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]**

■■■■