors
 - b) Overflow of the sender buffer
 - c) Overflow of the receiver buffer
 - d) Collision between sender and receiver
4. The access method for wireless LANs as defined by IEEE802.11 is based on
 - a) CSMA
 - b) CSMA/CD
 - c) CSMA/CA
 - d) Token Ring
5. The -----traffic shaping method gives a host credit for its idle time
 - a) Leaky Bucket
 - b) Traffic bucket
 - c) Token bucket
 - d) Bursty bucket
6. RIP is based on
 - a) Link state routing
 - b) Distance vector algorithm
 - c) Dijkstra's algorithm
 - d) Path vector routing
7. UDP needs the-----address to deliver user datagram to the correct application program.
 - a) Port
 - b) Internet
 - c) Application
 - d) Physical

- (ii) Discuss the access method used in Ethernet LAN IEEE802.3 (4)

(OR)

- b) Explain in detail HDLC, a bit oriented data link protocol.

23. a) Explain distance vector routing algorithm with an illustrative example.

(OR)

- b) (i) What is sub netting? Discuss. Also state which classes of IP address can be subnetted. What is subnet masking? Discuss? (7)

- (ii) Show that class A has 2,147,483,648 addresses(3).What is the sub network address if the destination address is 200.45.34.56 and the subnet mask is 255.255.240.0 (7)

24. a) (i) Explain the features of TCP. Illustrate the structure of TCP segment and explain. (7)

- (ii) Explain how connection is established and released in TCP with a neat sketch. (7)

(OR)

- b) (i) Explain the different types of sockets used in TCP/IP environment (4)

- (ii) Elaborate on Integrated Services, a flow based QoS model, used in IP. (10)

- .25. a) (i) Explain about RSA public key algorithm with an example. (10)

- (ii) What is a block cipher and outline the function of P-Box. (4)

(OR)

- b) (i) Distinguish between a fully qualified Domain Name Service and partially qualified Domain Name Service. Also discuss the three main divisions of DNS. (10)

- (ii) Explain with an example how mail is sent and received in SMTP? List the services provided by user agents in electronic mail systems. (4)
