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]**