

Q) Explain DSDV routing algorithm in manets.

Destination Sequenced Distance Vector Routing:-

DSDV is a hop-by-hop vector, routing protocol required each node to periodically broadcast routing.

→ Each entry has a sequence number associated with it that helps in identifying stale entries.

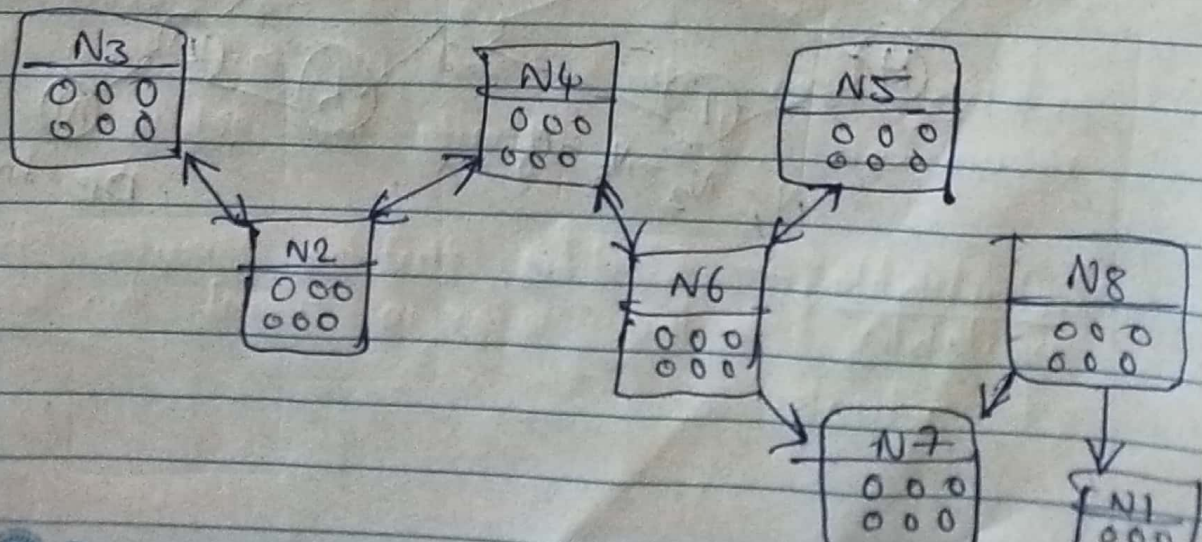
→ This mechanism allows the protocol to avoid the information of routing loops.

Full dump:-

This type of update packet contains all the routing information available at node to be transferred if routing table is large.

Incremental:-

This type of update packet contains only the information that has changed since the latest full dump was sent out by the node.

