U.S.N | | | | | | | | | | |

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

(An Autonomous Institution affiliated to VTU, Belagavi)

Eighth Semester, B.E. - Computer Science and Engineering

Semester End Examination; May/June - 2018

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 coordinated sample listing mode of 802.15.4. 10

b. Explain the five classes of BAC Net service. 10

2 a. Explain the following requirements of PLC M2M standard :

i) Openness and availability ii) Range 10

iii) Power consumption iv) Data rate v) Robustness

b. Explain the network layer of BAC Net. 10

UNIT - II

3 a. Explain access and priority mechanism in LONWORKS. 10

b. Explain MODBUS message framing and transmission modes. 10

4 a. Discuss REST interface for LONWORKS. 14

b. Explain Zigbee Node types. 6

UNIT - III

5 a. Explain the inclusion process in Z-wave. 10

b. Explain 3-layer IEC model of wireless M-Bus. 10

6 a. Explain Basic point to point communication over an optical port of C12.18. 10

b. Explain COSEM data model with diagram. 10

UNIT - IV

7 a. Explain 6 LOWPAN header stacking and dispatch type with a diagram. 10

b. Explain RPL routing protocol. 10

8 a. Explain the messaging and registration function of Zigbee SEP 2.0. 10

b. Explain the high level architecture of ETSI M2M. 10

UNIT - V

9 a. Explain the charging modes defined by IEC. 10

b. Explain the three phases of charging EV. 10

10 a. Explain the demand response for transmission system operation. 10

b. Explain the marginal cost of power as a function of current demand level. 10

* * * *