

Code No: R164204A

R16

Set No. 1

IV B.Tech II Semester Advanced Supplementary Examinations, Aug/Sep - 2022

WIRELESS SENSORS AND NETWORKS

(Common to Electronics and Communication Engineering and Electronics and Computer Engineering)

Time: 3 hours

Max. Marks: 70

Question paper consists of Part-A and Part-B

Answer ALL sub questions from Part-A

Answer any FOUR questions from Part-B

PART-A (14 Marks)

1. a) Define sensor networks [3]
b) Give the list of the appropriate transceivers for WSNs. [3]
c) What are the requirements for wireless MAC protocols [2]
d) What are salient features of location-based routing [2]
e) List the issues and challenges in security provisioning of transport layer [2]
f) What do you mean by active and passive attacks [2]

PART-B (4x14 = 56 Marks)

2. a) Explain the various challenges of wireless sensor networks [7]
b) Explain the concept of Gateway in WSN. [7]
3. a) Compare MANET and WSN with suitable examples [7]
b) Write the main functions of physical layer for WSNs. Produce the most important parameters to be considered while designing the physical layer in WSNs [7]
4. a) Design the approaches and performance of S-MAC protocol [7]
b) Illustrate the basics of content-based protocol for WSN [7]
5. a) Explain about Power-Aware routing Protocols. [7]
b) What are the different routing protocols with efficient flooding mechanisms? [7]
6. a) Why does TCP not perform well in Adhoc wireless network? Explain. [7]
b) Write the differences between, Design goals and Design issues of transport layer protocol for Adhoc Wireless Networks. [7]
7. a) List out and explain how some of the internet properties of the wireless Adhoc networks introduce difficulties while implementing security in routing protocols. [7]
b) Write notes on State centric program. [7]

