Total No. of Questions : 6]

SEAT No. :

P1446

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T.E./Insem/APR-141
T.E. (Computer Engineering)
EMBEDDED SYSTEM & INTERNET OF THINGS
(2015 Pattern) (Semester - II)

Time : 1 Hour] *[Max. Marks : 30*

Instructions to the candidates:

1) ***Answer any three questions Q1 or Q2, Q3 or Q4 and Q5 or Q6.***
2) ***Assume Suitable data wherever necessary.***
3) ***Figures to the right indicate full marks.***
4) ***Draw neat & labelled diagram wherever necessary.***

Q1) a) Draw and explain generic block diagram of an IoT device. **[4]**

b) List operating modes of ARM. **[2]**

c) List various levels of IoT system and explain Level 6 IoT system with diagram. **[4]**

OR

Q2) a) Define deadline, tardiness and laxity. **[4]**

b) List different IoT protocols. **[2]**

c) Explain what an embedded system is, with few examples. **[4]**

Q3) a) With the help of diagram list and briefly explain the steps involved in the IoT system design methodology. **[5]**

b) Explain application development step of loT system design methodology, consider smart IoT-based home automation system as an example. **[5]**

OR

Q4) a) Explain purpose and requirements specifications step of IoT system design methodology, consider smart IoT-based home automation system as an example. **[5]**

b) Explain service specification step of IoT system design methodology, consider smart IoT-based home automation system as an example. **[5]**

P.T.O.

Q5) a) Draw and explain the four pillars of IoT paradigms. **[4]**

b) Justify, 'the three-layer DCM classification is more about the IoT value chain than its system architecture at runtime'. **[4]**

c) Explain the concept of the Horizontal and verticals in loT. **[2]**

OR

Q6) a) List and explain interfaces available with Raspberry Pi board. **[3]**

b) List and explain various features of Raspberry Pi board (Model B Revision 2). **[4]**

c) Explain SCADA (the internet of controllers) pillar of IoT. **[3]**

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