Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_



**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– 2017**

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|  |  |  |  |
| **Code :** | **16EC2003** | **Duration :** | **3hrs** |
| **Sub. Name :** | **RECENT TRENDS IN WIRELESS COMMUNICATION** | **Max. marks :** | **100** |

**ANSWER ALL QUESTIONS (5 x 20 = 100 Marks)**

|  |  |  |  |  |
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| **Q. No.** | **Sub Div.** | **Questions** | **Course**  **Outcome** | **Marks** |
| 1. | a. | What are issues in Routing Protocols used in Sensor Network? | CO1 | 5 |
| b. | With a neat diagram explain the Sensor Node architecture. | CO1 | 15 |
| (OR) | | | | |
| 2. | a. | What is Idle listening? | CO1 | 5 |
| b. | Data aggregation is an essential part of Wireless Sensor network.Why? | CO1 | 15 |
|  |  |  |  |  |
| 3. | a. | Compare Wireless Sensor Networks and Adhoc Networks. | CO1 | 5 |
|  | b. | Consider 3 nodes N1, N2, N3 in a virtual cluster. If N2 goes to sleep and N3 transmits data to N1, explain this co-ordinated sleeping scenario of S-MAC with proper illustration. How Adaptive Listening reduces the latency in S-MAC? | CO1 | 15 |
| (OR) | | | | |
| 4. | a. | Differentiate the two perspectives of IoT Vision. | CO2 | 5 |
|  | b. | With necessary diagram illustrate the conceptual framework of IoT. | CO2 | 15 |
|  |  |  |  |  |
| 5. | a. | Classify the different types of RFID Tags. | CO2 | 5 |
|  | b. | Show that RFID reader acts as gateway to internet. | CO2 | 15 |
| (OR) | | | | |
| 6. | a. | Distinguish Ubiquitous computing and Personal Computer. | CO2 | 5 |
|  | b. | Smart cities integrate the Internet of Things, big data, cloud computing, mobile apps, and other IT innovation to improve the lives of citizens. Evaluate with suitable smart city example. | CO2 | 15 |
|  |  |  |  |  |
| 7. | a. | Name few SDR softwares. | CO3 | 5 |
|  | b. | With a suitable block diagrams compare SDR Receiver with Traditional Analog Receiver. | CO3 | 15 |
| (OR) | | | | |
| 8. | a. | Summarize the two primary objectives of Cognitive Radio. | CO3 | 5 |
|  | b. | Discuss on Spectrum Sensing.State the benefits and applications of Cognitive radio. | CO3 | 15 |
|  | |  |  |  |
|  | | **Compulsory**: |  |  |
| 9. | a. | What is Cooperative sensing? | CO3 | 5 |
|  | b. | Describe the three spectrum sensing methods. | CO3 | 15 |

ALL THE BEST