

paper code: U359-115 (T1) Civil  
U359-145 (T1) IT  
U359-135 (T1) E&TC

U359-125 (T1) Comp  
U359-155 (T1) Mech

Total No. of Questions - [04]

Total No. of Printed Pages [01]

G.R. No.	
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**OCTOBER 2019/ INSEM (T1)**  
**T. Y. B. TECH. ALL PROGRAMS (SEMESTER -I)**  
**COURSE NAME: INTERNET OF THINGS**  
**COURSE CODE: IE31175CS**

**(PATTERN 2017)**

Time: [1 Hour]

[Max. Marks: 30]

**Instructions to candidates:**

- 1) Answer Q.1 OR Q.2 and Q.3 OR Q.4.
- 2) Figures to the right carry marks.

- Q.1) a) Draw and explain the logical design of IoT. [6]  
b) Design deployment level two IoT System for Smart Irrigation System and explain it. [6]  
c) Define REST-based communication API, list down its constraints. [4]

OR

- Q. 2) a) List four Communication models of IOT and explain any two of them. [6]  
b) Design deployment level one IoT System for Home Automation. [6]  
c) Explain IoT enabling technologies Cloud computing, Data analytics. [4]
- Q. 3) a) Explain MQTT and four messaging modes of CoAP protocol with appropriate figure. [6]  
b) Explain IPv6 protocol along with its header. [4]  
c) Define Wi-Fi and explain elements of Wi-Fi. [4]

OR

- Q. 4) a) Draw and explain the Bluetooth protocol stack. [6]  
b) Draw and explain ZigBee system structure. [4]  
c) Compare MQTT and HTTP protocol. [4]