PC29

[6360]-29

T.E. (Computer Engineering) (Insem)
INTERNET OF THINGS AND EMBEDDED SYSTEMS
(2019 Pattern) (Semester-I) (Elective - I) (310245 A)

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

Instructions to the candidates:
  1) *Answer Q.1 or Q.2, Q.3 or Q.4.*
  2) *Figures to the right indicate full marks.*

Q1) a) What is System - On - Chip? Discuss the advantages of it.   **[5]**

   b) Discuss a hard real - time system with a suitable example.   **[5]**

   c) Discuss the one of given embedded systems and its components ATM Machine/ Digital Camera.   **[5]**

OR

Q2) a) What are the desirable features of an embedded systems?   **[5]**

   b) Explain soft and hard real - time tasks with suitable examples.   **[5]**

   c) Discuss the components of the microcontrollers with a diagram.   **[5]**

Q3) a) Explain IOT level - 3 with suitable Application and diagram.   **[5]**

   b) Discuss that IOT systems have to be self - adaptive and self - configuring.   **[5]**

   c) What are the underlying characteristics of big data?   **[5]**

OR

Q4) a) Enlist and explain protocols used in IoT.   **[5]**

   b) Explain the Publish - Subscribe communication model with a diagram.   **[5]**

   c) Draw a generic block diagram of IoT and discuss the working of each block.   **[5]**

■ ■ ■ ■