

Hall Ticket Number:

--	--	--	--	--	--	--	--	--	--	--	--

Code No. : 18221

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS), HYDERABAD

Accredited by NAAC with A++ Grade

B.E. (C.S.E.) VIII-Semester Main & Backlog Examinations, June-2022

Adhoc Sensor Networks (PE-V)

Time: 3 hours

Max. Marks: 60

Note: Answer all questions from Part-A and any FIVE from Part-B

Part-A (10 × 2 = 20 Marks)

Q. No.	Stem of the question	M	L	CO	PO
1.	Write two applications of MANETS.	2	2	1	1
2.	Illustrate any one Energy-Efficient Forwarding Scheme for Wireless Sensor Networks.	2	2	1	2
3.	List any four challenging Technologies of Wireless mesh Networks.	2	2	2	1
4.	Compare Broadcasting and multicasting.	2	2	2	1
5.	How many types of cognitive radio are there?	2	1	3	1
6.	Why a typical TCP protocol Cannot be directly applied in Mobile Adhoc network?	2	1	3	1,3
7.	What are the applications of sensor Networks?	2	1	4	1
8.	Why protocols in adhoc networks are not portable to sensor network?	2	1	4	1,2,3
9.	Why security is complicated in WSN?	2	1	5	2
10.	Defend "Network size, control overhead, and traffic intensity are the three issues that affect ad hoc network performance".	2	4	5	2
Part-B (5 × 8 = 40 Marks)					
11. a)	Differentiate between Proactive and Reactive Routing Protocols.	3	2	1	1,3
b)	Explain position-based routing principles of Adhoc Networks. What are various issues related to it?	5	1	1	1,3
12. a)	What is Geocasting in WSN?	3	1	2	1
b)	What is an advantage of a wireless mesh network? Appraise on "Wi-Fi mesh system can replace a router"	5	4	2	1,2
13. a)	Discuss various Cognitive Radio Technologies and its Challenges.	4	2	3	1
b)	Compare the various TCP solutions for adhoc wireless networks.	4	4	3	1
14. a)	Analyze the protocol design issues of ad hoc and sensor networks.	5	3	4	1,2
b)	Discuss the responsibilities of MAC protocol.	3	3	4	1

Contd... 2

170

15. a)	Illustrate Integration MANETs, WLANs, and Cellular network with neat diagram. Also discuss the benefits of Integration.	5	2	5	1
b)	How security is achieved in WSNs? Illustrate on Secure Routing in Sensor Networks.	3	2	5	1,3
16. a)	Discuss Network architecture of Wireless mesh Networks.	4	4	1	1
b)	Can you have too many mesh nodes? Explain the working of mesh networks.	4	3	2	1,3
17.	Answer any <i>two</i> of the following:				
a)	Write note on the following:	4	2	4	1
	i) Self-Organizing MAC for WSN.				
	ii) The Eaves-drop-and register-Protocol.				
b)	Briefly explain the protocol stack of Integrated Networks.	4	3	5	1
c)	Define Spectrum Sensing. What are the functional requirements of IEEE 802.22 WRAN standard?	4	4	3	1,3

M : Marks; L: Bloom's Taxonomy Level; CO; Course Outcome; PO: Programme Outcome

i)	Blooms Taxonomy Level - 1	22.50
ii)	Blooms Taxonomy Level - 2	31.25
iii)	Blooms Taxonomy Level - 3 & 4	46.25
