

LESSON PLAN 2022(SUMMER)

Discipline: Electrical Engg.	Semester:4th Sem	Name of the Teaching Faculty: Mrs. Jayashree Mohanty, Sr. Lect. Electrical Engg	
Subject: Energy Conversion-I	Theory Periods: 5P/Week	Semester From Date:-10.03.22 to Date:- 10.06.22	No. of Weeks:15
1st Week	1st	Operating principle of generator	
	2nd	Constructional features of DC machine, Yoke, Pole & field winding, Armature, Commutator.	
2nd Week	1st	Armature winding, back pitch, Front pitch, Resultant pitch and commutator- pitch	
	2nd	Simple Lap and wave winding, Dummy coils.	
	3rd	Different types of D.C. machines (Shunt, Series and Compound)	
	4th	Derivation of EMF equation of DC generator.(Solve problems)	
3rd Week	1st	Losses and efficiency of DC generator. Condition for maximum efficiency and numerical problems.	
	2nd	numerical problems	
	3rd	Armature reaction in D.C. machine	
	4th	Commutation and methods of improving commutation	
	5th	Role of inter poles and compensating winding in commutation	
4th Week	1st	Characteristics of D.C. Generators	
	2nd	Application of different types of D.C. Generator	
	3rd	Concept of critical resistance and critical speed of DC shunt generator	
	4th	Conditions of Build-up of emf of DC generator	
5th Week	1st	Parallel operation of D.C. Generators	
	2nd	Uses of D.C generators	
	3rd	Basic working principle of DC motor	
	4th	Significance of back emf in D.C. Motor	
	5th	Voltage equation of D.C. Motor and condition for maximum power output(simple problems)	
6th Week	1st	Derive torque equation (solve problems)	
	2nd	Characteristics of shunt, series and compound motors and their application.	
	3rd	Starting method of shunt, series and compound motors.	
7th Week	1st	Speed control of D.C shunt motors by Flux control method	
	2nd	Speed control of D.C shunt motors by Armature voltage method	
	3rd	Speed control of D.C. series motors by Field Flux control method	
	4th	Speed control of D.C. series motors by Tapped field method and series-parallel method	
	5th	Determination of efficiency of D.C. Machine by Brake test method(solve numerical problems)	
8th Week	1st	Determination of efficiency of D.C. Machine by Swinburne's Test method(solve numerical problems)	
	2nd	Losses, efficiency and power stages of D.C. motor.	
	3rd	(solve numerical problems)	
	4th	Uses of D.C. motors	
	5th	Working principle of transformer.	

9th Week	1st	Constructional feature of Transformer. Arrangement of core & winding in different types of transformer, Brief ideas about transformer accessories such as conservator, tank,
	2nd	Ideas about breather, and explosion vent etc. Explain types of cooling methods
	3rd	State the procedures for Care and maintenance
	4th	EMF equation of transformer
10th Week	1st	Ideal transformer voltage transformation ratio
	2nd	(solve numerical problems)
	3rd	Operation of Transformer at no load, on load with phasor diagrams.
	4th	Equivalent Resistance, Leakage Reactance and Impedance of transformer.
	5th	To draw phasor diagram of transformer on load, with winding Resistance and Magnetic leakage with using upf, leading pf and lagging pf load.
11th Week	1st	To explain Equivalent circuit and solve numerical problems.
	2nd	Approximate & exact voltage drop calculation of a Transformer
	3rd	Regulation of transformer
	4th	Different types of losses in a Transformer. Explain Open circuit and Short Circuit test.
12th Week	1st	(Solve numerical problems)
	2nd	Explain Efficiency, efficiency at different loads and power factors, condition for maximum efficiency
	3rd	(solve problems)
	4th	Explain All Day Efficiency (solve problems)
	5th	Determination of load corresponding to Maximum efficiency.
13th Week	1st	Parallel operation of single phase transformer
14th Week	1st	Constructional features of Auto transformer. Working principle of single phase Auto Transformer
	2nd	Comparison of Auto transformer with a two winding transformer (saving of Copper).
	3rd	Uses of Auto transformer. Explain Tap changer with transformer (on load and off load condition)
15th Week	1st	Explain Current Transformer
	2nd	Potential Transformer
	3rd	Define Ratio error
	4th	Phase angle error, Burden
	5th	Uses of C.T. and P.T

Prakash
(S.A. Lect. Elec.)

Prakash
Principal
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08.03.22

LESSON PLAN 2022(Summer)

Dicipline: ELECTRICAL	Semester :4th Sem	Name of the Teaching faculty: Sudhansu Sekhar Munda Lect in E & TC
Subject: Analog Electronics Circuit .	No.of days/per week classalloted:4p/week	Semester From date: 10.3.22 to Date: 10.6.22 No . Of Weeks: 15 Week
Week	Class Day	Theory Topics
2nd week of March	1st	P-N JUNCTION DIODE: 1.1P-N JUNCTION DIODE , 1.2 Working of Diode
	2nd	1.3 V-I characteristic of PN junction Diode.
	3rd	1.4 DC load line
	4th	1.5 Important terms such as Ideal Diode, Knee voltage
3rd week of March	1st	1.6 Junctions break down. 1.6.1 Zener breakdown 1.6.2 Avalanche breakdown
	2nd	1.7 P-N Diode clipping Circuit.
	3rd	1.8 P-N Diode clamping Circuit
	4th	SPECIAL SEMICONDUCTOR DEVICES: 2 .1 Thermistors
4th week of March	1st	Sensors & Barretters
	2nd	2.2 Zener Diode
	3rd	2.3 Tunnel Diode
	4th	2.4 PIN Diode
1st week of April	1st	RECTIFIER CIRCUITS & FILTERS: 3.1Classification of rectifiers
	2nd	3.2 Analysis of half wave, full wave Analysis of half wave centre tapped and Bridge rectifiers

	3rd	3.2.1 Calculate DC output current and voltage
	4th	3.2.3 Rectifier efficiency
2nd week of April	1st	Filters: 3.3.1 Shunt capacitor filter
	2nd	3.3.2 Choke input filter 3.3.3 π filter
	3rd	TRANSISTORS : 4.1 Principle of Bipolar junction transistor
	4th	4.2 Different modes of operation of transistor
3rd week of April	1st	4.3 Current components in a transistor 4.4 Transistor as an amplifier
	2nd	4.5 Transistor circuit configuration & its characteristics
	3rd	4.5.1 CB Configuration
	4th	4.5.2 CE Configuration
4th week of April	1st	4.5.3 CC Configuration
	2nd	TRANSISTOR CIRCUITS: 5.1 Transistor biasing
	3rd	5.2 Stabilization
	4th	5.3 Stability factor
5th week of April	1st	5.4 Different method of Transistors Biasing
	2nd	5.4.1 Base resistor method
	3rd	5.4.2 Collector to base bias
	4th	5.4.3 Self bias or voltage divider method
	1st	TRANSISTOR AMPLIFIERS & OSCILLATORS: 6.1 Practical circuit of transistor amplifier

