Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code : 73460

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2017.

Sixth Semester

Electronics and Communication Engineering

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

(Common to Seventh Semester Biomedical Engineering)

(Regulations 2008/2010)

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

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Distinguish between packet switching and circuit switching?

2. List out the limitation of unguided transmission medium.

3. State the difference between fast ethernet and gigabit ethernet.

4. What is HDLC?

5. Compare IPv4 and IPv6 addressing.

6. What is the use of multicast routing?

7. State the difference between UDP and TCP.

8. Name the parameters used to validate QoS of a network.

9. How is a symmetric key different from public key?

10. Discuss the three main divisions of the DNS.

PART B — (5 × 16 = 80 marks)

11. (a) Explain in detail about circuit switching and data gram switching with diagram. (16)

Or

(b) Discuss about OSI reference model with neat sketch. (16)

12. (a) Discuss the architecture of IEEE 802.11 WLAN in detail. (16)

Or

(b) (i) A network using CDMA/CD has a bandwidth of 10 Mbps. If the maximum propagation time including the delays in the devices and ignoring the time needed to send a jamming signal is 25.6 μ sec. What is the minimum size of the frame? (10)

(ii) Highlight the salient feature of virtual circuit networks. (6)

13. (a) Illustrate your understanding on various address mapping schemes with examples.

Or

(b) Discuss in detail any two routing mechanism by considering a network scenario of your choice. (16)

14. (a) (i) Explain how data is transmitted using TCP. (8)

(ii) Why UDP is said to be unreliable? Discuss. (8)

Or

(b) Explain any one congestion control mechanism with a neat sketch. (16)

15. (a) Explain in detail about the following :

(i) DNS (8)

(ii) HTTP. (8)

Or

(b) (i) Write a brief note on File transfer protocol. (8)

(ii) What is Cryptography? Describe Symmetric key and public key algorithms in detail. (8)

———