Reg. No. : | | | | | | | | | | |

Question Paper Code: 49402

B.E./B.Tech. DEGREE EXAMINATION, APRIL 2019

Elective

Electronics and Communication Engineering

14UEC902- MOBILE AD-HOC NETWORKS

(Regulation 2014)

Duration: Three hours Maximum: 100 Marks

PART A - (10 x 1 = 10 Marks)

1. MANET stands for CO1- R

   (a) Multiple ad hoc net (b) Multiple access net

   (c) Mobile access net (d) Mobile ad hoc net

2. The main reason for jamming in wireless network CO1- R

   (a) disruption caused by stronger signal

   (b) disruption caused by electromagnetic emissions of electronic devices

   (c) disruption caused by internal sources ,such as cross talk

   (d) disruption caused by the message is reflected by solid objects

3. In MAC protocol, _____is not required for bandwidth reservation by nodes. CO2- R

   (a) Central coordination (b) Bandwidth efficiency

   (c) Quality of service (d) synchronization

4. _____ Protocols are dependent on existing link information in a network. CO2 -R

   (a) Topology based routing (b) Greedy packet forwarding

   (c) Hierarchical routing (d) Home zone forwarding

5. The criteria to route packets adopted by QoS is CO3- R

   (a) Power-aware metrics (b) Shortest path

   (c) Minimum bandwidth (d) none of the above

6. The main characteristics of an ideal routing protocol for Ad Hoc wireless networks is CO3 -R

(a) it must maximize the use of resources such as bandwidth,memoryandcomputing power

(b) it must be loop free and free from stale routes

(c) it must not converge to optimal routes once network topology becomes stable.

(d) quality of service should be poor as demanded by the application

7. One of the design goal of transport layer protocol for Adhoc wireless network is CO4- R

(a) the transport should have mechanisms for congestion contol and flow control

(b) the protocol should minimize throughput

(c) the protocol should not be able to adapt to the dynamics of the network

(d) the protocol should not maintain end to end semantics

8. Port address is also known as CO4- R

(a) Service point address (b) Receiver point address

(c) Sender point address (d) Both B & C

9. Detection of malicious nodes can be detected by using -------- ----- protocol CO5 -R

(a) Secure (b) un secure (c) A & B (d) None

10. The abbreviation for MIPMANET is? CO5 -R

(a) Movable Internet protocol for Mobile Ad hoc Networks

(b) Mobile Internet protocol for Mobile Ad hoc Networks

(c) Mobile Intelligent protocol for Mobile Ad hoc Networks

(d) Microwave Internet protocol for Mobile Ad hoc Networks

PART – B (5 x 2= 10Marks)

11. Define adhoc networks.. CO1- R

12. Mention the several advantages of MAC protocols that use directional antennas for transmissions. CO2 -R

13. Differentiate proactive and reactive protocol CO3- R

14. What are the fundamental requirements of secure routing for Adhoc wireless networks? CO4 -R

15. Classify the integrating routing solutions based on gateway discovery. CO5-R

PART – C (5 x 16= 80Marks)

16. (a) Illustrate the characteristic features of Mobile ad hoc Networks and state its applications. CO1 -U (16)

Or

(b) (i) Give the characteristics of wireless channel. CO1 -U (8)

(ii) What are the Characteristics features and applications of Adhoc system CO1 -U (8)

17. (a) Explain in detail about contention based protocols with reservation. CO2 -U (16)

Or

(b) Illustrate and explain the radiation pattern and packet transmission of MAC protocol using directional antennas. CO2- Ana (16)

18. (a) Discuss in detail about Unicast routing and Multicast routing Algorithm. CO3 -U (16)

Or

(b) Illustrate the multilayer clustering defined by the HSR protocol and explain the same. CO3- Ana (16)

19. (a) Discuss in detail about Adhoc transport protocols. CO4- U (16)

Or

(b) Briefly describe the attacks pertaining to the network layer with Neat diagram. CO4- U (16)

20. (a) Discuss briefly about parameter optimization technique in detail. CO5 -U (16)

Or

(b) What is the need to integrate adhoc networks with moble IP? explain. CO5- U (16)

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