

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 : **16EC2003**
Sub. Name : **Recent Trends in Wireless Communications**

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.	Define Wireless sensor network.	CO1	5
	b.	With a neat diagram explain the functional architecture of Sensor Network.	CO1	15
(OR)				
2.	a.	What is medium access?	CO1	5
	b.	How Sensor MAC protocols are different from traditional MAC protocols?	CO1	15
3.	a.	Consider 3 nodes N_1 , N_2 , N_3 in a virtual cluster. If N_2 goes to sleep and N_3 transmits data to N_1 , explain this co-ordinated sleeping scenario of S-MAC with proper illustration. How Adaptive Listening reduces the latency in S-MAC?	CO1	20
(OR)				
4.	a.	State IoT vision. Discuss on key Internet of Things enablers for the success of IoT	CO2	20
5.	a.	Give an example for Smart city.	CO2	5
	b.	Illustrate the application of IoT in a shopping scenario.	CO2	15
(OR)				
6.	a.	What are the types of RFID tags?	CO2	5
	b.	Explain the operation of SDR receiver.	CO3	15
7.	a.	Define Cognitive Radio.	CO3	5
	b.	What are the functions of Cognitive radio?	CO3	15
(OR)				
8.	a.	What is the goal of Spectrum sensing?	CO3	5
	b.	State the benefits and applications of Cognitive radio.	CO3	15
<u>Compulsory:</u>				
9.	a.	What is Cooperative sensing?	CO3	5
	b.	Describe the three Spectrum Sensing Methods.	CO3	15

ALL THE BEST