

Total No. of Questions : 4]

SEAT No. :

**P5061**

[Total No. of Pages : 1

[6187]-464

**T.E. (Information Technology)(Insem)**  
**INTERNET OF THINGS**  
**(2019 Pattern) (Semester-I) (Elective-I) (314445 D)**

*Time : 1 Hour]*

*[Max. Marks : 30*

*Instructions to the candidates:*

- 1) *Solve Q.1 or Q.2, Q.3 or Q.4.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data if necessary*

- Q1)** a) Define IOT and explain physical design of IOT. [7]  
b) Explain IOT World Forum (IoTWF) standardized seven-layer IoT architectural reference model. [8]

OR

- Q2)** a) Explain enabling technologies in IOT. [7]  
b) Write a short note on :  
Software defined Networking  
Network function virtualization [8]

- Q3)** a) Define sensor and explain types of sensors with examples. [7]  
b) Draw and explain interfacing of DC motor with ARDIUNO with program of speed control. [8]

OR

- Q4)** a) Draw and explain interfacing of LED with ARDIUNO with program to blink it. [7]  
b) Write a short note on :  
i) I2C bus protocol  
ii) CAN bus protocol [8]

