

(180-CU-504031)

Roll No.....

ID—14537

**B.C.A. EXAMINATION, 2024**

(Fifth Semester)

**DATA COMMUNICATION AND  
NETWORKING**

BCA-303

*Time : 3 Hours*

*Maximum Marks : 80*

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

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

1. Define the following : 2×8=16  
(a) Router

- (b) Bridge
- (c) Data Rate
- (d) Bandwidth
- (e) Bluetooth
- (f) Ethernet
- (g) Digital Signature
- (h) E-Mail

### Unit I

2. Explain Network topologies with their merits and demerits. 16
3. Discuss OSI reference Model in detail. 16

### Unit II

4. Describe the term Multiplexing and switching 16
5. Explain various transmission Media in detail. 16

### Unit III

6. Explain ALOHA and CSMA protocols. 16
7. What is Go-Back-N Protocol ? Differentiate between Go-Back-N and Selective repeat protocol. 16

### Unit IV

8. Explain distance vector routing with a suitable example. 16
9. What is WWW ? Explain the services and features of WWW. 16