1st week of May	2nd	6.2 DC load line and DC equivalent circuit
	3rd	6.3 AC load line and AC equivalent circuit
	4th	6.4 Calculation of gain
	1st	6.5 Phase reversal
2nd week of May	2nd	6.6 H-parameters of transistors
	3rd	6.7 Simplified H-parameters of transistors
	4th	6.8 Generalised approximate model
3rd week of May	1st	6.9 Analysis of CB, CE, CC amplifier using generalised approximate model
	2nd	6.10 Multi stage transistor amplifier 6.10.1 R.C. coupled amplifier 6.10.2 Transformer coupled amplifier
	3rd	6.11 Feed back in amplifier 6.11.1 General theory of feed back 6.11.2 Negative feedback circuit 6.11.3 Advantage of negative feed back
	4th	6.12 Power amplifier and its classification 6.12.1 Difference between voltage amplifier and power amplifier 6.12.2 Transformer coupled class A power amplifier 6.12.3 Class A push – pull amplifier 6.12.4 Class B push – pull amplifie

4th week of May	1st	6.13 Oscillators 6.13.1 Types of oscillators 6.13.2 Essentials of transistor oscillator 6.13.3 Principle of operation of tuned collector, Hartley, colpitt, phase shift, wein bridge oscillator (no mathematical derivations)
	2nd	FIELD EFFECT TRANSISTOR: 7.1 Classification of FET
	3rd	7.2 Advantages of FET over BJT
	4th	7.3 Principle of operation of BJT
5th week of May	1st	7.4 FET parameters (no mathematical derivation)
	2nd	7.4.1 DC drain resistance 7.4.2 AC drain resistance
	3rd	7.4.3 Trans-conductance 7.5 Biasing of FET
	4th	OPERATIONAL AMPLIFIERS: 8.1 General circuit simple of OP-AMP and IC – CA – 741 OP AMP
	1st	8.2 Operational amplifier stages

1st week of June	2nd	8.3 Equivalent circuit of operational amplifier
	3rd	8.4 Open loop OP-AMP configuration
	4th	8.5 OPAMP with fed back
	1st	8.6 Inverting OP-AMP
2nd week of June	2nd	8.7 Non inverting OP-AMP
	3rd	8.8 Voltage follower & buffer
	4th	8.9 Differential amplifier 8.9.1 Adder or summing amplifier 8.9.2 Subtractor 8.9.3 Integrator 8.9.4 Differentiator 8.9.5 Comparator

Sudhansu Sekhar M.
Lect. in ETC

A. S. S.
Principal 19/3/22
Govt Polytechnic
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S.M.
15.3.22

LESSON PLAN 2022 (SEMESTER 4)

Discipline :
Electrical

Semester : 4th

Name of the Teaching Faculty : Sindhuja Dehury.

Subject :
EM & I

No of days/ per
week class allotted :
5p/week

Semester From : 10-2-22 to 10-06-22
No of week : 16 week

Week

Class Day

Theory Topics

1st

01

Define Accuracy, precision, error,
Resolution sensitivity & tolerance.

02

Classification of measuring instrument.

03

Explain Deflecting, controlling & damping
arrangements in indicating type of
instrument.

04

Calibration of instrument

05

Tutorial classes.

2nd

01

Measurement of voltage & current
(Analog Ammeter & voltmeter)

02

Describe construction, principle of operation
of moving iron type instruments.

03.

Error, Range limits & elements of MI
type instrument.

04

Permanent Magnet Moving coil type
instrument

05

Tutorial classes

3rd

01

Dynamometer type instrument

02

Rectifier type instrument

03

Induction type instrument.

04

Extend the range of instruments by
use of shunts & Multipliers (Solve
Numerical)

05


Tutorial classes


Week	Class Day	Theory Topics
4 th	01	Measurement of power
	02	Discuss about wattmeter
	03	Describe construction, principle of working of Dynamometer type wattmeter
	04	LPF type
	05	Tutorial classes
5 th	01	UPF type
	02	Error in Dynamometer type wattmeter & Methods of their correction
	03	Induction type watt meter
	04	Discuss about measurement of energy
	05	Tutorial classes
6 th	01	Introduction of measurement of Energy
	02	Single phase induction type Energy meters - construction, working principle
	03	single phase Induction type Energy meter compensation & adjustments.
	04	Testing of energy meter.
	05	Tutorial classes
7 th	01	Introduction - Measurement of speed, Frequency & power factor
	02	Tachometers, type & working principles
	03	Principle of operation & construction of Mechanical resonance type freq. meter.

Week	Class Day	Theory Topics
8 th	04	Electrical resonance type frequency meter.
	05	Tutorial classes.
	01	Introduction about Dynamometer
	02	Principle of operation & working of Dynamometer -
	03	Single phase power factor Meter
	04	Three phase power factor meters.
	05	Tutorial classes.
9 th	01	Classification of Resistance - Measurement of low resistance by Potentiometer Method.
	02	Measurement of ^{Medium} resistance by wheat stone bridge method, Measurement of high resistance by loss of charge Method.
		Construction, principle of operation of Megger & Earth tester for insulation resistance & earth resistance measurement
	05	Tutorial classes
10 th	01	Construction & principles of Multimeter
	02	Measurement of inductance by Maxwell's Bridge method
	03	Measurement of capacitance by Schering Bridge Method.
	04	Define Transducer, sensing element or detector element & transduction elements

Week	Class Day	Theory Topics
11 th	05	Tutorial classes
	01	Classify transducer. Give examples of various class of transducer
	02	Resistive transducer
	03	Linear & angular motion potentiometer
	04	Thermistor & Resistance potentiometer
12 th	05	Tutorial classes
	01	Wire Resistance strain gauges
	02	Inductive transducer
	03	Principle of LVDT
	04	Use of LVDT
13 th	05	Tutorial classes
	01	Capacitive transducer
	02	General principle of capacitive transducer
	03	Variable area capacitive transducer
	04	Change in distance bet ⁿ plate capacitors transducer
14 th	05	Tutorial classes.
	01	Introduction about piezo electric transducer
	02	Hall effect transducer
	03	Application of piezo electric transducer
	04	Application of Hall effect transducer
	05	Tutorial classes

