



R18 Regulation

**TKR COLLEGE OF ENGINEERING AND TECHNOLOGY**

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

Subject code:2E8EC

**B.Tech VIII Semester Regular/Supplementary Examinations, April 2023**

**Adhoc Wireless Networks**  
(CSE)

**Maximum Marks: 70**

Date:03.05.2023 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 Define Cellular networks?
- 2 Differentiate Cellular and adhoc networks?
- 3 What is MAC protocol?
- 4 What do you understand about HRMA?
- 5 Define Dynamic source Routing Protocol?
- 6 Differentiate Static Routing & Dynamic Routing Protocols?
- 7 Design any one of the Goals of a Transport Layer Protocol for Adhoc wireless Networks?
- 8 What is Ad-hoc TCP?
- 9 Write any two Network security Attacks?
- 10 What exactly done by SAR protocol?

**Part-B**

Answer All the following questions.

(10MX 5=50Marks)

- 11 A. Write about sensing and communication range of sensor network. (5M)  
B. Write the Applications of Ad Hoc wireless networks (5M)  
OR
- 12 A. Write in detail about Energy Management? (4M)  
B. Write the following things about adhoc networks (3M+3M)  
i) Medium access scheme ii) Pricing Scheme
- 13 Explain in detail Classification of MAC Protocols? (10M)  
OR
- 14 Write the following (5M+5M)  
i) FPRP ii) HRMA
- 15 Explain the operation of following WSN routing algorithms (5M)  
a) Minimum Cost Forward Algorithm (MCFA) (5M)  
b) Low-Energy Adaptive Clustering Hierarchy Algorithm (LEACH) (5M)  
OR

- 16 What do you mean by key Management Approaches? Where these approaches are used in efficient manner? (10M)
- 17 Explain Issues in Designing a Transport Layer Protocol for Ad-hoc wireless Networks. (10M)  
OR
- 18 Explain in detail about i) Feedback-Based TCP ii) Split TCP (5M+5M)
- 19 Differentiate Symmetric Key Algorithms and Asymmetric Key Algorithms. (10M)  
OR
- 20 Explain in detail with suitable example Criteria for Protecting Ad Hoc Networks? (10M)