



Assignment

SUBJECT: Mobile Computing

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Class and Section: BS(SE) ,SECTION (B)

Question 1 : In what aspects is an Adhoc network different from infrastructure networks?

Answer: The main difference between adhoc and infratructure network is that in infrastucture networks it consist nodes and access points the infrastructure mode requires a centrel access point that all the devices are connected while the adhoc networks have no access point they are independent this mode is also called peer to peer mode this network don't require a centralized access point and instead wireless networks connects directly to each other.

Question 2 : What is the difference between reactive and proactive routing protocols in MANETS?

Answer: The difference between reactive and proactive routing Protocol in MANETS. The proactive routing protocol is used for information updating in networks while the reactive routing protocol determine the structure of protocol. The adhoc network is temporary network without any form of centralization. the adhoc network quickly changes of network topology making routing in MANETS task. this means that we need a routing protocol that quickly adopts the the topology changes. with this protocol try to minimize control traffic such as periodic update messages. the size of network and the traffic load affects protocol based on source routing like (dsr) to some extent. A large network with many mobile nodes and offer load will increase the overhead for (dsr) quite drastically. observation a hop-by-hop based routing protocol like (adov) is more desirable.

Question 3 : Differentiate between regular and MPR flooding?

Answer: The regular Flooding is a simple routing technique in computer networks where a source send packets through every outgoing link it is similar to broadcasting. the mrps minimize the flooding of broadcasting packet.

Question 4 : On which path is the route reply message sent in DSR?

Answer: The (dsr) route consist of 2 mechanism route discovery and route maintenance . the route discovery is started by source when the source have the data packet to send but but do not have routing information destination data. When a request messages reaches the destination that has route info to the destination. The node send route reply destination contain the path info to the source back. Another is route maintenance. So it is the mechanism in which sender s of a packet detects topology changes that render unless its route to the destination d. whenever the route maintenance shows that source s is broken. The s is

notified with root error packet. The sender s can now take any route to destination d.

Question 5 : What is source routing?

Answer: Source routing also called path addressing.it allow sender a packet partially or completely specify the route the packets take through the network.in conventional routing.routers in the network show the path based of destination.

Question 6 : If AODV does not store route information in the packet then how does the routing works?

Answer: The AdHoc On-Demand Distance Vector (AODV) Protocol is an IP routing protocol that allows users to find and maintain routes to other users in the network. AODV is on-demand, or reactive, in the sense that routes are established only when needed. The routing decisions are made using distance vectors, i.e.distances measured in hops to all available routers. The protocol supports unicast, broadcast, and multicast. The version of AODV we describe below is based on the RFC draft standard .Each nodes maintains a sequence number, which saves a time stamp, and a routing table, which contains routes to destinations. Sequence numbers are used to determine the freshness of routes (the higher the number, the fresher the route, and the older one can be discarded). Each table entry contains the address of the next hop (next node to destination), a hop count (number of hops to the destination) and a destination sequence number. Since this is an on demand distance vector scheme, routers maintain distances of those destinations only that they need to contact or relay information to. Each active route is associated with a lifetime stored in the table,after this time has passed route timeout is triggered, and the route is marked as invalid and later on removed.

Question 7: What are the functions of sequence numbers in AODV?

Answer: The functions of sequence numbers in aodv is different from other on demand routing protocol in that. It determine path to destination. whenever entry happens in the routing table associated with sequence number. so the the seq num reacts as route times stamp ensuring the freshness of route.