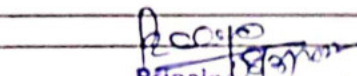
Week	Class Day	Theory Topics
15 th	01	Principle of operation of cathode Ray Tube
	02	Principle of operation of oscilloscope
	03	Measurement of DC voltage & current
	04	Measurement of AC voltage, current, phase & Frequency
	05	Tutorial classes


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 Smitaleena Dehury
 (Lect. in Electrical)
 08-07-22

Discipline: ELECTRICAL	Semester: 4TH	Name of the Teaching Faculty: MONALISA PANI
Subject: GTD	No. of Days/per week class allotted:	Semester From Date: 14.03.22 To Date: 10.06.22
Week	Class Day	No. of Weeks
		Theory/Practical Topics
1ST		1 Elementary idea on generation of electricity from Thermal, Hydel, Nuclear, Power station.
		2 Introduction to Solar Power Plant (Photovoltaic cells).
		3 Layout diagram of generating stations
2ND		4 Revision
		1 Layout of transmission and distribution scheme
		2 Voltage Regulation & efficiency of transmission.
		3 State and explain Kelvin's law for economical size of conductor
3RD		4 Corona and corona loss on transmission lines
		1 Types of supports, size and spacing of conductor
		2 Types of conductor materials, State types of insulator and cross arms.
		3 Sag in overhead line with support at same level and different level. (approximate formula effect of wind, ice and temperature on sag)
4TH		4 Simple problem on sag.
		1 Numericals Practice
		2 Calculation of regulation and efficiency.
		3 Performance of Short Transmission Line
5TH		4 Performance of Medium Transmission Line
		1 EHV AC transmission.
		2 Reasons for adoption of EHV AC transmission
		3 Problems involved in EHV transmission.
		4 HV DC transmission, Advantages and Limitations of HVDC transmission system
6TH		1 Introduction to Distribution System
		2 Connection Schemes of Distribution System: (Radial, Ring Main and Inter connected system)
		3 DC distributions, DC distribution, Distributor fed at one End.
		4 Distributor fed at both the ends
7TH		1 Ring distributors, AC distribution system
		2 Method of solving AC distribution problem
		3 Three phase four wire star connected system arrangement
		4 Underground Cables-Introduction

8TH	1 Cable insulation and classification of cables
	2 Types of L.T. & H.T. cables with constructional features
	3 Methods of cable laying
	4 Localization of cable faults: Murray and Varley loop test for short circuit fault / Earth fault
9TH	Economic Aspects Causes of low power factor and methods of improvement of power factor in
	1 power system
	2 Factors affecting the economics of generation: (Define and explain)
	3 Load curves, Demand factor, Maximum demand, Load factor
	4 Diversity factor, Plant capacity factor
10TH	1 Peak load and Base load on power station
	2 Types of Tariff Desirable characteristic of a tariff
	3 Explain flat rate, block rate, two part and maximum demand tariff.
	4 Solve Problems
11TH	1 Numericals Practice
	2 Revision
	3 Numericals Practice
	4 Tutorial Class
12TH	1 Introduction to Substations
	2 Layout of LT, HT and EHT substation.
	3 Earthing of Substation
	4 Transmission and distribution lines of Substation
13TH	1 Numericals Practice
	2 Revision of previous topics
	3 Revision of previous topics
	4 Revision of previous topics
14TH	1 Revision of previous topics
	2 Revision of previous topics
	3 Revision of previous topics
	4 Revision of previous topics
15TH	1 Sample Paper Practice
	2 Sample Paper Practice
	3 Sample Paper Practice
	4 Sample Paper Practice


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for Monalisa Pani
 Lect. (Electrical)

LESSON PLAN 2022(SUMMER)

Discipline: Electrical Engg.	Semester:4th Sem	Name of the Teaching Faculty: Mrs. Jayashree Mohanty,Sr. Lect. Electrical Engg	
Subject: electrical machine lab-1	Practical Periods: 6P/Week	Semester From Date:-10.03.22 to Date:- 10.06.22	No. of Weeks:15
1st Week	1st	Introduction	
2nd Week	1st	Introduction	
	2nd	Introduction	
	3rd	Introduction	
3rd Week	1st	Introduction	
	2nd	Identification of different terminals of a DC machine by test lamp method and multi-meter method & to measure insulation resistance by megger (Gr-2)	
	3rd	Identification of different terminals of a DC machine by test lamp method and multi-meter method & to measure insulation resistance by megger (Gr-1)	
	4th	Dimensional and material study of various parts of a DC machine (Gr-2)	
4th Week	1st	Dimensional and material study of various parts of a DC machine (Gr-1)	
	2nd	Plot OCC of a DC shunt generator at constant speed and determine critical resistance from the graph. (Gr-2)	
	3rd	Plot OCC of a DC shunt generator at constant speed and determine critical resistance from the graph. (Gr-1)	
6th Week	1st	Plot External Characteristics of a DC shunt generator at constant speed.(Gr-2)	
	2nd	Plot External Characteristics of a DC shunt generator at constant speed.(Gr-1)	
	3rd	Study of Three point starter, connect and run a DC shunt motor & measure the no load current.(Gr-2)	
	4th	Study of Three point starter, connect and run a DC shunt motor & measure the no load current. .(Gr-1)	

7th Week	1st	Study of Four point starter, connect and run a DC compound motor & measure no load current. (Gr-2)
	2nd	Study of Four point starter, connect and run a DC compound motor & measure no load current. (Gr-1)
	3rd	Control the speed of a DC shunt motor by field flux control method & armature voltage control method (Gr-2)
8th Week	1st	Control the speed of a DC shunt motor by field flux control method & armature voltage control method (Gr-1)
	2nd	Determine the armature current vs. speed characteristic of a DC motor (Gr-2)
	3rd	Determine the armature current vs. speed characteristic of a DC motor (Gr-1)
	4th	Determine the efficiency of a DC machine by brake test method. (Gr-2)
9th Week	1st	Determine the efficiency of a DC machine by brake test method. (Gr-1)
	2nd	Identification of terminals, determination of voltage transformation ratio of a single phase transformer (Gr-2)
	3rd	Identification of terminals, determination of voltage transformation ratio of a single phase transformer (Gr-1)
	4th	Perform OC Test and SC test of a single phase transformer (Gr-2)
10th Week	1st	Perform OC Test and SC test of a single phase transformer (Gr-1)
	2nd	Determine the voltage regulation of a single phase transformer at different loads (Gr-2)
	3rd	Determine the voltage regulation of a single phase transformer at different loads (Gr-1)
11th Week	1st	Practice of all previous experiments
	2nd	Practice of all previous experiments
	3rd	Practice of all previous experiments
	4th	Practice of all previous experiments
12th Week	1st	Practice of all previous experiments
	2nd	Practice of all previous experiments
	3rd	Practice of all previous experiments

