

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.**

Sessional Assignment, Course: - Mobile Computing

Deadline: - Mentioned on SIC

Marks: - 20

Program: - BS (CS), BS-SE

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Related Course: Lecture 7 and 8.

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Class and Section: BS(SE-A) 8th Semester

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

Ans Adhoc Network:

Ad-hoc mode is also known as "peer-to-peer" mode. Ad-hoc networks do not require a centralized access point. Conversely, devices on a wireless network are directly connected to each other. If you set two laptops in ad-hoc wireless mode, they will be connected directly to each other without the need for a centralized access point.

Infrastructure Networks:

Most Wi-Fi networks function in infrastructure mode. The devices on the network all communicate through one access point, which is generally a wireless router. For example, say you have two laptops sitting next to each other, each connected to the same wireless network. Even when sitting side by side, they don't communicate directly. Instead, they communicate indirectly through a wireless access point. They send packets to an access point - maybe a wireless router - and send packets back to other laptops. Infrastructure mode requires a central access point that is connected to all devices.

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

Ans: Reactive routing protocol is high because routes are created on demand while in proactive routing protocols is low because the routes are predefined. In reactive routing protocols the periodic update is not required while in proactive routing protocols the periodic update is always required. In reactive routing protocols the availability of routes is created on demand while in proactive routing protocols the routes are always available.

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

Ans: A regular flooding is when a packet must be flooded each in the network repeats this packet the first time it receives it. In this way starting from the source of the packet, each node in the component connected to the source to receive the packet at least once. In MPR Flooding the number of repeaters but still ensuring that each node in the network receives flooded packets at least once. A MPR Flooding is one of the most popular such optimization having each node select a minimal set of MPR's responsible for relaying flooded packets.

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

Ans: DSR use existing routes to source to send route reply message.
MAC routes are used when the links have to be bi directional.
RREP is used when the link have unidirectional.

Q5: What is source routing? (2)

Ans: The source routing is the path allocating, addressing the sender packet to partially or completely allocate the route the data takes through the network to the receiver.

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

Ans: The AODV does not store route information in the packet and does the routing because each and every forwarder remembers its reverse path to the sender. The sender sends the message to the receiver and reverses its source routing.

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

Ans: AODV is different from other on demand routing protocols because it use sequence numbers to determine and up to date route to a destination. Every entry in the path destination is allocated with sequence numbers which make the data secure and send it to the desire sender.