MANETS Question Bank

Module 1

1. With neat diagram explain about the cellular & ad hoc wireless network. Also bring about the differences between the Ad hoc wireless network and cellular networks
2. Mention the issues in Ad hoc wireless networks, in brief explain.
3. Explain the security threats that exist in Ad-hoc wireless networks
4. Discuss about energy management in adhoc wireless networks
5. Describe QOS parameters, QOS-aware routing and QOS framework in Ad-hoc networks for quality of provisioning quality of service.
6. Briefly describe the routing protocol issues in adhoc wireless network
7. Discuss about the following issues needs to be considered when adhoc wireless network is designed
   1) scalability 2) self-organization 3) addressing and service discovery 4) pricing scheme
8. Explain issues of Ad-hoc wireless Internet and with neat diagram describe the Ad-hoc wireless Internet.
9. Describe the design goals of MAC protocols for Ad-hoc wireless networks
10. With neat diagram illustrate the problem of hidden and exposed terminals in adhoc networks and discuss the solution to overcome it.
11. Explain the classification of MAC protocols
12. Explain the MACAW protocol used in wireless Ad-hoc networks.
13. With neat diagram explain the BTMA, DBTMA & RI BTMA protocol
14. Discuss collision avoidance time allocation protocol with a neat diagram

Module 2

1) Explain about design issues of routing protocols used for Ad-hoc wireless network
2) Describe about the characteristics of an ideal routing protocol for Ad-hoc wireless network
3) Explain the classification of routing protocols
4) List the difference between proactive , reactive routing protocol & hybrid routing protocol
5) With neat diagram briefly explain the Destination Sequenced Distance vector routing protocol (DSDV).
6) With an example discuss about route establishment and route maintenance in wireless routing protocol (WRP).
7) With example illustrate dynamic source routing protocol(DSR) used in ad hoc wireless networks
8) With example explain the Ad-hoc on demand distance vector routing protocol (AODV)
9) With an example discuss about core extraction distributed Ad-hoc routing protocol (CEDAR).
10) Describe the zone routing protocol(ZRP) used in Ad hoc networks
11) Discuss about classification based on route table update mechanism
12) Explain the differences between the AODV & DSR protocol

Module 3

1) Explain design issues of multicast routing protocols used for Ad-hoc wireless network
2) In detail discuss about source initiated
3) In detail discuss about the receiver initiated protocols
4) Explain about soft state and hard state multicast routing protocols
5) Explain the architecture reference model for multicast routing protocols
6) Explain the classification of multicast routing protocol

7) Explain about tree initialization and tree maintenance phase in Bandwidth-efficient multicast routing protocol (BEMRP)

8) With a network example discuss about multicast routing protocol based on zone routing(MZRP) and also discuss its merits and demerits

9) With a neat network diagram discuss about multicast core extraction distributed Ad-hoc routing protocol (MCEDAR).

10) Explain the associative based multicast routing protocol (ABAM)

11) With example explain the working principle of on demand multicast routing protocol (ODMRP)

12) Compare the mesh based & tree based multicast routing protocols

Module 4

1. Explain issues in designing of a transport layer protocol used for Ad-hoc wireless network
2. Explain about design goals of transport layer protocol for AD HOC wireless networks
3. Why does TCP not perform well in AD HOC wireless networks?
4. Discuss about feedback-based TCP
5. With a neat diagram explain TCP-BUS
6. With necessary diagram explain the AD HOC TCP
7. Explain the split TCP protocol
8. Discuss about network security requirements
9. Explain the issues and challenges in security provisioning in AD HOC wireless networks
10. Explain about attacks pertaining to the network layer
11. Briefly discuss about network layer routing attacks
12. With example illustrate substitution and transposition in symmetric key algorithm

Module 5

1. Explain the Issues and Challenges in Providing QoS in Ad-hoc Wireless Networks
2. Explain the layer wise classification of exiting QOS solutions
3. Briefly discuss about cluster TDMA for supporting real time traffic in AD hoc wireless networks
4. Explain the distributed coordination function(DCF)
5. Explain the point coordination function (PCF)
6. With anyone example explain the network layer solutions that supports QOS provisioning
7. Explain Ticket-based QOS routing protocol
8. Explain predictive location-based QOS routing protocol
9. Discuss about QOS enabled AD HOC on demand distance vector routing protocol
10. Discuss the need for energy management in AD HOC wireless networks
11. Explain the classifications of energy management schemes
12. Write a short notes on a) battery management b) transmission power management c) system power management