R20 Regulation *Subject code:3E7FB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VII Semester Supplementary Examinations, November 2025

MOBILE ADHOC NETWORK

(IT)

Maximum Marks: 70 Date: 03.12.2025 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.
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)		Marks	CO	BTL
1	Define Random walk.	2M	1	L1
2	Define Fading.	2M	1	L1
3	Explain the Hidden and Expose terminal problem.	2M	2	L1
4	Explain Scheduling Algorithm.	2M	2	L1
5	Define Proactive Routing Protocol.	2M	3	L1
6	Distinguish between Unicast Routing and Multicast Routing Algorithm.	2M	3	L1
7	Explain Transport Layer.	2M	4	L1
8	Define Wormhole attack.	2M	4	L1
9	Define security Attack.	2M	5	L1
10	Explain Denial of service	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	a) What are the characteristic features of Mobile Ad-hoc Networks? b) Illustrate Ad-hoc Mobility of Indoor and Outdoor Models.	5M 5M	1	L2
	OR			
12	Illustrate the various Applications of Mobile Ad-hoc Network.	10M	1	L2
13	Describe Contention-Based MAC protocol with Reservation Mechanism and Explain about Synchronous Protocol- D-PRMA.	10M	2	L2
	OR			
14	Describe Contention-Based MAC Protocol and Explain Sender-Initiated Protocol-MACAW and FAMA.	10M	2	L2
15	Discuss Reactive Routing Protocol and Explain-DSR Protocol.	10M	3	L2
	OR			
16	Discuss in details of any two Table-Driven Routing Protocol in Ad-Hoc Networks.	10M	3	L2

17	Discuss the network security attacks in detail.	10M	4	L2
	OR			
18	Discuss in details of issue and challenges in security provisioning.	10M	4	L2
19	Explain the Cross Layer Optimization.	10M	5	L2
	OR			
20	Discuss in details of Cross Layer Design.	10M	5	L2