



R20 Regulation

Subject code: 3E7FB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VII Semester Regular Examinations, November 2023

MOBILE ADHOC NETWORKS

(Information Technology)

Maximum Marks: 70

Date:09.12.2023 Duration: 3 hours

- Note:**
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10x2M=20 Marks)

1	What is HIPER LAN.	L1
2	Define MANET.	L1
3	What are the classifications of MAC protocols?	L1
4	What is MACAW?	L1
5	What is mobility?	L1
6	What is proactive routing?	L1
7	What is congestion? Explain ad hoc TCP.	L1
8	What is AODV protocol?	L1
9	Define cross layer design.	L1
10	What is parameter optimization techniques?	L1

Part-B

Answer All the following questions. (5X10M=50Marks)

11	A. Explain characteristics of wireless channel. [5] B. State and explain applications of mobile ad hoc networks. [5]	L2 L2
OR		
12	Write about indoor and outdoor mobility models? [10]	L2
13	A. What are the design issues of MAC protocol for ad hoc wireless networks? Discuss in brief. [5] B. Elaborate how packet transmission takes place with contention-based protocols with scheduling mechanisms. [5]	L2 L4
OR		
14	A. Give a brief note on contention-based protocols with sender-initiated and receiver-initiated protocols. [5] B. Discuss IEEE 802.11 and IEEE 802.15 standards. [5]	L3 L2
15	A. Identify design issues of routing protocols for ad hoc wireless networks. [5] B. Draw classification of routing protocols for ad hoc wireless networks. [5]	L4 L4
OR		
16	A. Illustrate the flow of dynamic source routing protocol. [5]	L3

	B. What is energy aware routing? Explain ERP protocol. [5]	L2
17	A. Discuss attacks that may occur in network layer. [5] B. Write in detail about security issues in Ad-hoc network. [5]	L2 L2
	OR	
18	A. Discuss in detail TCP bus protocol. [5] B. Classify the network security attacks. [5]	L2 L3
19	A. Identify the need for cross layer design of wireless networks. [5] B. Write about cross layer optimization over OSI networking. [5]	L2 L2
	OR	
20	A. Illustrate the use of Mobile IP in wireless communication. [5] B. Exemplify integration of ad hoc with Mobile IP networks using cross layer design. [5]	L3 L4