



**B.C.A. III Semester Degree Examination, April/May - 2024**  
**COMPUTER SCIENCE**  
**DSC - 9 : Computer Communication and Networks**  
**(NEP)**

Time : 2 Hours

Maximum Marks : 60

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**SECTION - A**

1. Answer **all** the questions. Each question carries **one** mark. **10x1=10**
- (a) What is a network ?
  - (b) Expand the terms HTTP and SMTP.
  - (c) Mention the modes of propagation.
  - (d) What is circuit switching ?
  - (e) Write the main functionality of data link layer.
  - (f) List the types of Noisy Channel.
  - (g) What is routing ?
  - (h) Define flooding.
  - (i) Write the format of user Datagram.
  - (j) What is browser ?

**SECTION - B**

Answer **any four** of the following questions. Each question carries **five** marks.

2. Describe the client server architecture with a neat diagram. **4x5=20**
3. Explain steps involved in CRC (Cyclic Redundant check) error detection.
4. Write a short note on fiber optics.
5. Explain selective Repeat ARQ with sliding window.
6. What is congestion ? Explain Leaky Bucket algorithm.
7. Write the differences between TCP and UDP.



**SECTION - C**

Answer **any three** of the following questions. Each question carries **ten** marks.

**3x10=30**

8. Define Topology. Explain any four topologies with neat diagram.
9. What is multiplexing and demultiplexing ? Explain WDM (wavelength Division Multiplexing)
10. Explain the checksum error detection with an example.
11. Write a note on Distance vector routing algorithm and Link state routing algorithm.
12. Explain the working of E-mail in detail.

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