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

(An Autonomous Institution affiliated to VTU, Belagavi)

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

Semester End Examination; Dec - 2017/Jan - 2018

Internet of Things

Time: 3 hrs

Max. Marks: 100

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

UNIT - I

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|------|---|----|
| 1 a. | What is the role of IPV6? Describe the advantage of IPV6. | 10 |
| b. | Explain the elements of device and gateway domain. | 6 |
| c. | What is the network domain composed of? | 4 |
| 2 a. | Explain advanced metering infrastructure. | 10 |
| b. | What is the communication methods used in E-Health? | 4 |
| c. | What are the benefits of MBAN technology? | 6 |

UNIT - II

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|------|---|----|
| 3 a. | Explain different automotive application. | 8 |
| b. | Describe the technologies that can be deployed in integrated open-air surveillance. | 8 |
| c. | What is the design constrains in M2M node? | 4 |
| 4 a. | Describe various approaches of identifying the object of IOT. | 10 |
| b. | With the neat diagram explain RFID reader operation. | 6 |
| c. | Write a note on sensor technology. | 4 |

UNIT - III

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|------|--------------------------------------|----|
| 5 a. | Explain abstract layer of CoAP. | 10 |
| b. | What are the main features of CoAP? | 6 |
| c. | Explain request / response model. | 4 |
| 6 a. | Depicts the M2M service model. | 10 |
| b. | Explain 6LOWPAN and ZigBee IP (ZIP). | 10 |

UNIT - IV

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|------|---|----|
| 7 a. | What are network nodes? Explain various IOT application respect to secured communication through WSN. | 10 |
| b. | Explain components of RFID. | 10 |
| 8 a. | Describe the different RFID applications. | 10 |
| b. | Explain the different RFID tag classes. | 10 |

UNIT - V

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|-------|---|----|
| 9 a. | Discuss on the case study of RTE in France using smart grid. | 10 |
| b. | Explain demand response for transmission system operation. | 10 |
| 10 a. | Explain vehicle charging standards. | 10 |
| b. | What is an electronic vehicle charge? Discuss any one use case. | 10 |