

Total No. of Questions : 4]

SEAT No. :

**P8559**

[Total No. of Pages : 2

**Oct-22/TE/Insem-529**

**T.E. (Computer Engineering)**

**INTERNET OF THINGS AND EMBEDDED SYSTEMS**

**(2019 Pattern) (310245(A)) (Semester - I) (Elective - I)**

**Time : 1 Hour]**

**[Max. Marks : 30**

**Instructions to the candidates :**

- 1) *Attempt Q1 or Q2, Q3 or Q4.*
- 2) *Neat diagram must be drawn wherever necessary.*
- 3) *Assume suitable data if necessary.*

**Q1) a)** What is an embedded system? What are the characteristics of an embedded system? [5]

b) Introduce any embedded processor in brief. Explain its architecture. [5]

c) Differentiate between General Computer and embedded devices. [5]

OR

**Q2) a)** Define SOC. Illustrate SOC types and its examples. [5]

b) Illustrate the different components of Microcontroller. [5]

c) Explain the concept of RTOS. [5]

**Q3) a)** Explain the concept of 'Things' in IoT with suitable examples. [5]

b) Enlist and Demonstrate societal benefits of IoT. [5]

c) What are the challenges in implementing IoT Applications? [5]

OR

**P.T.O.**

- Q4)** a) Enlist IoT deployment levels and explain IoT level 2 with suitable application. [5]
- b) Define IoT and explain its importance in the real-world problem solving. [5]
- c) Illustrate the physical design of IoT with suitable example. [5]