13th Week	1st	Practice of all previous experiments
	2nd	Practice of all previous experiments
	3rd	Practice of all previous experiments
	4th	Practice of all previous experiments
14th Week	1st	Practice of all previous experiments
15th Week	1st	Practice of all previous experiments
	2nd	Practice of all previous experiments
16th Week	1st	Practice of all previous experiments
	2nd	Practice of all previous experiments
	3rd	Practice of all previous experiments
	4th	Practice of all previous experiments


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 (Sr. Lect. Elec)

LESSON PLAN 2022(SUMMER)		
Discipline: Electrical Engg.	Semester:4th	Name of the Teaching Faculty: Sri Sudhansu Sekhar Munda, Lect. ETC Engg Sri Khageswar Bhol, Lab Asst. ETC Engg
Subject: Analog Electronics Lab	Lab Periods: 3P/Week	Semester From Date to Date: 10.3.22 to 10.6.22 No. of Weeks: 15 week
2nd Week March	1st	Exp.1:-Determine the input and output Characteristics of CE & CB transistor configuration
	2nd	Exp.1:-Determine the input and output Characteristics of CE & CB transistor configuration
3rd Week March	1st	Exp.2:-Determine Drain & Transfer Characteristics of JFET
	2nd	Exp.2:-Determine Drain & Transfer Characteristics of JFET
4th Week March	1st	Exp.3:-Construct Bridge Rectifier using different filter circuit and to determine Ripple factor & analyze wave form with filter & without filter.
	2nd	Exp.3:-Construct Bridge Rectifier using different filter circuit and to determine Ripple factor & analyze wave form with filter & without filter.
1st week April	1st	Exp.4:-Construct Bridge Rectifier using different filter and to determine Ripple factor.
	2nd	Exp.4:-Construct Bridge Rectifier using different filter and to determine Ripple factor.
2nd week April	1st	Exp.5:-Construct & test the regulator using Zener diode
	2nd	Exp.5:-Construct & test the regulator using Zener diode
3rd week April	1st	Exp.6:-Construct different types of biasing circuit and analyze the wave form (i) Fixed bias (ii) Emitter bias (iii) Voltage divider bias
	2nd	Exp.6:-Construct different types of biasing circuit and analyze the wave form (i) Fixed bias (ii) Emitter bias (iii) Voltage divider bias
4th week April	1st	Exp.7:-Study the single stage CE amplifier & find Gain
	2nd	Exp.7:-Study the single stage CE amplifier & find Gain
5th week April	1st	Exp.8:-Study multi stage R-C coupled amplifier & to determine frequency- response & gain.
	2nd	Exp.8:-Study multi stage R-C coupled amplifier & to determine frequency- response & gain.
1st week May	1st	Exp.9:-Construct & Find the gain (i) Class A. Amplifier (ii) Class B. Amplifier (iii) Class C Tuned Amplifier
	2nd	Exp.9:-Construct & Find the gain (i) Class A. Amplifier (ii) Class B. Amplifier (iii) Class C Tuned Amplifier
2nd week May	1st	Exp.10:-Construct & Find the gain (i) Class A. Amplifier (ii) Class B. Amplifier (iii) Class C Tuned Amplifier
	2nd	Exp.10:-Construct & Find the gain (i) Class A. Amplifier (ii) Class B. Amplifier (iii) Class C Tuned Amplifier

3rd week May	1st	Exp.10:-Construct & test push pull amplifier & observe the wave form
	2nd	Exp.10:-Construct & test push pull amplifier & observe the wave form
4th week May	1st	Exp.12:-Construct & calculate the frequency of (i) Hartly Oscillator (ii) Collpit's Oscillator (iii) Wein Bridge Oscillator (iv) R-C phase shift oscillator and draw wave form & calculate the frequency
	2nd	Exp.12:-Construct & calculate the frequency of (i) Hartly Oscillator (ii) Collpit's Oscillator (iii) Wein Bridge Oscillator (iv) R-C phase shift oscillator and draw wave form & calculate the frequency
5th week May	1st	Exp.13:-Construct & calculate the frequency of (i) Hartly Oscillator (ii) Collpit's Oscillator (iii) Wein Bridge Oscillator (iv) R-C phase shift oscillator and draw wave form & calculate the frequency
	2nd	Exp.13:-Construct & calculate the frequency of (i) Hartly Oscillator (ii) Collpit's Oscillator (iii) Wein Bridge Oscillator (iv) R-C phase shift oscillator and draw wave form & calculate the frequency
1st week June	1st	Exp.14:-Construct & Test Differentiator and Integrator using R-C Circuit
	2nd	Exp.14:-Construct & Test Differentiator and Integrator using R-C Circuit
2nd week June	1st	Exp.15:-Study Multivibrator (Astable, Bistable, Monstable) Circuit & Draw its Wave forms
	2nd	Exp.15:-Study Multivibrator (Astable, Bistable, Monstable) Circuit & Draw its Wave forms

Sudhansu Sekhar Munde
Lect in ETC

Signature of Faculty


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10.3.22

LESSON PALN 2022(SUMMER)

Discipline: Electrical Engg.	Semester:4th	Name of the Teaching Faculty: Sri Sudhansu Sekhar Munda,Lect. ETC Engg Sri Khageswar Bhol,Lab Asst. ETC Engg
Subject:Simulation And Prcatice MATLAB	Lab Periods: 3P/Week	Semester From Date to Date:- 16.3.22 to 16.6.22 No. of Weeks:15week
2nd Week March	1st	Exp.1:-1.1. Functions and operation using variables and arrays.
	2nd	Exp.1:-1.1. Functions and operation using variables and arrays.
3rd Week March	1st	Exp.2:-To learn algebraic, trigonometric and exponential manipulation.
	2nd	Exp.2:-To learn algebraic, trigonometric and exponential manipulation.
4th Week March	1st	Exp.3:-To learn Arithmetic, Relational and Logic operator
	2nd	Exp.3:-To learn Arithmetic, Relational and Logic operator
1st week April	1st	Exp.4:-Matrix formation and its manipulation.
	2nd	Exp.4:-Matrix formation and its manipulation.
2nd week April	1st	Exp.5:-Vector manipulation:
	2nd	Exp.5:-Vector manipulation:
3rd week April	1st	Exp.6:-Use of linspace to create vectors. To create, add and multiply vectors
	2nd	Exp.6:-Use of linspace to create vectors. To create, add and multiply vectors
4th week April	1st	Exp.7:-Use of sin and sqrt functions with vector arguments.
	2nd	Exp.7:-Use of sin and sqrt functions with vector arguments.
5th week April	1st	Exp.8:-Plotting: Two dimensional Plots and sub plots .
	2nd	Exp.8:-Plotting: Two dimensional Plots and sub plots .
1st week May	1st	Exp.9:Label the plot and printing.
	2nd	Exp.9:-Label the plot and printing.
	1st	Exp.10:--Write and execute a file to plot a circle, impulse, step, ramp, sine and cosine functions.

