Reg. No. : | | | | | | | | | | |

Question Paper Code: 31277

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

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. What do you meant by internet of things?
2. Define the term 'Bluetooth'.
3. What are the basic differences between sensors and actuators?
4. List out the hardwares that can support IOT.
5. List out the different types of the network architectures for IOT.
6. Write any two key functionalities that are required to enable the interaction between items in Autonomy.
7. Define Ontology.
8. Which business operations causing a huge impact on current and future business operations from the management perspective?
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) (i) Briefly discuss about various challenges and issues in internet of things. (10)

(ii) Briefly explain the following components of internet of things: (a) Control units and (b) Power sources. (6)

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) (i) Discuss in detail about the clustering principles in IOT architecture. (6)

(ii) Briefly explain about data synchronization in IOT with neat sketch. (10)

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) Explain in detail about the DiY service creation framework with diagram. (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)
