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 – April/May – 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 is wireless sensor network? Illustrate the wireless sensor network model. | CO1 | 10 |
| b. | Compare sensor networks and adhoc networks. | CO1 | 10 |
| (OR) | | | | |
| 2. | a. | Bring out the design issues in MAC with respect to wireless sensor network. | CO1 | 10 |
| b. | How energy efficiency is achieved in S-MAC? | CO1 | 10 |
| 3. | a. | What are the various routing strategies used in sensor networks? | CO1 | 10 |
|  | b. | Elucidate the technological trends that shape the future of IoT. | CO2 | 10 |
| (OR) | | | | |
| 4. | a. | State the IoT vision. | CO2 | 10 |
|  | b. | With a neat figure explain the application of IoT in a shopping scenario. | CO2 | 10 |
| 5. | a. | IoT architecture consists of hardware and software. Bring out the significance of both. | CO2 | 10 |
|  | b. | What are the challenges of ubicomp? | CO2 | 10 |
| (OR) | | | | |
| 6. | a. | Give reasons for the need of the various subsystems of Heterodyne Architecture of Software defined radio. | CO3 | 10 |
|  | b. | State the advantages of Software Defined Radio. | CO3 | 10 |
| 7. | a. | Define Primary user and Secondary user in Cognitive radio. | CO3 | 10 |
|  | b. | Analyze Cognitive Life cycle. | CO3 | 10 |
| (OR) | | | | |
| 8. | a. | Compare the different spectrum sensing methods. | CO3 | 10 |
|  | b. | State the benefits of Cognitive Radio. | CO3 | 10 |
|  | | **Compulsory**: |  |  |
| 9. |  | Specifying the main objective of dynamic spectrum access, bring out the three paradigms that facilitate spectrum sharing. | CO3 | 20 |

ALL THE BEST