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**Question Paper Code: 39211**

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

Elective

Computer Science and Engineering

01UCS911 - INTERNET OF THINGS

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Define the term 'Bluetooth'.
2. Define Mobile Internet.
3. What is Arduino?
4. List out the hardwares that can support IOT.
5. What are software agents?
6. Write short note on EPC Networks.
7. Define Ontology.
8. Write short note on Ontology.
9. What is meant by content negotiation?
10. List out the features of e-Health sensor platform

PART - B (5 x 16 = 80 Marks)

11. (a) Compare the functions of different communication technologies used in Internet of Things. (16)

Or

- (b) Explain in detail about the following communication technologies of IOT:  
(i) RFID (ii) Zigbee (iii) Wi-Fi and (iv) Mobile Internet. (16)

12. (a) Explain in detail about the examples and working principles of sensors and actuators. (16)

Or

- (b) (i) Briefly explain about how communication is achieved in IOT using Bluetooth and USB. (8)

- (ii) Briefly explain the different types of languages supported by IOT. (8)

13. (a) Explain the data synchronization and clustering principles used in Internet of Things. (16)

Or

- (b) Explain the various technical requirements for satisfying the new demands in production. (16)

14. (a) (i) Discuss about the middleware technologies needed for a DiY internet of things. (8)

- (ii) Briefly explain about the application of Ontology engineering in the internet of things. (8)

Or

- (b) Briefly explain about the application of Ontology engineering in the internet of things. (16)

15. (a) Explain in detail about the designing of RESTful smart things. (16)

Or

- (b) (i) Briefly explain how the data send from microcontroller to cloud. (6)

- (ii) Discuss about the future web of things. (10)