SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
M.Tech I Year II Semester Regular & Supplementary Examinations July-2025
INSTRUMENTATION FOR THERMAL ENGINEERING
(Thermal Engineering)

Time: 3 Hours   Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

1	a	How the instruments are classifieds explain in detail with examples.	CO1	L1	6M
	b	How error does differ from an uncertainty?	CO1	L2	6M

OR

2	List out the required Characteristics of measuring instruments and discuss in detail.	CO1	L1	12M

UNIT-II

3	a	Explain in detail about the components used in microprocessor instruments.	CO2	L5	6M
	b	What is mean by saturation errors?	CO2	L1	6M

OR

4	What is mean by intelligent instruments? Write a short note on it.	CO2	L1	12M

UNIT-III

5	a	Explain with neat sketch of instruments used to measure pressure.	CO3	L2	6M
	b	Differentiate between orifice meter and venturi meter.	CO3	L6	6M

OR

6	List out the sensors used to measure various physical variables.	CO3	L1	12M

UNIT-IV

7	List out the sensors used in measurements of physical quantities. Explain in detail about heat flux sensors.	CO4	L1	12M

OR

8	Explain how the sensitivity of the schlieren affected by various parameters?	CO4	L5	12M

UNIT-V

9	Explain with neat sketch chemical gas analyzer.	CO5	L5	12M

OR

10	Discuss about the methodology and procedure to measurement of pH content.	CO5	L6	12M

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