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B.TECH. DEGREE EXAMINATION, NOVEMBER 2014

Eighth Semester

Branch: Electrical and Electronics Engineering

COMPUTER NETWORKS (Elective III) (E)

(Old Scheme-Prior to 2010 Admissions)

[Supplementary/Mercy Chance]

Time: Three Hours

Maximum: 100 Marks

Part A

Answer all questions.
Each question carries 4 marks.

- 1. Describe the uses of computer networks.
- 2. Compare twisted pair and coaxial cable.
- 3. Write notes on Fiber optic networks.
- 4. What is a Bridge?
- 5. Distinguish between connectionless and connection oriented services.
- 6. Explain the different approaches of framing.
- 7. Write notes on Flooding.
- 8. Compare the virtual circuit and datagram subnets.
- 9. Explain WWW.
- 10. What is DNS? Specify its role.

 $(10 \times 4 = 40 \text{ marks})$

Part B

Answer all questions.
Each question carries 12 marks.

- 11. (a) Briefly explain the various network topologies.
 - (b) Explain design issues for the layers.

Or

- 12. (a) Describe the layers of OSI reference model.
 - (b) Explain the error correction and detection.

Turn over

- 13. (a) Explain the services provided by data link layer.
 - (b) Explain the Point to Point protocol.

Or

- 14. (a) Explain one-bit sliding window protocol. Go Back N and selective Repeat protocol.
 - (b) Explain the Ethernet MAC Sublayer protocol.
- 15. (a) Describe the concept of Remote Procedure Call.
 - (b) Explain design issues of network layer.

Or

- 16. (a) Explain the IPv4 header format.
 - (b) Explain CSMA protocol used in LAN.
- 17. (a) Write notes on IP address.
 - (b) Explain Broadcast Routing algorithm.

Or

- 18. (a) Explain connection establishment process in TCP by using handshake mechanism, with a neat diagram.
 - (b) What is the significance of Subnetting? Explain.
- 19. (a) Explain the Ethernet cabling of following: 10 Base 2, 10 Base 5, 10 Base-T and 10 Base-F.
 - (b) Write a note on E-mail.

Or

- 20. (a) List out the various security problems in network.
 - (b) Write a note on Cryptography,

 $(5 \times 12 = 60 \text{ marks})$