2nd week May	2nd	Exp10:-Write and execute a file to plot a circle, impulse, step, ramp, sine and cosine functions.
3rd week May	1st	Exp.11:-Use of Commonly used blocks, Math operation block and Display block from SIMULINK library
	2nd	Exp.11:-Use of Commonly used blocks, Math operation block and Display block from SIMULINK library
4th week May	1st	Exp.12:-Use of logical and relational operator block.
	2nd	Exp.12:-Use of logical and relational operator block.
5th week May	1st	Exp.13:-Use of Sim-Power system block to use Electrical sources, elements and Power electronics devices.
	2nd	Exp.13:-Use of Sim-Power system block to use Electrical sources, elements and Power electronics devices.
1st week June	1st	Exp.14:-SIMULATION: Verification of Network theorems. Simulation of a half wave uncontrolled rectifier
	2nd	Exp.14:-SIMULATION: Verification of Network theorems. Simulation of a half wave uncontrolled rectifier
2nd week June	1st	Exp.15:-Simulation of 1-phase full bridge controlled rectifier. Simulation of step-down chopper.
	2nd	Exp.15:-Simulation of 1-phase full bridge controlled rectifier. Simulation of step-down chopper.

Sudhansu Sekhoo Munda
Lectr ETC

Signature of Faculty

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LESSON PLAN 2022

Discipline Electrical	Semester: 4 th	Name of the Teaching Faculty: Swetaleena Dehury
Subject: ED	No of day/week class Alloted: 6p/week	Semester from: 10.1.22 to 10.6.22 No of week: 15 week
Week	class Day	Theory Topics
1 st	(1-3) (4-6)	Introduction to Electrical Drawing Draw sheet layout, Title block
2 nd	(1-3) (4-6)	Draw Electrical symbol Electrical symbol
3 rd	(1-3) (4-6)	Introduction to starter 3 point DC motor starter
4 th	(1-3) (4-6)	4 point starter DOL starter
5 th	(1-3) (4-6)	Star Delta starter Auto transformer starter
6 th	(1-3) (4-6)	Rotor resistance starter Draw DC MLC parts
7 th	(1-3) (4-6)	Pole with pole shoes Commutator


Week	Class Day	Theory Topics.
8 th	(1-3) (4-6)	Armature DC armature winding (simple lap winding)
9 th	(1-3)	simple wave winding
10 th	(1-6) (1-3) (4-6)	stepped core type plane shell type
11 th	(1-3) (4-6)	Earthing Draw plate Earthing Draw pipe Earthing
12 th	(1-3) (4-6)	Draw single line diagram of 32/11 KV distribution substation 11/0.4 KV distribution substation
13 th	(1-3) (4-6)	Draw Electrical symbol using software Draw DC M/C parts using software
14 th	(1-3) (4-6)	Draw AC M/C parts using software Draw AC M/C parts
15 th	(1-3) (4-6)	Draw electrical layout of diagram of Electrical installation of a building Revision classes
<p>Pr. Govt. A.</p>		<p>Saketaleena Debunty (Lecturer in Electrical)</p>


LESSON PLAN 2022(SUMMER)

Discipline: Electrical Engg.		Semester:6th Sem	Name of the Teaching Faculty: Mrs. Jayashree Mohanty, Sr. Lect. Electrical Engg
Subject: ELECTRICAL INSTALLATION AND ESTIMATING		Theory periods: 5P/Week	Semester From Date:-10.03.22 to Date:-10.06.22 No. of Weeks:16
1st Week	1	1st	INDIAN ELECTRICITY RULES: Definitions, Ampere, Apparatus, Accessible, Bare, cable, circuit, circuit breaker, conductor voltage (low, medium, high, EH), live, dead, cut-out
	2	2nd	conduit, system, danger, Installation, earthing system, span, volt, switch gear, etc.
2nd Week	3	1st	General safety precautions, rule 29,30, 31, 32, 33, 34, 35, 36, 40, 41, 43, 44, 45,46
	4	2nd	General conditions relating to supply and use of energy : rule 47, 48, 49, 50, 51, 54, 55, 56, 57, 58, 59,
	5	3rd	Rule 60, 61, 62, 63, 64, 65, 66, 67, 68, 70.
3rd Week	6	1st	OH lines : Rule 74, 75, 76, 77, 78, 79, 80, 86, 87, 88, 89, 90, 91
	7	2nd	ELECTRICAL INSTALLATIONS: Electrical installations, domestics, industrial, Wiring System, Internal distribution of Electrical Energy. Methods of wiring,
	8	3rd	systems of wiring
	9	4th	Wire and cable, conductor materials used in cables, insulating materials mechanical protection.
	10	5th	Types of cables used in internal wiring, multi-stranded cables, voltage grinding of cables, general specifications of cables.
4th Week	11	1st	Main switch and distribution boards, conduits, conduit accessories and fittings, lighting accessories and fittings
	12	2nd	Fuses, important definitions, determination of size of fuse – wire, fuse units.
	13	3rd	Earthing conductor, earthing, IS specifications regarding earthing of electrical installations, points to be earthed.
5th Week	14	1st	Determination of size of earth wire and earth plate for domestic and industrial installations. Material required for GI pipe earthing
	15	2nd	Aspects of good lighting services. Types of lighting schemes,
6th Week	16	1st	design of lighting schemes, factory lighting,
	17	2nd	public lighting installations, street lighting,
	18	3rd	general rules for wiring, determination of number of points (light, fan, socket, outlets), determination of total load, determination of Number of sub-circuits
	19	4th	INTERNAL WIRING: Type of internal wiring, cleat wiring, CTS wiring, wooden casing capping, metal sheathed wiring, conduit wiring, their advantage and disadvantages comparison and applications
	20	5th	Prepare one estimate of materials required for CTS wiring for small domestic installation of one room and one verandah within 25 m2 with given light, fan & plug points. Calculation of current, circuit diagram. calculation of phase wire

