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Total No. of Questions : 09

**PGDCA**
# DATA COMMUNICATION AND NETWORKS
**Subject Code : PGDCA-204**
**M.Code : 50513**

Time : 3 Hrs.                                        Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**
1. Attempt all Questions from the Section-A.
2. Attempt any FOUR Questions from Section-B.
3. Attempt any TWO Questions from Section-C.

## SECTION-A

1. **Write briefly :**

   a) Explain the concept of CRC.

   b) What is a layer in OSI reference model?

   c) What are the functions of a layer?

   d) What is network standardization?

   e) What do you mean by the data rate of a channel?

   f) Name various routing algorithms.

   g) What is an IP address? Explain.

   h) What is a window in sliding window protocol?

   i) What are the advantages and disadvantages of fiber optic cable?

   j) What is buffering?

## SECTION-B

2.    Explain the concept of error detection and correction.

3.    Compare circuit *Vs* Packet *Vs* Message switching types.

4.    What are the design issues in Data link layer?

5.    Explain TCP connection management in detail.

6.    Explain IEEE 802 standard for LAN.

## SECTION-C

7.    What is multiplexing? What are its types? Explain in detail all types with their characteristics, advantages and limitations.

8.    Explain the OSI reference model in detail with functioning of each layer.

9.    Explain leaky and token bucket algorithms in detail.

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