



R20 Regulation

Subject code: 3E6GB

# TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

**B.Tech VI Semester Supplementary Examinations, February -2024**

## WIRELESS NETWORKS

(CSE(AI&ML))

Maximum Marks: 70

Date: 22.02.2024

Duration: 3 hours

### Part-A

| All the following questions carry equal marks |   | (10X2M=20 Marks) | CO  | Bloom Tx |
|---|---|------------------|-----|----------|
| 1   | What is wireless communication?   |                  | CO1 | L1       |
| 2   | Write the features of WiMax IEEE802.11.   |                  | CO1 | L2       |
| 3   | Mentions the issues in designing a MAC protocol for Adhoc Networks.                   |                  | CO2 | L2       |
| 4   | What is Antenna Directivity?  |                  | CO2 | L1       |
| 5   | Name the main differences between multi-hop ad-hoc networks and IEEE 802.11 networks. |                  | CO3 | L1       |
| 6   | Define table driven routing protocol.   |                  | CO3 | L1       |
| 7   | How does indirect TCP differ from traditional TCP?                                    |                  | CO4 | L4       |
| 8   | What is snooping TCP?   |                  | CO4 | L4       |
| 9   | Define Adhoc Networks.  |                  | CO5 | L1       |
| 10  | What are the design challenges in Adhoc network?                                      |                  | CO5 | L1       |

### Part-B

| Answer All the following questions. |  | (5X10M=50Marks) |     |          |
|-------------------------------------|--|-----------------|-----|----------|
| 11                                  | A. Explain electromagnetic Spectrum? [5]<br>B. Discuss the characteristics of wireless channel? [5]  |                 | CO1 | L2       |
| OR                                  |  |                 |     |          |
| 12                                  | A. Explain the applications areas of ad hoc networks. [5]<br>B. Differentiate Adhoc and Cellular network? [5]  |                 | CO1 | L2<br>L3 |
| 13                                  | A. List and explain the issues in designing a MAC protocol for ad hoc wireless networks [5]<br>B. Classify MAC protocols for AdHoc networks and present an overview of the same. [5] |                 | CO2 | L1<br>L2 |
| OR                                  |  |                 |     |          |
| 14                                  | A. List and explain the issues in designing a MAC protocol for ad hoc wireless network [5]<br>B. Write the advantages of Directional antennas of MMAC Over MACAW [5]                 |                 | CO2 | L1<br>L2 |
| 15                                  | A. Differentiate on demand and Hybrid protocols. [5]<br>B. Explain in detail AODV routing protocol[5]  |                 | CO3 | L3<br>L2 |
| OR                                  |  |                 |     |          |

|    |   |     |          |
|----|---|-----|----------|
| 16 | A. Why does not TCP work well in ad hoc network? [5]<br>B. List the objectives of the transport layer protocol. [5]   | CO3 | L1       |
| 17 | A. Explain multicast routing algorithms in detail. [5]<br>B. Explain on demand routing protocol in detail. [5]  | CO4 | L2       |
| OR |   |     |          |
| 18 | A. What is TCP? Discuss with an example TCP over Adhoc Wireless Networks. [5]<br>B. Explain the major challenges that a routing protocol designed for adhoc wireless networks face. [5] | CO4 | L1<br>L2 |
| 19 | A. Explain about the QOS in WSN. [5]<br>B. Appraise the QOS related measures in WSN? [5]  | CO5 | L2<br>L3 |
| OR |   |     |          |
| 20 | A. Discuss in detail about MAC Layer solution [5]<br>B. What are the challenges is QOS? [5]   | CO5 | L2<br>L1 |