

PNS SCHOOL OF ENGINEERING AND TECHNOLOGY, NISAMANIVIHAR, KENDRAPARA

SEMESTER - 3 RD	NO.OF CLASSES PER WEEK-05	BRANCH :ELECTRONICS & TELECOMMUNICATION
	CLASS ALLOTTED- 61	NAME OF THE FACULTY: AMARENDRA SAHOO
SUBJECT -Th4. ELECTRONICS MEASUREMENT & INSTRUMENTATION		
UNIT	DATE	TOPICS
Unit-1: Qualities of Measurement	15.09.2022	Unit-1: Qualities of Measurement Discuss the Static Characteristics,
	16.09.2022	Accuracy, sensitivity, reproducibility & static error of instruments
	19.09.2022	Dynamic characteristics & speed of instruments
	21.09.2022	Errors of an instrument & explain various types.
	22.09.2022	REVISION/CLASS TEST/ASSIGNMENT
Unit-2: Indicating Instruments	23.09.2022	Unit-2: Indicating Instruments Introduction to Indicator & Display devices & its types
	24.09.2022	Basic principle of meter movement, permanent magnetic moving coil movement
	26.09.2022	advantages & disadvantages.
	28.09.2022	Operation of Moving Iron Instrument
	29.09.2022	Basic principle of operation of DC Ammeter
	30.09.2022	Multi range Ammeter
	10.10.2022	Basic principle of operation of AC Ammeter
	12.10.2022	Multi range Ammeter
	13.10.2022	Basic principle of operation of DC Voltmeter
	14.10.2022	its applications
	15.10.2022	Basic principle of operation of AC Voltmeter
	19.10.2022	its application
	20.10.2022	Basic principle of Ohm Meter (Series
	21.10.2022	Basic principle of Ohm Meter Shunt
	22.10.2022	Basic principle of Analog Multimeter
26.10.2022	its types & applications	
27.10.2022	REVISION/CLASS TEST/ASSIGNMENT	
	28.10.2022	Unit-3: Digital Instruments Principle of operation of Ramp type Digital Voltmeter & applications
	29.10.2022	Operation of display of 3 1/2, 4 1/2– Digital Multimeter
	31.10.2022	Resolution and Sensitivity
	02.11.2022	Basic principle of operation of working of Digital Multimeter

Unit-3: Digital Instruments	03.11.2022	types & applications
	04.11.2022	Basic principle of operation of working of Digital Frequency Meter
	05.11.2022	Operation of working of Digital Measurement of Time
	09.11.2022	REVISION/CLASS TEST/ASSIGNMENT
	10.11.2022	Principle of operation of working of Digital Tachomete
	11.11.2022	Principle of operation of working of Automation in Digital Instruments
	12.11.2022	Indication, Ranging, Zeroing & Fully Automatic
	14.11.2022	Block diagram of LCR meter
	17.11.2022	its working principle
	18.11.2022	REVISION/CLASS TEST/ASSIGNMENT
Unit-4: Oscilloscope	19.11.2022	Unit-4: Oscilloscope Basic principle of Oscilloscope& its Block Diagram
	21.11.2022	Basic principle & Block diagram of CRO, Dual Trace Oscilloscope & its specification
	23.11.2022	CRO Measurements, Lissajous figures
	24.11.2022	Applications of Oscilloscope (Voltage period & frequency measurement)
	25.11.2022	Operation of Digital Storage Oscilloscope& High frequency Oscilloscope
Unit-5: Bridges ypes of Bridges	26.11.2022	Unit-5: Bridges ypes of Bridges (DC& Ac Bridges)
	28.11.2022	DC Bridges (Measurement of Resistance by Wheatstone's Bridge)
	30.11.2022	AC bridges (Measurement of inductance by Maxwell's Bridge & by Hay's Bridge)
	01.12.2022	Measurement of capacitance by Schering's Bridge & DeSauty Bridge.
	02.12.2022	Working principle of Q meter its circuit diagram & measurement of Low impedance
	03.12.2022	Measurement of frequency LCR Meter & its measurements
	04.09.2022	Unit-6: Transducers & Sensors Parameter, method of Selecting & advantage of Electrical Transducer & Resistive Transducer
	05.12.2022	Working principle of Strain Gauges, define Strain Gauge (No mathematical Derivation) Working principle of LVDT
	07.12.2022	Working principle of capacitive transducers (pressure) Working principle of Load Cell (Pressure Cell)
	08/12.2022	Working principle of Temperature Transducer (RTD, Optical Pyrometer, Thermocouple, Thermister)

Unit-6: Transducers & Sensors

09.12.2022	Working principle of Current transducer and KW Transducer.
10.12.2022	Working principle of Proximity & Light sensors.
12.12.2022	Unit-7: Signal Generator, Wave Analyser & DAS General aspect & classification of Signal generators
14.12.2022	Working principle of AF Sine & Square wave generator .
15.12.2022	REVISION/CLASS TEST/ASSIGNMENT
16.12.2022	REVISION/CLASS TEST/ASSIGNMENT
17.12.2022	Working principle of the Function Generator
19.12.2022	Function of basic Wave Analyser& Spectrum Analyser
21.12.2022	Basic concept of Data Acquisition System (DAS)
22.12.2022	REVISION/CLASS TEST/ASSIGNMENT

**SIGNATURE OF LECTURER****SIGNATURE OF HOD**