



Date: \_\_\_\_\_

Unit: \_\_\_\_\_

Activity: \_\_\_\_\_

## COMPUTER NETWORKS

8 Marks

### UNIT-1

- ① Explain in detail about Transmission media?

Transmission media

guided

(Wired Tx)

Unguided

(Wireless Tx)

- ② OSI Reference Model

- ③ TCP-IP reference Model

- ④ Topologies in Network (LAN (MAN/WAN))

2 marks

1. Transmission media types like eg:
2. Topology.
3. Components of Computer Networks.
4. Guided Vs Unguided media.
5. Purpose of  $N/W \Rightarrow H/W + S/W$
6. Purpose of N/W interface card (NIC)



## UNIT-2

Date: \_\_\_\_\_

Unit: \_\_\_\_\_

Activity: \_\_\_\_\_

### 8 Marks

1. CRC with Eg. } Error control techniques.
2. Hamming with Eg. }
3. Data link layer design issues.
4. Error control + Flow control Techniques.  
(CRC / Hamming)      (Simplex / Stop & wait / Go Back N  
Selective repeat / Sliding window)
5. ALOHA / CSMA protocol
6. Sliding window with Eg. } Flow control  
a) Go Back N ARQ  
b) Selective repeat ARQ } Techniques.
7. Functions of routers / Bridges / gateways / switches
8. 802.11 MAC Sublayer Protocol.  
*Very important*

### 2 marks

1. Error corrections & detection (CRC + Hamming)
2. Framing
3. Bridges / Routers
4. Hubs Vs Switches
5. protocol.
6. CSMA.
7. Flow control

Unit - 3

Date: \_\_\_\_\_

Unit: \_\_\_\_\_

Activity: \_\_\_\_\_

8 Marks

1. Routing Algorithm

a) Optimality

b) Shortest path.

2. Distance Vector Routing with Examples?

Often repeated.

3. Link State routing with eg ?.

4. a) IPv6 Vs IPv4

b) Distance Vector Vs Link State.

5. Congestion Control.

2 Marks

1. Load Shedding / Traffic shaping.

2. IPv4 Header } (draw)  
  |  
  IPV6 + Header }

3. design issues of NW layer.

4. Classless IP Address

5. Classful IP Address.

6. Exposed Routing Vs Flooding

7. IPv4 Vs IPv6.

8. Find IP Address

of following

Binary numbers.

9. Find class of  
IP Address.



## Unit - IV

Date:

Unit:

Activity:

### 8 Marks :-

1. Elements of Transport Protocol Addressing

2. TCP Vs UDP

3. TCP Header Format.

4. UDP Header Format.

5. Congestion Control

b. RPC

### 2 marks

1. Sockets & its Commands + Uses

2. Buffering

3. design issues in n/w layers.

4. TCP

5. UDP

b. Congestion.

f. Three way handshaking.

## UNIT - V

Date:

Unit:

Activity:

### 8 Marks :-

1. DNS
2. Email
3. RSA. ( Public Key Algorithm ).
4. Cryptography or Network Security ?
5. HTTP.
6. WWW.

### 2 marks

1. DNS
2. web pages types
3. Symmetric Key Algo.
4. Public Key Alg.
5. Substitution cipher
6. Transposition cipher.
7. Public key Vs Private key  
Encryption                      Encryption.