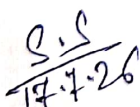
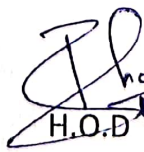


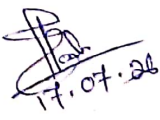
LESSON PLAN FOR ACADEMIC SESSION: 2026-27(Winter)

Discipline: Electrical Engineering	Semester : 3rd	Name of the Teaching Faculty : SUBHASHMITA SAHU
Subject : Electrical and Electronic Measurements	No. of days / week class allotted	Semester From : 17/07/2026 to 05/11/2026 Nos. of Weeks per semester : 15
Week	Class Day	Theory Topics
1 ST	1 st	FUNDAMENTAL MEASUREMENTS 1.1 Measurement: Significance, units, fundamental quantities and standards
	2 nd	1.2 Classification of instrument Systems
	3 rd	1.3 Null and deflection type instruments
2 ND	1 st	1.4 Absolute and secondary instruments
	2 nd	1.5 Analog and digital instruments
	3 rd	1.6 Static and dynamic characteristics, types of error
3 RD	1 st	1.7 Calibration: need and procedure
	2 nd	1.8 Classification of measuring instruments: indicating, recording and integrating instruments
	3 rd	Continue.....
4 TH	1 st	1.9 Essential requirements of an indicating instruments
	2 nd	Measurement of voltage and current 2.1 .1 DC Ammeter: Basic, Multi range ,Universal shunt,
	3 rd	Continue.....
5 TH	1 st	2.2 DC Voltmeter: Basic, Multi-range, concept of loading effect and sensitivity
	2 nd	Continue.....
	3 rd	2.3 AC voltmeter: Rectifier type (half wave and full wave)
6 TH	1 st	Continue.....
	2 nd	2.4 CT and PT: construction, working and applications
	3 rd	Continue.....
7 TH	1 st	Measurement of Electric Power 3.1 Analog meters: Permanent magnet moving coil (PMMC) and Permanent magnet moving iron (PMMI) meter, their construction, working, salient features, merits and demerit
	2 nd	Continue.....
	3 rd	Continue.....
8 TH	1 st	3.2. Dynamometer type wattmeter: Construction and working
	2 nd	3.3 Errors and compensations of PMMIPMMC and Dynamometer type wattmeter
	3 rd	Continue.....

9 TH	1 st	3.4 Active and reactive power measurement: One, two and three wattmeter method
	2 nd	3.5 Effect of Po wattmeter reading wattmeter method
	3 rd	3.6 Maximum Demand indicator(Definition only)
10 TH	1 st	Measurement of Electric Energy 4.1 Single and three phase electronic energy meter: Constructional features and working principle
	2 nd	Continue.....
	3 rd	4.2 Errors and their compensations
11 TH	1 st	Continue.....
	2 nd	4.3 Calibration of single-phase elect energy meter using direct loading
	3 rd	Continue.....
12 th	1 st	Continue.....
	2 nd	Circuit Parameters Measurement 5.1 Measurement of resistance 5.3 Low resistance kelvin double bridge 5.4 Medium resistance voltmeter and encounter method 5.5 High resistance megger and ohm meter : series and shunt
	3 rd	Continue.....
13 th	1 st	5.6 Measurement of inductance using anderson bridge 5.7 Measurement of capacitance using schering bridge
	2 nd	5.8 single beam , single trace CRO 5.9 digital storage Oscilloscope : Basic block diagram, working, cathode Ray tube, electrostatic deflection , vertical amplifier, time base generator, horizontal amplifier, measurement of voltage, amplitude, time period, phase angle delay line, frequency specification.
	3 rd	Continue.....
14 th	1 st	Continue.....
	2 nd	5.9 other meter, earth tester , digital multimeter, L-C-R meter, frequency meter, phase sequence indicator, power factor meter, Tri-vector meter.
	3 rd	Continue.....
15 th	1 st	Question discussion
	2 nd	Question discussion
	3 rd	Question discussion


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