

VEER SURENDRA SAI UNIVERSITY OF TECHNOLOGY, BURLA**Lesson plan****Semester: 6th****Subject: Process Instrumentation**

Lecture	Module	Topic
1	1	Basic principles Elements of instruments Static characteristics
2	1	Dynamic characteristics
3	1	Applications of Laplace transforms in instruments
4	1	Responses of first & second order instruments and capacitance
5	1	Temperature measuring instruments like Bimetallic
6	1	Vapour pressure, Thermocouples Radiation pyrometers
7	1	Automatic Potential Recorders, Resistance thermometers
8	1	Optical Pyrometers
9	1	Levenberg Marquardt's method
10	1	Spectroscopic methods
11	1	Spectroscopic methods
12	2	Spectroscopic methods
13	2	Thermal conductivity cells, Carbon dioxide analyser
14	2	Moisture in paper&lumber Combustible gas analysers
15	2	pH meter, Oxygen analyser, polarograph, Refractometer
16	2	Chromatography, Colorimetry
17	2	Measurement of pressure and vacuum Manometers
18	2	Pressure spring, McLeod gauge, Pirani Gauge
19	2	Ionization Gauge, Thermocouple Gauge
20	2	Responses of these instrument
21	3	Viscosity and specific gravity measurement
22	3	Level measuring devices
23	3	Level measuring devices
24	3	Level measuring devices
25	3	Flow measuring devices
26	3	Flow measuring devices
27	3	Flow measuring devices
28	3	Flow measuring devices
29	3	Humidity measurement
30	3	Class Test on Module-II & III
31	3	Measurement of displacement
32	4	Biosensors and its application
33	4	Circular chart, Strip chart recorders
34	4	Basic idea of automatic control
35	4	Instrumentation diagrams for equipments like evaporators
36	4	Instrumentation diagrams for dryers and chemical reactors
37	4	Instrumentation diagrams for equipments like distillation columns
38	4	Pneumatic transmission with examples, Basic idea of automatic control

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39	4	Pneumatic transmission with examples, Basic idea of automatic control
40	4	Previous year question paper discussion

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