- 19. Elucidate the principles of any two routing algorithms.
- 20. Explain the following
  - (a) Services Provided to the Upper Layers.
  - (b) Architecture and services of electronic mail.

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(For candidates admitted from 2010 to 2015 batch)

B.C.A./B.Sc. DEGREE EXAMINATION, APRIL 2022.

Part III — Computer Applications/Computer Science — Major

## COMPUTER NETWORKS

Time: Three hours

Maximum: 75 marks

SECTION A —  $(10 \times 2 = 20)$ 

Answer ALL questions.

- 1. Define Local Area Network
- 2. What is meant by Point-to-Point links?
- 3. Define Twisted pair cable.
- 4. What is wireless transmission?
- 5. What is meant by Hamming distance?
- 6. What are fields in the frame header?
- 7. What is session based routing?
- 8. What is meant by Quality of Service?

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- 9. Write any two functions provided by the application layer.
- 10. What is meant by URL?

SECTION B —  $(5 \times 5 = 25)$ 

Answer ALL questions, choosing either (a) or (b).

11. (a) Discuss the uses of computer network.

Or

- (b) Compare the OSI and TCP/IP Reference Model.
- 12. (a) Write short notes on Radio Transmission and Microwave Transmission.

Or ·

- (b) Explain the structure of the telephone system.
- 13. (a) Discuss briefly about the Services Provided to the Network Layer by data link layer.

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(b) Explain basic concept of Sliding Window Protocols.

14. (a) What kind of services the network layer provides to the transport layer? Explain.

Or

- (b) Discuss the general principles of congestion control.
- 15. (a) Discuss the primitives for a simple transport services in brief.

Or

(b) Write short notes on domain name system.

SECTION C —  $(3 \times 10 = 30)$ 

Answer any THREE questions.

- 16. Discuss briefly the hardware and software requirements of a networks.
- 17. Explain any two guided and unguided transmission medium.
- 18. Discuss the elementary data link protocol in detail.

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