# **BCA-15** Fundamentals of Computer Networks

### **SET:1**

### **Section-A**

(Very Short Answer Questions)

- 1. (i) What is the standard supported by Wireless LANS?
  - (ii) Describe the use of ISDN.
  - (iii) What is a line of sight network?
  - (iv) What is EPABX?
  - (v) Explain RJ-45.
  - (vi) Define Protocol.
  - (vii) What is Telemetry?
  - (viii) What is the number of links to connect n nodes in a mesh topology?
  - (ix) List out the advantages and drawbacks of bus topology.
  - (x) Define throughput.

#### **Section-B**

(Short Answer Questions)

- 2. Distinguish between data and signal.
- 3. What are the various modes of Data Transmission? Explain in brief.
- 4. Compare Hubs and switches.
- 5. Why multiplexing and de multiplexing is important in computer network.
- 6. Write short note on the following:
  - a. HTTP
  - b. FTP
  - c. TELNET
  - d. UDP
- 7. Explain Link state routing with suitable example. Compare with Distance vector routing.
- 8. What is URL? Discuss IP Address Classes with example.
- 9. What is firewall? Why security is need in Computer Network.

#### **Section-C**

(Long Answer Questions)

- 10. Explain various types of wireless transmission media.
- 11. What is the need of networking? Compare PAN, LAN, MAN and WAN
- 12. What is protocol stack? Explain working of all layer of OSI model given by IEEE
- 13. What is congestion? How it is controlled? Explain in detail.

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# **SET: 2**

### **Section-A**

(Very Short Answer Questions)

- 1. (i) What is the IEEE standard for Token ring network?
  - (ii) What is congestion?
  - (iii) List out the name of some Transport layer protocol.
  - (iv) Name any two Message Digest algorithms?
  - (v) List out the advantages and drawbacks of ring topology.
  - (vi) Name types of cabling supported by Ethernet standard?
  - (viii) What is the principle of light transmission in fibre?
  - (viii) What is Baud?
  - (ix) What is Noise?
  - (x) What do you mean delay?

### **Section-B**

(Short Answer Questions)

- 2. What do you mean by a "Periodic Signal"? And what are the three parameters characterize it?
- 3. On what parameters the quality of transmission depends in case of guided transmission media?
- 4. What is a modem? Briefly describe the operation of a dial-up modem.
- 5. Differentiate between Client server and peer to peer model of networking. Also give some advantages of each
- 6. Write short note on the following:
  - a. Router
  - b. Bridge
  - c. Gateway
- 7. Compare the working of Session and Presentation layer of OSI model.
- 8. Why there is no sequence number in Frame Relay?
- 9. Compare Teleconferencing and Videoconferencing.

### **Section-C**

(Long Answer Questions)

- 10. What do you understand by Network topologies? Explain various types of Network topologies.
- 11. What is Asynchronous Transfer Mode (ATM)? Explain its architecture.
- 12. What is the use of E-commerce? Explain their advantages and disadvantages.
- 13. What types of risk related to security are present in Computer Network? How we cure them.