

Roll No.

Paper Code – BCA 5003

BCA 3rd Year (Semester-V) EXAMINATION, 2023-24

COMPUTER NETWORK

Paper-III

Time : Two Hours]

[Maximum Marks : 75

Note- This paper consists of three Section A, B and C. Carefully read the instructions of each Section in solving the question paper. Candidates have to write their answers in the given answer-copy only. No separate answer-copy (B Copy) will be provided.

Section-A

(Short Answer Type Questions)

Note- All questions are compulsory. Answer the following questions as short answer type questions. Each question carries 5 marks.

1. (A) What is topology ?
(B) Compare virtual circuits and datagrams.

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- (C) Explain multiplexing technique.
- (D) What is piggy backing ?
- (E) Explain how errors are detected using CRC.
- (F) What are the network components ? Explain.
- (G) What are satellite networks ?
- (H) What is meant by congestion ? List the ways of avoiding congestion.
- (I) Discuss the services offered by the application layer.

Section-B

(Long Answer Type Questions)

Note- This section contains four questions from which one question is to be answered as long question. Each question carries 15 marks.

2. What is a bridge ? What are the functions of bridges ?

(Or)

3. Discuss the methods used for controlling errors in data link layer.

(Or)

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4. Describe the sliding window protocol for data link layer.

(Or)

5. What is framing ? Explain different types of framing protocols with their format.

Section-C

(Long Answer Type Questions)

Note- This section contains four questions from which **one** question is to be answered as long question. Each question carries 15 marks.

6. Explain the applications of computer networks.

(Or)

7. Explain ISDN architecture and its services.

(Or)

8. Explain the cryptography used for network security.

(Or)

9. Explain leaky bucket and token bucket algorithms.

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