7th Week	21	1st	calculation of Neutral wire and quantity of material required
	22	2nd	Prepare one estimate of materials required for conduit wiring for small domestic installation of one room and one verandha within 25 m ² with given light, fan & plug points. Calculation of current, circuit diagram.
	23	3rd	calculation of phase wire
	24	4th	calculation of Neutral wire and quantity of material required
	25	5th	Prepare one estimate of materials required for concealed wiring for domestic installation of two rooms and one latrine, bath, kitchen & verandah within 80m ² with given light, fan & plug points. Calculation of current, circuit diagram.
8th Week	26	1st	calculation of phase wire
	27	2nd	calculation of Neutral wire and quantity of material required
	28	3rd	Prepare one estimate of materials required for erection of conduit wiring to a small workshop installation about 30m ² and load within 10 KW. Calculation of current, circuit diagram.
	29	4th	calculation of phase wire
	30	5th	calculation of Neutral and earth wire and specifications of quantity of material required
9th Week	31	1st	Main components of overhead lines, line supports, factors Governing Height of pole, conductor materials, determination of size of conductor for overhead transmission line,
	32	2nd	cross arms, pole brackets and clamps, guys and stays, conductors configurations, spacing and clearances, span lengths, overhead line insulators, types of insulators,
	33	3rd	Lighting arresters, danger plates, anti-climbing devices, bird guards, beads of jumpers, jumpers, tee-offs, guarding of overhead lines.
	34	4th	Prepare an estimate of materials required for LT distribution line within load of 100 KW maximum and standard spans involving calculation of the size of conductor (from conductor chart), current carrying capacity and voltage regulation consideration using ACSR
	35	5th	overhead transmission line diagram, specifications of quantity of material required
10th Week	36	1st	specifications of quantity of material required
	37	2nd	Prepare an estimate of materials required for LT distribution line within load of 100 KW maximum and standard spans involving calculation of the size of conductor (from conductor chart), current carrying capacity and voltage regulation consideration using ACSR
	38	3rd	overhead transmission line diagram, specifications of quantity of material required
	39	4th	specifications of quantity of material required

11th Week	40	1st	Prepare an estimate of materials required for HT distribution line (11 KV) within 2 km and load of 2000 KVA maximum and standard spans involving calculation of the size of conductor (from conductor chart), current carrying capacity and voltage regulation of the size of conductor (from conductor chart), current carrying capacity and voltage regulation consider action using ACSR
	41	2nd	overhead transmission line diagram, specifications of quantity of material required
	42	3rd	specifications of quantity of material required
	43	4th	OVER HEAD SERVICE LINES: Components of service lines, service line (cables and conductors), bearer wire, lacing rod. Ariel fuse, service support, energy box and meters etc.
	44	5th	Prepare and estimate for providing single phase supply of load of 5 KW (light, fan, socket) to a single stored residential building. Service line diagram, Calculation of current, main switch etc.
12th Week	45	1st	specifications of quantity of material required
	46	2nd	Prepare and estimate for providing single phase supply load of 3KW to each floor of a double stored building having separate energy meter. Service line diagram. Calculation of current, main switch etc.
	47	3rd	specifications of quantity of material required
	48	4th	specifications of quantity of material required
13th Week	49	1st	Prepare one estimate of materials required for service connection to a factory building with load within 15 KW using insulated wire. Calculation of current, main switch etc.
	50	2nd	specifications of quantity of material required
	51	3rd	specifications of quantity of material required
	52	4th	Prepare one estimate of materials required for service connection to a factory building with load within 15 KW using bare conductor and insulated wire combined. Calculation of current, main switch etc.
	53	5th	ESTIMATING FOR DISTRIBUTION SUBSTATIONS: Prepare one materials estimate for following types of transformer substations, Pole mounted substation introduction
14th Week	54	1st	diagram, calculation and specifications of quantity of material required
15th Week	55	1st	specifications of quantity of material required
	56	2nd	Plinth Mounted substation. Introduction
	57	3rd	diagram, calculation and specifications of quantity of material required
16th Week	58	1st	specifications of quantity of material required
	59	2nd	Tutorial
	60	3rd	Tutorial
	61	4th	Tutorial
	62	5th	Tutorial


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 (Sr. Lect Electrical)

Discipline: ELECTRICAL	Semester: 6 TH	Name of the Teaching Faculty: MONALISA PANI
Subject: SGPD	No. of Days/per week class allotted:05	Semester From Date: 14.03.22 To Date: 10.06.22 No. of Weeks: 15
Week	Class Day	Theory/Practical Topics
1 st	01	Essential Features of switchgear.Switchgear Equipment
	02	Switchgear Equipment.
	03	Bus-Bar Arrangement..
	04	Switchgear Accommodation.
	05	Revision tutorial
2 nd	01	Short Circuit.
	02	Faults in a power system.
	03	Symmetrical faults on 3-phase syste
	04	Limitation of fault current.
	05	Revision tutorial
3 rd	01	Percentage Reactance..
	02	Percentage Reactance and Base KVA.
	03	Short – circuit KVA..
	04	Reactor control of short circuit currents
	05	Revision tutorial
4 th	01	Location of reactors.
	02	Steps for symmetrical Fault calculations
	03	Solve numerical problems on symmetrical fault..
	04	Solve numerical problems on symmetrical fault.
	05	Revision tutorial
5 th	01	Desirable characteristics of fuse element.
	02	Fuse Element materials.
	03	Types of Fuses and important terms used for fuses.
	04	Low and High voltage fuses
	05	Revision tutorial
6 th	01	Current carrying capacity of fuse element
	02	Difference Between a Fuse and Circuit Breaker.
	03	Definition and principle of Circuit Breaker. Arc phenomenon and principle of Arc Extinction.
	04	Methods of Arc Extinction. Definitions of Arc voltage, Re-striking voltage and Recovery voltage.
	05	Revision tutorial
7 th	01	Classification of circuit Breakers. Oil circuit Breaker and its classification.
	02	Plain brake oil circuit breaker. Arc control oil circuit breaker.
	03	Low oil circuit breaker. Maintenance of oil circuit breaker.
	04	Air-Blast circuit breaker and its classification.
	05	Revision tutorial
8 th	01	Sulphur Hexa-fluoride (SF6) circuit breaker.
	02	Vacuum circuit breakers.

