TE/INSEM/APR-51
T.E. (Computer Engineering) (Semester - II)
310252 : EMBEDDED SYSTEMS & INTERNET OF THINGS
(2015 Pattern)

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

Instructions to the candidates:

1) *Answer Q.1 or Q.2, Q3 or Q.4, Q5. or Q.6.*
2) *Assume suitable data if necessary.*
3) *Figures to the right indicate full marks.*
4) *Draw neat & labelled diagram wherever necessary.*

Q1) a) Explain rate monotonic algorithm with suitable example. Explain the use of Utilization-Based Analysis. **[5]**

b) Explain the Publish-Subscribe Communication Model with diagram.**[5]**

OR

Q2) a) Justify any five features of ARM which makes it special. **[5]**

b) Compare the REST and Web Socket protocol. **[5]**

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

b) Explain process specification for home automation IOT system. **[5]**

OR

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

b) Explain the Operational View Specification step of IoT system design.**[5]**

Q5) a) Justify 'the three-layer DCM classification is more about the IoT value chain than its system architecture at runtime'. **[5]**

b) What is SCADA? What are the different blocks of SCADA? **[5]**

OR

Q6) a) Define and explain Horizontal, vertical application and 5A and 3I. **[5]**

b) List and explain various features of Raspberry pi board (Model B Revision 2). **[5]**

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