



Regulation R18

Subject code:2E7FL

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VII Semester Supplementary Examinations, April 2024

WIRELESS SENSOR NETWORKS

(IT)

Maximum Marks: 70

Date:30.04.2024 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 Digital Signal Processor.
- 2 Define Sensing Seismic Event.
- 3 Distinguish between low latency and predictability.
- 4 Define Pure ALOHA.
- 5 Define communication subsystem.
- 6 Explain DC-DC-Converter.
- 7 What are the clock parameters?
- 8 Define Triangulation.
- 9 Define Privacy Attacks.
- 10 Define Denial of service.

Part-B

Answer All the following questions.

(10MX 5=50Marks)

- 11 a) Explain the Processor Subsystem of Node Architecture. [5M]
b) Describe Classification of Wireless sensor Network. [5M]
OR
- 12 Explain the Design Challenges of wireless sensor networks in details. [10M]
- 13 a) Characteristics of MAC protocol in sensor networks. [5M]
b) Explain Channel Encoding in Physical layer. [5M]
OR
- 14 Describe Hybrid MAC Protocol with examples. [10M]
- 15 Discuss about Power Management with an example. [10M]
OR
- 16 Discuss in details of any two Table-Driven Routing Protocol in Ad-Hoc Networks. [10M]
- 17 a) Explain Triangulation and Trilateration of Range-Based Localization. [5M]
b) Describe about GPS-Based location. [5M]
OR
- 18 Discuss in details of any two Time Synchronization protocol in wireless sensor networks. [10M]
- 19 What are fundamental of Networks Security. [10M]
OR
- 20 Explain Security Attacks in Sensor Networks. [10M]