G 880 (Pages : 2) Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2014

Eighth Semester

Branch : Electrical and Electronics Engineering

COMPUTER NETWORKS (Elective III) (E)

(Old Scheme—Supplementary/Mercy Chance—Prior to 2010 Admissions)

Time : Three Hours Maximum : 100 Marks

Part A

Answer **all** *questions briefly.*
Each question carries 4 *marks.*

1. Explain the important features of WAN.
2. Discuss star network topology, giving its features, merits and demerits.
3. With a simple example, describe how CRC is used for error detection.
4. Explain the features of window adjustment in TCP.
5. Explain fast Ethernet.
6. Explain token bus network principle of operation.
7. Explain internetworking issues.
8. What are the different classes of services provided to the user in a transport layer? Explain.
9. Explain the features of FTP.
10. What are the fundamental principles of cryptography? Explain.

(10 × 4 = 40 marks)

Part B

Answer **all** *questions.*
Each full question carries 12 *marks.*

11. (a) Explain HTTP client/server interaction.

    (b) Explain how TCP provides a pipe between the HTTP client and HTTP server.

Or

12. With reference to an ISDN circuit switched call setup, explain the function of various signalling protocols that operate over the D channel.

13. With relevant diagrams, explain the "Go back N" protocol for computer networks. Mention how selective repeat protocol is similar to this.

Or

14. (a) Explain with examples, the error detection and correction codes.

    (b) Explain the generation of frame in DQDB with necessary figures.

Turn over

15. (a) Explain, in detail, the IEEE 802.3 protocol for medium access control.

(b) Explain the ring maintenance of IEEE 802.5.

Or

16. (a) What is FDDI? Discuss its importance in computer networks.

(b) Give a comparison of the performance characteristics of the two LAN schemes described by ethernet and token ring standards.

17. With neat diagrams, explain the TCP protocol operation.

Or

18. (a) Explain routing optimization in circuit switched networks.

(b) Describe the congestion control of TCP/IP.

19. Explain in detail, the features of TELNET and USENET application protocols.

Or

20. What is computer security? Explain public key cryptography with its applications.

(5 × 12 = 60 marks)