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**Question Paper Code: 39024**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2017

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. What are the basic differences between sensors and actuators?
5. What are software agents?
6. Write any two key functionalities that are required to enable the interaction between items in Autonomy.
7. Define Ontology.
8. What is EURIDICE?
9. What is meant by content negotiation?
10. Write brief note on Web of Things.

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) Explain the working principle of sensors and actuators. (16)

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) Explain the middleware technologies used in DiY Internet of Things for interoperability. (16)

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) Explain the mechanism used in the applications linking Internet of Things to Web of Things. (16)

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