Reg.No. _____

Karunya UNIVERSITY

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

End Semester Examination – Nov/Dec – 2016

Code : 14EC3048

Sub. Name : Embedded Senssor Network

Semester : 2016-17 ODD

Duration : 3hrs

Max. marks : 100

ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)

Q. No.	Sub Div.	Questions	Course Outcome	Marks
1.	a.	Explain the Time synchronization protocols in WSN with examples.	CO1	16
	b.	Suggest and discuss any 2 major challenge of WSN.	CO1	4
		(OR)		
2.	a.	Discuss in detail about the Link layer functions and the protocols of Link Layer.	CO1	20
3.	a.	List the major components of WSN and discuss about them in detail	CO1	16
	b.	What is the significance of attribute based naming? Give an example.	C01	4
		(OR)		
4.	a.	Discuss in detail about trilateration and multilaeration.	CO3	14
	b.	Discuss the advantages and disadvantages of GPS in positioning and tracking	CO3	6
5.	a.	Draw and explain the PPDU, MPDU frame format of IEEE 802.15.4. Also discuss about the different types of data transfer and the security issues of Zigbee.	C02	20
		(OR)		
6.	a.	Explain the Cougar Approach for Query Processing in Sensor Networks	CO3	12
	b.	How is pattern matching done using nearest neighbour algorithm	CO3	8
7.	a.	What is the importance of data aggregation in sensor networks and explain the modes in which it can be done?	CO3	14
	b.	Discuss how location discovery is done using offline phase and real-time phase?	CO3	6
		(OR)		
8.	a.	Discuss in detail about the most commonly used personal area network that can be connected in two different architectures like picconet and scatternet.	CO2	14
	b.	Differentiate between WLAN and WPAN. Give examples for each	CO2	6
		Compulsory:		
9.	a.	How will you manage power in a WSN? Discuss in detail with an example.	CO3	20

ALL THE BEST