R20 Regulation *Subject code: 3E7FB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VII Semester Supplementary Examinations, April 2024

MOBILE ADHOC NETWORKS

(Information Technology)

Maximum Marks: 70 Date:27.04.2024 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 Define security threats.
2 Define Doppler Shift.
3 What is Bandwidth Efficiency?
4 Define IEEE 802.11?
5 Define Proactive Routing Protocol.
6 Distinguish between Unicast Routing and Multicast Routing Algorithm.
7 Define Network Layer Attacks.
8 Define Security issue.
9 State the need of cross layer design.
10 What is Mobile IP?

Part-B

Answer All the following questions. (10MX 5=50Marks)

11 a) What are the characteristic features of Mobile Ad-hoc Networks? [5M]
b) Illustrate Ad-hoc Mobility of Indoor and Outdoor Models. [5M]

OR

12 Explain the various Applications of Mobile Ad-hoc Network. [10M]

13 a) Explain HIPERLAN Models. [5M]
b) What are the Goal and classification of MAC Protocol? [5M]

OR

14 a) Compare Reactive and Proactive routing strategies of Ad-Hoc Networks. [5M]
b) Classify the Unicast Routing Algorithm? [5M]

15 a) State design issues of transport layer protocol for ad hoc wireless networks. [5M]
b) Explain working principle of security-aware ad hoc routing protocol (SAR). [5M]

OR

16 Discuss in details of issue and challenges in security provisioning. [10M]

17 Explain the Cross Layer Optimization. [10M]

OR

18 Discuss Network Layer Attacks and Explain Classification of Network Security Attacks. [10M]

19 What is the need to integrate ad hoc networks with mobile IP? Explain. [10M]

OR

20 How the cross layer techniques optimize the routing in ad-hoc networks. [10M]