



R20 Regulation

Subject code:3E6GB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, May 2025

WIRELESS NETWORKS

CSE(AI&ML)

Maximum Marks: 70

Date: 23.06.2025

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 | What is meant by Electromagnetic Spectrum. | 2M | 1 | L1 |
| 2 | Define Parity check with example. | 2M | 1 | L1 |
| 3 | Differentiate Hidden and Exposed Terminal Problems. | 2M | 2 | L1 |
| 4 | Define FAMA Protocol. | 2M | 2 | L1 |
| 5 | What is Routing Protocol | 2M | 3 | L1 |
| 6 | Describe Frame based Knowledge Representation. | 2M | 3 | L1 |
| 7 | How to provide security in Wireless Networks. | 2M | 4 | L1 |
| 8 | Classify Transport Layer in ADHOC. | 2M | 4 | L1 |
| 9 | What is Cluster TDMA? | 2M | 5 | L1 |
| 10 | Define Bandwidth Routing Protocol. | 2M | 5 | L1 |

Part-B

| Answer All the following questions. (5X10M=50Marks) | | Marks | CO | BTL |
|---|--|-------|----|-----|
| 11 | Explain in Detail Multiple Access Techniques. | 10M | 1 | L2 |
| OR | | | | |
| 12 | Explain in detail HIPERLAN Standard with neat diagram. | 10M | 1 | L2 |
| 13 | Classify Mac Protocol for Ad Hoc Wireless Networks. | 10M | 2 | L2 |
| OR | | | | |
| 14 | Describe MACA with Piggy-Backed Reservation. | 10M | 2 | L2 |
| 15 | a) Explain Hidden and Exposed Terminal Problems? | 5M | 3 | L2 |
| | b) Discuss Cluster-Head Gateway Switch Routing Protocol. | 5M | | |
| OR | | | | |
| 16 | a) Explain about Dynamic Source Routing Protocol. | 5M | 3 | L2 |
| | b) Discuss Temporally Ordered Routing Protocol. | 5M | | |
| 17 | What is TCP? Explain its Design goals of Transport Layer Protocol. | 10M | 4 | L2 |
| OR | | | | |
| 18 | Explain Security in Ad Hoc Wireless Networks. | 10M | 4 | L2 |
| 19 | Explain QoS Parameters in Ad Hoc Wireless Networks. | 10M | 5 | L2 |
| OR | | | | |
| 20 | Explain Trigger Based Distributed QoS Routing Protocol with example. | 10M | 5 | L2 |