	03	Switchgear component. Problems of circuit interruption.
	04	Resistance switching. Circuit Breaker Rating.
	05	Revision tutorial
9 th	01	Definition of Protective Relay. Fundamental requirement of protective relay.
	02	Basic Relay operation Electromagnetic Attraction type Induction type.
	03	Definition of following important terms. . Pick-up current. Current setting. Plug setting Multiplier. Time setting Multiplier
	04	Classification of functional relays Induction type over current relay (Non-directional)
	05	Revision tutorial
10 th	01	Induction type directional power relay
	02	Induction type directional over current relay
	03	Differential relay Current differential relay Voltage balance differential relay.
	04	Types of protection
	05	Revision tutorial
11 th	01	Protection of alternator. Differential protection of alternators.
	02	Balanced earth fault protection.
	03	Protection systems for transformer, Buchholz relay
	04	Protection of Bus bar. Protection of Transmission line
	05	Revision tutorial
12 th	01	Different pilot wire protection (Merz-price voltage Balance system)
	02	Explain protection of feeder by over current and earth fault relay.
	03	Voltage surge and causes of over voltage.
	04	Internal cause of over voltage.
	05	Revision tutorial
13 th	01	External cause of over voltage (lightning)
	02	Mechanism of lightning discharge.
	03	Types of lightning strokes.
	04	Harmful effect of lightning
	05	Revision tutorial
14 th	01	Lightning arresters and Type of lightning Arresters. Rod-gap lightning arrester. Horn-gap arrester. Valve type arrester.
	02	Surge Absorber
	03	Advantage of static relay.
	04	Advantage of static relay.
	05	Revision tutorial
15 th	01	Instantaneous over current relay.
	02	Instantaneous over current relay.
	03	Principle of IDMT relay.
	04	Principle of IDMT relay.
	05	Revision tutorial


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for Monalisa Pami
 Lect. (Electrical)
 08.13.22

LESSON PLAN 2022(Summer)

Discipline: Electrical	Semester :6th Sem	Name of the Teaching faculty: Sudhansu Sekhar Munda Lect in E & TC
Subject: Control System .	No. of days/per week class alloted: 5p(55 Minutes)/week	Semester From date: 10.3.22 to Date: 10.6.22 No. Of Weeks: 15 week
2nd week of March	1st	FUNDAMENTAL OF CONTROL SYSTEM : 1.1. Classification of Control system
	2nd	1.2. Open loop system & Closed loop system and its comparison
	3rd	1.3. Effects of Feed back
	4th	1.4. Standard test Signals(Step, Ramp, Parabolic, Impulse Functions)
	5th	1.5. Servomechanism
3rd week of March	1st	2. MATHEMATICAL MODEL OF A SYSTEM: 2.1. Transfer Function & Impulse response
	2nd	2.2. Properties, Advantages & Disadvantages of Transfer Function
	3rd	2.3. Poles & Zeroes of transfer Function
	4th	2.4. Simple problems of transfer function of network.
	5th	2.5. Mathematical modeling of Electrical Systems(R, L, C, Analogous systems)
4th week of March	1st	3. CONTROL SYSTEM COMPONENTS: 3.1. Components of Control System
	2nd	3.2. Gyroscope, Synchros, Tachometer.
	3rd	DC servomotors, Ac Servomotors
	4th	4. BLOCK DIAGRAM ALGEBRA & SIGNAL FLOW GRAPHS:
	5th	4.1. Definition: Basic Elements of Block Diagram
1st week of April	1st	4.2. Canonical Form of Closed loop Systems
	2nd	4.3. Rules for Block diagram reduction
	3rd	4.4. Procedure for of Reduction of Block Diagram
	4th	4.5. Simple Problem for equivalent transfer function
	5th	4.6. Basic Definition in Signal Flow Graph & properties
2nd week of April	1st	4.7. Construction of Signal Flow graph from Block diagram
	2nd	4.8. Mason's Gain formula
	3rd	4.9. Simple problems in Signal flow graph for network
	4th	5. TIME RESPONSE ANALYSIS.
	5th	5.1 Time response of control system.
3rd week of April	1st	5.2 Standard Test signal.
	2nd	5.2.1. Step signal,
	3rd	5.2.2. Ramp Signal
	4th	5.2.3. Parabolic Signal
	5th	5.2.4. Impulse Signal
4th week of April	1st	5.3 Time Response of first order system with
	2nd	5.3.1. Unit step response
	3rd	5.3.2. Unit impulse response.
	4th	5.4 Time response of second order system to the unit step input.

5th week of April	5th	5.4.1. Time response specification.
	1st	5.4.2. Derivation of expression for rise time, peak time, peak overshoot, settling time and steady state error.
	2nd	5.4.3. Steady state error and error constants.
	3rd	5.5 Types of control system.[Steady state errors in Type-0, system]
	4th	5.5 Types of control system.[Steady state errors in Type-1 system]
1st week of May	5th	5.5 Types of control system.[Steady state errors in Type-2 system]
	1st	5.6 Effect of adding poles and zero to transfer function.
	2nd	5.7 Response with P, PI, PD and PID controller.
	3rd	6. ANALYSIS OF STABILITY BY ROOT LOCUS TECHNIQUE.
	4th	6.1 Root locus concept.
2nd week of May	5th	6.1 Root locus concept
	1st	6.2 Construction of root loci.
	2nd	6.3 Rules for construction of the root locus.
	3rd	6.4 Effect of adding poles and zeros to $G(s)$ and $H(s)$.
	4th	7. FREQUENCY RESPONSE ANALYSIS.
3rd week of May	5th	7.1 Correlation between time response and frequency response.
	1st	7.2 Polar plots.
	2nd	7.3 Bode plots
	3rd	7.4 All pass and minimum phase system.
	4th	7.5 Computation of Gain margin and phase margin
4th week of May	5th	7.6 Log magnitude versus phase plot.
	1st	8. NYQUIST PLOT
	2nd	8.1 Principle of argument.
	3rd	8.2 Nyquist stability criterion.
	4th	8.2 Nyquist stability criterion.
1st week of June	5th	8.3 Nyquist stability criterion applied to inverse polar plot
	1st	8.4 Effect of addition of poles and zeros to $G(S)$ $H(S)$ on the shape of Niquist plot.
	2nd	8.5 Assessment of relative stability.
	3rd	8.6 Constant M and N circle
	4th	8.7 Nicholas chart.

Sudhansu Sekhar Munda
Lect in ETC

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10.3.22

LESSON PLAN 2022 (SUMMER)

Discipline : Electrical	Semester : 6 th	Name of the Teaching Faculty : Swetabeena Dehury.
Subject : REC	No of days/ per week class allotted : 5 p/week	Semester from : 10.03.22 to 10.06.22 No of week : 15 week
Week	Class Day	Theory Topics
1 st	01	Introduction to Renewable Energy
	02	Environmental consequence of fossil fuel use.
	03	Importance of Renewable source of Energy
	04	Sustainable Design & Development
	05	Tutorial classes
2 nd	01	Types of RE sources
	02	Limitation of RE sources
	03	Present Indian Energy scenario of conventional & RE sources.
	04	International energy scenario.
	05	Tutorial classes.
3 rd	01	Solar Energy
	02	Solar photovoltaic system - operating principle
	03	Photovoltaic cell concepts.
	04	Cell, Module, array
	05	Tutorial classes
4 th	01	series & parallel connection
	02	Maximum power point Tracking (MPPT)
	03	Classification of Energy sources
	04	Extra terrestrial & terrestrial Radiation

