2 Marks

① Define Gateway?

Gateway is located at the boundary of a network and manages all data that inflows or outflows from that network. It forms a passage between two different networks operating with different transmission protocols.

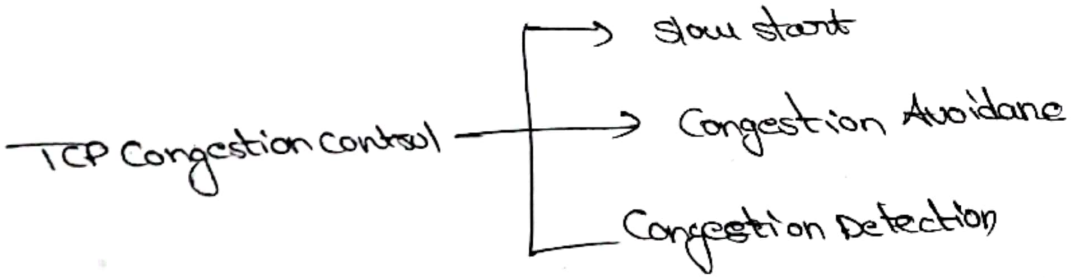
② What is meant by Quality of service?

Quality of service: Quality of service is an overall performance measure of the computer network.

characteristics:

1. Reliability 2. Delay 3. Jitter 4. Bandwidth

③ Define congestion control?



Congestion may happen because of the availability of many packets in the network. The network performance is decrease by congestion, As a result packet delivery to the receiver is delayed or may even be packet loss. Therefore controlling the congestion is known Congestion control.

④ Define TCP?

TCP stands for Transport control protocol.

TCP is ~~one of the~~ a reliable ~~transport~~ protocol. ~~It uses an acknowledge~~

Tcp is called a connection-oriented, reliable transport protocol

TCP services: i. Process-to-process communication
ii. Stream Delivery Service
iii. Sending & Receiving Buffers
iv. Full duplex communication
v. Reliable services

⑤ State the two kinds of events trigger a state transition?

The two kinds of events trigger a state transition.

1. Event Trigger
2. Time Trigger

1. Event Trigger - is the most useful trigger because it allows user to directly interact with a state machine by sending events to it. These events are also called signals.

2. Time Trigger:

Which is useful when something needs to be triggered automatically without any user interaction.

UNIT-4

① List out responsibilities of network layer?

1. Flow control
2. Addressing
3. Error control
4. Routing
5. Congestion control
5. ~~Physical~~ logical addressing
6. Fragmentation
7. Multiplexing
8. packet switching

2. Header Translation

(2) Define Link state Routing?

is a method in which each router shares its neighbourhood's knowledge with every other router in the inter network. In this algorithm, each router in the network understands the network topology then makes a routing table depend on this topology.

(3) Functions of LLC?

LLC - Logical Link Control.

The LLC sublayer provides the logic for the data link.

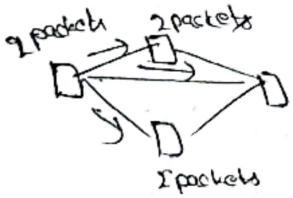
Function:

1. Controls the synchronization
2. Flow control
3. error-checking functions of the Data link layer.

(4) Flooding?

Def: Flooding is one of the algorithm, in which every incoming packet is sent out on every outgoing line except the one it arrived on.

In Flooding duplicate packets are more.



(5) Explain what is meant by routing algorithm?

A routing algorithm is a procedure that lays down the route or path to transfer data packets from source to the destination.

UNIT-V

① Responsibilities of DLL?

⇒ Framing & link access ⇒ addressing
⇒ Reliable delivery
⇒ Flow control
⇒ Error Detection
⇒ Error Correction
⇒ Half-Duplex & Full-Duplex
⇒ Access Control
⇒ Error control

② Enumerate the types of errors?

1. Single bit errors
2. multiple bit errors
3. Burst Error

③ List out the available detection methods?

- Single parity check
- Two-dimensional parity check
- Check Sum
- Cyclic redundancy check.

④ Describe the advantages of a multipoint connection over a point-to-point connection?

1. Cost-effective
2. Improved Scalability
3. Better resource sharing
4. Easier to manage
5. Increased Reliability.

(5) Write a note about Error Detection?

Error detection refers to the techniques used to det noise or other impairments introduced into data while it is transmitted from source to destination.

Error detection is used to check whether the recei has received correct data or corrupted data.