

Roll No. 241001261027

**12453**

**MCA 1st Semester  
(Regular/Re-appear/Improvement)  
Examination – December, 2024**

**COMPUTER NETWORKS**

**Paper : MCA-2103**

***Time : Three Hours ]***

***[ Maximum Marks : 80***

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

***Note :*** Attempt *five* questions in all, selecting *one* question from each Unit. Question No. 1 is *compulsory*. All questions carry equal marks.

**1.** Write short notes on the following :

- (a) Multiplexing
- (b) Digital signals
- (c) WAN
- (d) ATM
- (e) Flow control

P. T. O.



- (f) IEEE standards
- (g) Switch
- (h) IRC

#### UNIT - I

2. Draw the block diagram of general communication model and explain the function of each block.
3. Discuss transmission medium in detail.

#### UNIT - II

4. Discuss different network topologies with their merits and demerits.
5. Explain OSI reference model in detail.

#### UNIT - III

6. What is sliding window protocol ? Also write the purpose of sliding window protocol.
7. Discuss CSMA/CD protocol with its purpose in detail.

#### UNIT - IV

8. Explain congestion control in detail. Also discuss quality of service.

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9. Write short notes on the following :

- (a) TCP and UDP
- (b) DNS

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