R16

Set No. 1

IV B.Tech II Semester Regular/Supplementary Examinations, July - 2021
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
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PART–A*(14 Marks)*

1.	a)	List the applications of Wireless Sensor Networks	[2]
	b)	Write the advantages of MANETs.	[2]
	c)	Give application scenarios where contention-based, reservation-based and packet scheduling based MAC protocols can be used.	[3]
	d)	What are the advantages and disadvantages of Hybrid Routing protocol?	[2]
	e)	Illustrate the TCP congestion window.	[2]
	f)	Write a short note on Home automation.	[3]

PART–B*(4x14 = 56 Marks)*

2.	a)	What are the different design challenges in a Wireless sensor Network?	[7]
	b)	Write in detail about Gateway concepts?	[7]
3.		Write in detail about Wireless Personal Area Network (WPAN).	[14]
4.	a)	Explain in detail about Multi-channel MAC protocol.	[7]
	b)	Discuss the detailed operation of DMAC protocol.	[7]
5.	a)	What are hidden and exposed terminal problems in routing? Explain	[7]
	b)	Describe the classification of routing protocols in detail	[7]
6.	a)	Write in detail about Ad-hoc transport protocol.	[7]
	b)	What is TCP with Explicit Link Failure Notification? How is it different from TCP-F?	[7]
7.	a)	Explain in detail about issues and challenges in security provisioning.	[7]
	b)	Give a brief account of Node-level software platforms.	[7]

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