

Roll No. 

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Total No. of Pages : 02

Total No. of Questions : 07

**BCA (Sem.-3)**  
**COMPUTER NETWORKS**  
Subject Code : UGCA-1913  
M.Code : 78179  
Date of Examination : 21-12-2023

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. Write briefly :**

- a) Differentiate between Circuit Switching and Packet Switching.
- b) Write at least two advantages of Ring topology.
- c) Explain in brief about leased lines.
- d) Explain the term Noise and Distortion in reference to transmission impairments.
- e) Explain the term Flow Control in Data link layer.
- f) What is the need of Error detection? Explain in brief.
- g) Why do we need congestion control?
- h) Write at least two advantages of Token Bucket algorithm.
- i) Explain in brief about TCP protocol.
- j) Explain the term Cryptography in reference to presentation layer.

## **SECTION-B**

2. **Explain the following network topologies along with their advantages and disadvantages:**
  - a) Star
  - b) Bus
  - c) Mesh
3. **Write a detailed note on following Wired transmission**
  - a) Coaxial cables
  - b) Optical Fiber transmission
4. Explain in detail about the error detection and correction code.
5. **Explain the following protocols in detail :**
  - a) SLIP
  - b) PPP
6.
  - a) Explain CSMA/CD in detail.
  - b) Write a detailed note on Congestion control policies.
7. **Write a detailed note on following in reference to Transport layer :**
  - a) Connection Establishment and release
  - b) Flow control and buffering.

**NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.**