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# P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

Sixth Semester, B.E., - Information Science and Engineering

Semester End Examination; May/June - 2019

Internet of Things

Time: 3 hrs

Max. Marks: 100

*Note: Answer FIVE full questions, selecting ONE full question from each unit.*

## UNIT - I

- 1 a. Explain the different components of stakeholder universe in the IOT / M2M world with a diagram. 10
- b. "IOT may well become the killer-app for IPv6". Explain the meaning of this sentence along with advantages of IPv6. 10
- 2 a. Explain WBAN / MBAN along with examples. 10
- b. With a neat diagram, explain M2M HLSA. 10

## UNIT - II

- 3 a. Explain track and trace application examples in M2M communication. 10
- b. Explain any five constituent technologies that can be deployed in open-air surveillance. 10
- 4 a. Write a note on RFID. 10
- b. What are the constraints of M2M nodes? List the properties and requirements of M2M applications. 10

## UNIT - III

- 5 a. With a diagram of the abstract layering of COAP, explain the messaging model and the request / response model. 10
- b. Write a note on SCADA systems. 10
- 6 a. Explain M2M in 3 GPP architecture with a neat diagram. 10
- b. Write a note on Zigbee and IPSO. 10

## UNIT - IV

- 7 a. Explain the RFID middleware architecture. 10
- b. Write a note on RFID tag classes. 10
- 8 a. Explain the RFID architectural model. 10
- b. Write a note on issues related to RFID. 10

## UNIT - V

- 9 a. Discuss about the public network stabilization and balancing mechanism in France from a case study. 15
- b. List the different domains in which electricity is used beyond heating control in winter in France. 5
- 10 a. List the different cases and explain the different charging modes defined by IEC. 10
- b. Explain the high level communication IEC15118. 10