Total No. of Questions :6]

SEAT No. :

P54

[Total No. of Pages :2

Oct./TE/ Insem. - 172

T.E. (Electronics Engineering)

INSTRUMENTATION SYSTEM

(2015 Course) (Semester - I) (304202)

Time : 1 Hour] *[Max. Marks :30*

Instructions to the candidates:

1) ***Answer Q1 or Q2, Q3 or Q4, Q5 or Q6.***
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 Errors & Accuracy, Non linearity, Dead band & Saturation? **[6]**

b) List Advantages, Disadvantages & Applications of Sensors & Transducers? **[4]**

OR

Q2) a) Draw a Block diagram Instrumentation system & Explain working of each block in detail. **[6]**

b) Explain Resolution, Frequency response & Response time? **[4]**

Q3) a) Sketch & Explain construction diagram of thermocouple? List various type of thermocouple used in industry? **[6]**

b) Classify Chemical Sensor & List their applications? **[4]**

OR

Q4) a) Draw a block diagram of LM75 and Explain its working in details? **[5]**

b) What do you mean by disappearing filament type pyrometer? **[5]**

P.T.O.

Q5) a) Explain in brief **[6]**

i) Orifice

ii) Venture tube

iii) Flow nozzle

b) Design a set up for level measurement using Ultrasonic Sensor? **[4]**

OR

Q6) a) Explain working operation of vortex shedding flow meter? **[5]**

b) What is anemometers? Explain its working principle. **[5]**

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