

## **Important Instructions:**

- 1) Open this MS-Word document and start writing answers below each respective question given on page 2.**
- 2) Answers the question in the same sequence in which they appear.**
- 3) Provide to the point and concrete answers.**
- 4) First read the questions and understand what is required of you before writing the answer.**
- 5) Attempt the paper yourself and do not copy from your friends or the Internet. Students with exactly similar answers or copy paste from the Internet will not get any marks for their assignment.**
- 6) You can contact me for help if you have any doubt in the above instructions or the assignment questions.**
- 7) All questions must be attempted.**
- 8) Do not forget to write your name, university ID, class and section information.**
- 9) Rename you answer file with your university ID# before uploading to SIC.**
- 10) When you are finished with writing your answers and are ready to submit your answer, convert it to PDF (no MS Word) and upload it to SIC unzipped, before the deadline mentioned on SIC.**
- 11) Do not make any changes to the format provided.**
- 12) Failure in following the above instructions might result in deduction of marks.**

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**Sessional Assignment, Course: - Mobile Computing**

**Deadline: - Mentioned on SIC**

**Marks: - 20**

**Program: - BS (CS), BS-SE**

**Dated: 11 April 2020**

**Related Course: Lecture 7 and 8.**

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**Class and Section: BSSE 8<sup>TH</sup> SECTION A**

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**Q1: In what aspects is an Adhoc network different from infrastructure networks? (3)**

**Answer: Adhoc network:** In this network wireless devices directly connected with each other and communicate with each other:

**Infrastructure network:** in this type of network the wireless device connect with each other to the single access point.

Communication in adhoc directly between devices while in infrastructure through an access point

Security in adhoc no security while in infrastructure more security

Speed in adhoc usually slower while in infrastructure is usually slower.

**Q2: What is the difference between reactive and proactive routing protocols in MANETS? (3)**

**Answer: Proactive Protocols:** Table routing protocol. In proactive routing, each node possesses to lookout of one or more tables to store routing information, and any changes in topology need to be considered by generating updates throughout the network so as on lookout of a consistent network view. Example DSDV.

**Reactive Protocols:** Reactive routing is additionally referred to as on-demand routing protocol since they are doing not maintain routing information or routing activity at the network nodes if there's no communication. Examples is AODV.

**Q3: Differentiate between regular and MPR flooding? (2)**

**Answer: MPR Flooding:** It minimizes the flooding of broadcast packets in the network by reducing duplicate retransmission in the same area.

**Regular Flooding:** It is the passing on by a router of a packet from any node to each other node attached to the router excluding the node from which the packet reached.

**Q4: On which path is the route reply message sent in DSR? (3)**

**Answer:** Route Reply Message can be sent by reversing the route in Route Request (RREQ) only if links are guaranteed to be bidirectional.

**Q5: What is source routing? (2)**

**Answer:** Source routing allows a sender of a knowledge/data packet to partially or completely specify the routing the packet takes through the network. In contrast, in non-source routing protocols, routers within the network determine the path supported the packet's destination.

**Q6: If AODV does not store route information in the packet then how does the routing works? (4)**

**Answer:** If AODV does not store route information in the packet so the routing works alternatively, each addresser remembers reverse path to transmitter.

**Q7. What are the functions of sequence numbers in AODV? (3)**

**Answer:** The functions of sequence number in AODV are:

1. Avoid broken or old routes
2. Avert generation of routing loops