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SEAT No. :
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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 Q1 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]

P.T.O.

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]

