Code No: 128AA

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech IV Year II Semester Examinations, July - 2019
ADHOC AND SENSOR NETWORKS
(Common to CSE, IT)

Time: 3 hours **Max. Marks: 75**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART - A

(25 Marks)

1.a)	How routing algorithms are classified in MANETS?	[2]
b)	List out the characteristics of mobile adhoc networks.	[3]
c)	Define Multicasting?	[2]
d)	How does the Hidden Terminal Problem affect TCP over multi-hop MANETs?	[3]
e)	Define Mica Mote	[2]
f)	List down the applications of wireless sensor networks?	[3]
g)	Illustrate the three categories of Sensor Network Hardware?	[2]
h)	Discuss about cooperation in MANETS?	[3]
i)	Briefly explain component interface in nesC code.	[2]
j)	What are the components of TinyOS?	[3]

PART - B

(50 Marks)

2. List and explain the applications in Mobile Ad Hoc Networks. [10]

OR

3. Give an example to explain any one topology based routing protocol. [10]

4. Describe in impact of MAC layer and Network layer on TCP. [10]

OR

5. Explain the drawback of the TCP exponential back-off algorithm in MANETS. [10]

6. Explain clustering architecture of WSNs and the importance of the density of the WSN Network for the effective use in its applications. [10]

OR

7. Describe in detail about Sensor-MAC protocol and its design trade-offs for energy consumption. [10]

8. What are the challenges of sensor network programming? Explain. [10]

OR

9. Describe in detail the IDS Architecture for Adhoc and Sensor networks with neat sketch. [10]

10. Describe TinyGAL programming model with its implementation details. [10]

OR

11. Explain NS-2 simulator with its sensor network extensions. Compare Ns-2 simulator with its counter parts. [10]

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