Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code : 51412

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2014.

Sixth Semester

Electronics and Communication Engineering

EC 2352/EC 62/10144 EC 603/10144 BME 41 — COMPUTER NETWORKS

(Common to Seventh Semester Biomedical Engineering)

(Regulation 2008/2010)

(Also common to PTEC 2352 – Computer Networks for B.E. (Part-Time) Fifth Semester Electronics and Communication Engineering – Regulation 2009)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1.   List the layers in OSI model.

2.   Distinguish circuit switching and packet switching.

3.   Write any two functions of Data link layer.

4.   Draw the frame format for bit-oriented protocols.

5.   What is the need for adaptive routing algorithms?

6.   What is the speciality of DHCP?

7.   What is a retransmission timer?

8.   Draw the UDP header.

9.   List the three parts of URL.

10. Distinguish substitution and transposition cipher.

PART B — (5 × 16 = 80 marks)

11. (a)   Explain in detail various guided transmission media.

Or

     (b)   Explain the data transfer in cable TV.

12. (a) Discuss in detail one-bit sliding window protocol, Go Back N and Selective Repeat protocol.

Or

(b) With diagram, explain Bluetooth protocol stack.

13. (a) Explain link state routing and broadcast routing with example.

Or

(b) How do IP addresses get mapped onto data link layer addresses, such as Ethernet? Explain with an example.

14. (a) With diagram explain TCP connection establishment in the normal case and call collision case.

Or

(b) Explain in detail window management in TCP.

15. (a) Explain HTTP with example.

Or

(b) With example, explain the authentication using kerberos and public key cryptography.

————————