Week	Class Day	Theory Topics
5 th	00	Tutorial classes
	01	Azimuth Angle, Zenith Angle, Hour Angle
	02	Irradiance, Solar constant
	03	Solar collectors - Types
	04	Solar collectors characteristics
6 th	05	Tutorial classes
	01	Application of photovoltaic-battery charger.
	02	Domestic lighting, street lighting
	03	Water pumping, Solar cooker,
	04	Solar pond.
7 th	05	Tutorial classes
	01	Introduction to wind Energy
	02	Wind Energy conversion
	03	Types of wind turbines
	04	Aerodynamics of wind Rotors
8 th	05	Tutorial classes
	01	Wind turbine control system ? Conversion to electrical power
	02	Induction & Synchronous generators
	03	Grid connected & self excited induction generator operation
	04	Constant voltage & constant frequency generation with power electronic control
	05	Tutorial classes

Week	Class Day	Theory Topics
9 th	01	Single & double output system
	02	Characteristics of wind power plant
	03	Energy from Biomass
	04	Biomass as Renewable Energy Sources
	05	Tutorial classes.
10 th	01	Types of Biomass Fuels - solid, Liquid & Gas
	02	Combustion & Fermentation
	03	Anaerobic digestion
	04	Types of biogas digester
	05	Tutorial classes
11 th	01	Wood gasifier
	02	Pyrolysis
	03	Application of Biogas
	04	Application of Biodiesel
	05	Tutorial classes
12 th	01	Introduction to other energy sources
	02	Tidal Energy
	03	Energy from the tides
	04	Barrage tidal power system
	05	Tutorial classes
13 th	01	Non - Barrage tidal power system
	02	Ocean Thermal Energy conversion (OTEC)

Week	Class Day	Theory Topics
14 th	03	Introduction to Geothermal Energy
	04	Classification of geothermal energy
	05	Tutorial classes
	01	Introduction to Hybrid Energy system
	02	Need for Hybrid system
15 th	03	Diesel-pv system
	04	Wind - pv system
	05	Tutorial classes
	01	Microhydel - P V
	02	Electric vehicles
	03	Hybrid electric vehicles
	04	Application of ^{Electric} vehicles
	05	Tutorial classes

Smitaleena Dehury
(Lect. in Electrical)


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05-3-22

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Discipline: ELECTRICAL	Semester: 6TH	Name of the Teaching Faculty: MONALISA PANI
Subject: ELECTRICAL WORKS PRACTICE	No. of Days/per week class allotted: 6P/WEEK (GR-1 AND GR-2)	Semester From Date: 14.03.22 To Date: 10.06.22 No. of Weeks: 15
Week	Class Day	Theory/Practical Topics
1 st	01	Identification of single core (SC), twin core (TC), three cores (3c), four cores (4c); copper and aluminum PVC, VIR & Weather proof (WP) wire.
	02	Prepare Britannia T- joint.
	03	Prepare Married joint.
2 nd	01	Cutting copper and aluminum cable and crimping lug to them from 4mm ² to 25mm ² , cross section.
	02	Cutting copper and aluminum cable and crimping lug to them from 4mm ² to 25mm ² , cross section.
	03	Cutting copper and aluminum cable and crimping lug to them from 4mm ² to 25mm ² , cross section.
3 rd	01	Connection and testing of fluorescent tube light– measure inductance, Lux/ lumens (intensity of illumination) in each case-prepare lux table .
	02	Connection and testing of high pressure M.V. lamp– measure inductance, Lux/ lumens (intensity of illumination) in each case-prepare lux table .
	03	Connection and testing of sodium vapor lamp– measure inductance, Lux/ lumens (intensity of illumination) in each case-prepare lux table .
4 th	01	Connection and testing of M.H lamp – measure inductance, Lux/ lumens (intensity of illumination) In each case-prepare lux table .
	02	Connection and testing of CFL – measure inductance, Lux/ lumens (intensity of illumination) in each case-prepare lux table .
	03	Connection and testing of and latest model lamps – measure inductance, Lux/ lumens (intensity of illumination) in each case-prepare lux table .
5 th	01	Study battery charger and make charging of lead acid battery (record charging voltage, current and specific gravity)
	02	Study battery charger and make charging of lead acid battery (record charging voltage, current and specific gravity)
	03	Study battery charger and make charging of lead acid battery (record charging voltage, current and specific gravity)
6 th	01	Erection of residential building wiring by CTS wiring system using main two points
	02	Erection of residential building wiring by conduit wiring system using main two points.
	03	Test wiring installation by test lamp method and a meggar.
7 th	01	Fault finding & repairing of Fan – prepare an inventory list of parts.
	02	Fault finding & repairing of Fan – prepare an inventory list of parts.
	03	Fault finding & repairing of Fan – prepare an inventory list of parts.

8 th	01	Find out fault of D.C. generator, repair and test it to run.
	02	Find out fault of D.C. generator, repair and test it to run.
	03	Find out fault of D.C. generator, repair and test it to run.
9 th	01	Find out fault of D.C. motor starters.
	02	Find out fault of A.C motor starters.
	03	Prepare an inventory list of parts used in different starters.
10 th	01	Use crimping tools to lug sockets on L.T. & H.T aluminum cable from 10mm ² to 50mm ² .
	02	Use crimping tools to lug sockets on L.T. & H.T aluminum cable from 10mm ² to 50mm ² .
	03	Use crimping tools to lug sockets on L.T. & H.T aluminum cable from 10mm ² to 50mm ² .
11 th	01	Dismantle, over haul and assemble a single phase induction motor. Test and run it. – prepare an inventory list.
	02	Dismantle, over haul and assemble a single phase induction motor. Test and run it. – prepare an inventory list.
	03	Dismantle, over haul and assemble a single phase induction motor. Test and run it. – prepare an inventory list.
12 th	01	Dismantle over haul and assemble a three phase squirrel cage and phase wound motor. Test and run them.
	02	Dismantle over haul and assemble a three phase squirrel cage and phase wound motor. Test and run them.
	03	Dismantle over haul and assemble a three phase squirrel cage and phase wound motor. Test and run them.
13 th	01	Overhaul a single phase / 3 phase variac.
	02	Overhaul a single phase / 3 phase variac.
	03	Overhaul a single phase / 3 phase variac.
14 th	01	Practice of all previous experiment.
	02	Practice of all previous experiment.
	03	Practice of all previous experiment.
15 th	01	Practice of all previous experiment.
	02	Practice of all previous experiment.
	03	Practice of all previous experiment.


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Monalisa Pani
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 05/03/22