

LESSION PLAN FOR ACADEMIC SESSION 2021-22

Discipline: Electrical Engineering	Semester:-4 th	Name Of The Teaching Faculty:- B.Subhalaxmi pani
Subject:- Electrical Measurement & Instrumentation	No. Of Days/Week Class Allotted:-5	No. Of Weeks:-15
Week	No. Of Class	Topic To Be Taught
1 st	1 st	Define accuracy, precision, errors, resolutions sensitivity and tolerance..
	2 nd	Classification of measuring instruments..
	3 rd	Explain deflecting, controlling and damping arrangements in indicating type of instruments.
	4 th	calibration of instruments
	5 th	Revision of previously taught topic and doubt clearing
2 nd	1 st	Introduction to analog ammeters and voltmeters
	2 nd	Describe construction, principle of operation, errors, ranges merits and demerits of: Moving iron type instruments.
	3 rd	Permanent magnet moving coil type instruments..
	4 th	Pmmc.
	5 th	Revision of previously taught topic and doubt clearing
3 rd	1 st	Dynamometer type instruments
	2 nd	Continue emmc
	3 rd	Rectifier type instruments
	4 th	Rectifier type instruments
	5 th	Revision of previously taught topic and doubt clearing
4 th	1 st	Induction type instruments
	2 nd	Induction type instruments
	3 rd	Extend the range of instruments by use of shunts and multipliers.
	4 th	Solve numerical
	5 th	Problem solve
5 th	1 st	Introduction to wattmeters and measurement of power
	2 nd	Describe construction, principle of working of dynamometer type wattmeter. (lpf type)
	3 rd	Describe construction, principle of working of dynamometer type wattmeter. (upf type)
	4 th	The errors in dynamometer type wattmeter..
	5 th	Revision
6 th	1 st	Methods of their correction
	2 nd	Discuss induction type watt meters.
	3 rd	Induction type wattmeter
	4 th	Numerical solve
	5 th	Energy meters and measurement of energy

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	2 nd	Single phase induction type energy meters – construction, working principle.
	3 rd	Compensation & adjustments.
	4 th	Continue single phase induction type energy meters
	5 th	Problem discussion
	8 th	1 st
	2 nd	Continue single phase induction type energy meters
	3 rd	Testing of energy meters.
	4 th	Continue testing of energy meters.
	5 th	Doubt clearing classes
	9 th	1 st
	2 nd	tachometers
	3 rd	Types and working principles of tachometer
	4 th	Principle of operation and construction of mechanical type frequency meters
	5 th	Revision of previous topic
	10 th	1 st
	2 nd	Principle of operation and construction of mechanical type frequency meters
	3 rd	Principle of operation and working of dynamometer type single phase power factor meters.
	4 th	Principle of operation and working of dynamometer type three phase power factor meters.
	5 th	Brief discussion of previous chapter
	11 th	1 st
	2 nd	Measurement of low resistance by potentiometer method. .
	3 rd	Measurement of medium resistance by wheat stone bridge method.
	4 th	Measurement of high resistance by loss of charge method.
	5 th	Problem solve
	12 th	1 st
	2 nd	Construction and principles of multimeter. (analog and digital)
	3 rd	Measurement of inductance by maxewell's bridge method.
	4 th	Measurement of capacitance by schering bridge method
	5 th	Problem solve
	13 th	1 st

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	2 nd	Resistive transducer
	3 rd	Linear and angular motion potentiometer
	4 th	Thermistor and resistance thermometers
	5 th	Wire resistance strain gauges
	14 th	1 st
	2 nd	Capacitive transducer. General principle of capacitive transducer
	3 rd	Variable area capacitive transducer. Change in distance between plate capacitive transducer.
	4 th	Piezo electric transducer and hall effect transducer with their applications
	5 th	Revision of previous topic
	15 th	1 st
	2 nd	Principle of operation of cathode ray tube.
	3 rd	Principle of operation of oscilloscope (with help of block diagram).
	4 th	Measurement of dc voltage & current
	5 th	Measurement of ac voltage, current, phase & frequency

B. Jyothsna Devi
Teaching Faculty

R. S. R.
13.02.23
H.O.D - E.E

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Principal

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