

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]

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