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P.E.S. College of Engineering, Mandya - 571 401
(An Autonomous Institution affiliated to VTU, Belagavi)
Second Semester, M.Tech. - Computer Engineering (MCEN)
Semester End Examination; May / June - 2018
Foundation for 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.	What is IOT? List and explain the characteristic of IOT.	8
b.	Describe any two IOT communication modes with suitable diagrams.	12
2 a.	Discuss about IOT level-5 and level-6 in detail.	10
b.	Describe M_2M gateway with a neat diagram and mention the differences between M_2M and IOT.	10

UNIT - II

3 a.	List the buildings blocks of an IOT device. Describe an IOT device with a neat diagram.	10
b.	Discuss the power and sensor technology of IOT in detail.	10
4 a.	Write a note on RFID.	10
b.	List and explain various Raspberry Pi interfaces. Also write an interfacing module to interface led and switch with Raspberry Pi.	10

UNIT - III

5 a.	Describe Zigbee and its protocol stack with a neat diagram.	10
b.	Write a note on constrained applications protocol.	10
6 a.	Describe various frames used in IEEE 802.15.4 Zigbee communications.	10
b.	Explain Bluetooth protocol stack with a neat diagram.	10

UNIT - IV

7 a.	Explain Web Application Messaging Protocol (WAMP) with a neat diagram.	10
b.	Explain Amazon S_3 and Amazon RDS in detail.	10
8 a.	Discuss about Amazon DynamoDB and Map-Reduce using Python.	12
b.	Write a note on DJango (Python application framework).	8

UNIT - V

9 a.	Describe Aurdino Board and its IDE in detail.	12
b.	Explain smart parking system in detail.	8
10 a.	Discuss smart lightning and home intrusion detection for home automation.	12
b.	Discuss in detail about smart irrigation.	8

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