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Total No. of Questions: 07

Total No. of Pages: 02

**BCA (Sem. 6)**  
**COMPUTER NETWORKS**  
**Subject Code: BSBC-603**  
**Paper ID: A2379**

Time: 3 Hrs.

Max. Marks: 60

**INSTRUCTIONS TO CANDIDATES:**

1. Section A is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. Section B contains **SIX** questions carrying **TEN** marks each and students have to attempt any **FOUR** questions.

**SECTION A**

1. Briefly answer the following questions-
  - a) Differentiate between digital and analog transmission.
  - b) What are the various modes of communication? Briefly discuss each.
  - c) What is Multiplexing?
  - d) Differentiate between LAN and WAN.
  - e) What is frequency spectrum?
  - f) What are the main differences between SLIP and PPP?
  - g) What do you mean by Broadband?
  - h) Briefly explain IEEE 802.4 Token bus standard.
  - i) What is Optimality principle?
  - j) Define Internetworking.

**SECTION B**

2. What do you mean by a network topology? Discuss various network topologies giving merits and demerits of each.
3. Discuss the following transmission techniques for wireless communication:
  - a) Radio transmission
  - b) Microwave transmission
  - c) Infrared transmission
4. What do you mean by Switching? Discuss and distinguish between Circuit switching and Packet switching.

5. Elaborate the TCP/IP reference model in detail.
6. Explain the services provided by the data link layer to network layer. What do you mean by frame? Discuss various framing methods giving their relative merits and demerits.
7. What is Routing? Discuss any routing algorithm in detail.