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**Question Paper Code: 59415**

B.E./B.Tech. DEGREE EXAMINATION, NOV 2018

Elective

Electronics and Communication Engineering

15UEC915-INTERNET OF THINGS

(Regulation 2015)

Duration: Three Hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (5 x 1 = 5 Marks)

1. \_\_\_\_\_ Services are the way in which the Internet of Things is connected to data. CO1- R  
(a) Cloud (b) Big data (c) Internet (d) Network
2. \_\_\_\_\_ manages the metadata of the Internet of Things services. CO2- R  
(a) Power (b) Controller (c) Scheduler (d) Package
3. Which standard bodies govern RFID ? CO3- R  
(a) ISO (b) EPC (c) Zig Bee (d) ISO & EPC
4. \_\_\_\_\_ is security principle concerned with the trustworthiness, origin, completeness, and correctness of information. CO4- R  
(a) Integrity (b) Availability (c) Authentication (d) Accountability
5. \_\_\_\_\_ agency has responsibilities with respect to the cyber-security of Internet-connected medical devices. CO5- R  
(a) Federal Trade Commission (FTC) (c) Department of Justice (DOJ)  
(b) Food and Drug Administration (FDA) (d) Department of Energy (DOE)

PART – B (5 x 3= 15 Marks)

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|-----|--|--------|
| 6.  | What is Internet of Things? What is the need for Internet of Things? | CO1- R |
| 7.  | What are the Identification codes of Object. Give examples.          | CO2- R |
| 8.  | Define RFID  | CO3- R |
| 9.  | List out any three security vulnerabilities of Internet of Things    | CO4- R |
| 10. | What are the advantages of Internet of Things for businesses?        | CO5- R |

PART – C (5 x 16= 80 Marks)

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|-----|---|--------|------|
| 11. | (a) Explain examples of a Applications of IOT in detail.  | CO1- U | (16) |
|     | Or  |        |      |
|     | (b) Explain about high level M2M system architecture in detail  | CO1- U | (16) |
| 12. | (a) (i) Discuss the Traffic characteristics of IoT.   | CO2- U | (8)  |
|     | (ii) Write short note on Sensor Technology.   | CO2- U | (8)  |
|     | Or  |        |      |
|     | (b) Explain key supportive technologies that are needed for wide-scale deployment of IoT applications | CO2- U | (16) |
| 13. | (a) (i) Explain the Architecture of Wireless Sensor Networks.   | CO3- U | (8)  |
|     | (ii) Discuss about Security Challenges of Wireless Sensor networks.                                   | CO3- U | (8)  |
|     | Or  |        |      |
|     | (b) Explain the components of RFID Systems and Issues in detail                                       | CO3- U | (16) |
| 14. | (a) What is Security tomography? Explain in detail layered attacker model.                            | CO4- U | (16) |
|     | Or  |        |      |
|     | (b) Explain security threats on Integrity, Availability, and Non-repudiation.                         | CO4- U | (16) |
| 15. | (a) (i) Describe any four aspects in your business to master IoT.                                     | CO5- U | (8)  |
|     | (ii) Write short notes on Business Model Scenarios for the Internet of Things.                        | CO5- U | (8)  |
|     | Or  |        |      |
|     | (b) (i) Discuss about Applying IoT for Healthcare systems.  | CO5- U | (8)  |
|     | (ii) Discuss about Applying IoT for Home Automation.  | CO5- U | (8)  |