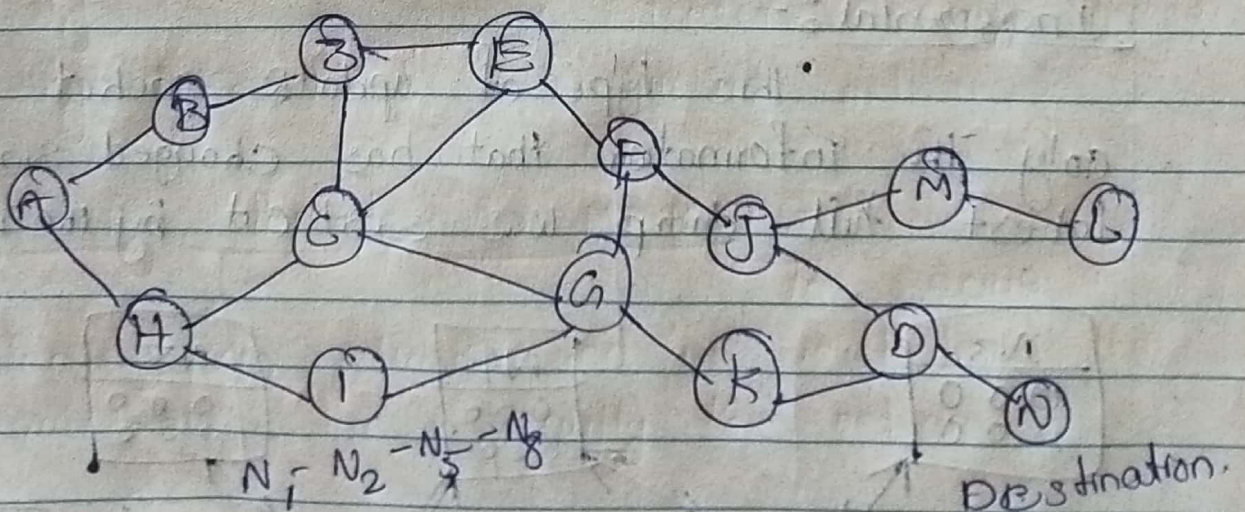


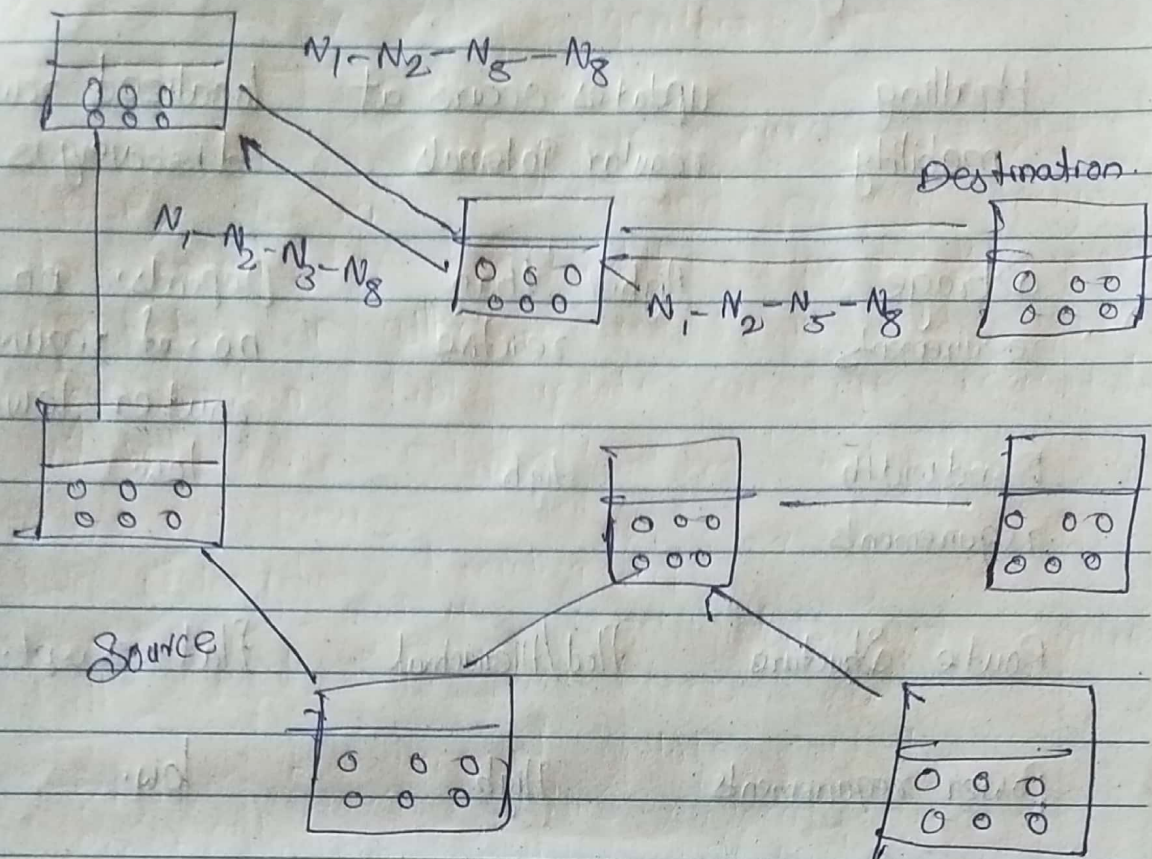
2) Explain DSR in manets?

Dynamic Source Routing (DSR):-

Dynamic Source Routing protocol (DSR) is an on-demand protocol designed to control the band-width expanded by control packets in adhoc wireless networks by removing the broken table update message required in the table driven method and main difference b/w this and the other on demand routing protocol is that the hence does not require interrupted hello pack transmission.

→ Main approach of this protocol during the route construction phase is to establish a route by sub merging node on receiving a route request packets in the network.





DSR-route-reply

3) Compare the reactive and proactive routing protocols.

Parameter	Proactive	Reactive
Delay level	Small as routes are pre determined	High as routes are computed on demand.
Control traffic	Usually higher than reactive	Increases with the mobility of active routes.
Periodic updates	Always required	Not required.



Route availability	Always available	Computed on demand.
Handling mobility	updates occurs at regular intervals	localized route discovery is used.
Storage requirements	Higher than reactive	Depends on the no. of required router low.
Bandwidth requirements	High	low.
Route Structure	Flat/Hierarchical	Flat - except.
Power requirements	High	low

4) What are the security threads to MANET? Why a MANET faces greater security threads than fixed infrastructure networks?

Security threads in MANET:-

To secure a network from attack and we must know the requirements for security the network.

1) Availability:- Certifies that the service should be availability to the user in normal functioning of networks.

2) Authenticity :-

Certifies that the communication b/w nodes is authentic and make sure that the wrong node should not be treated as original node.

3) Data Confidentiality :- It is the major security criteria for these networks. It authenticates that the information.

4) Integrity :- Shows the accuracy of message sent from one to another.

5) Non-repudiation :-

It certifies that the information is genuine. For example if one node get wrong message over the network.