



# GOVERNMENT POLYTECHNIC KORAPUT

## Pr1.ELECTRICAL WORKSHOP PRACTICE

Name of the Course: Diploma in Electrical Engineering			
Faculty: Mahesh Kumar Biswal			
Course code:	Pr1	Semester	6 <sup>th</sup>
Total Period:	90	Date- From -14 /02/2023	to-23/05/2023
Theory Periods:	6P/week	Examination	3hrs
		Term work	25
Maximum marks:	150	End Semester Examination:	100

### DEPARTMENT OF ELECTRICAL

#### Vision:-

To create competent and industry ready Electrical diploma engineers with professional and social values to meet future challenges.

#### Mission:-

- To prepare diploma holders through “qualitative competency based education system” to compete with national requirement along with core values
- To produce dynamic Electrical Engineers to serve the society and industry .
- To develop leadership qualities, communication skills, critical thinking and attitude for Lifelong learning.

#### Program educational objectives:-

PEO1:	Apply technical knowledge and skills learned in the field of Electrical Engineering to excel in professional and/or higher education.
PEO2:	to provide students an excellent academic environment and make them aware the needs of Society and Industry to become a successful Professional/Entrepreneur.
PEO3:	To engage in lifelong learning, career enhancement to adopt emerging technologies

#### Course outcomes:-

Co1	To acquire knowledge of various tools, machine, devices used in engineering fields.
Co2	Explore the knowledge of carrying out various operations in electrical engineering workshop.
Co3	Analyze for fault finding, repairing of DC and AC machine.
Co4	Develop skill in basic engineering practice for creating object from raw material.



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## LESSONPLAN

Week	Day	Theorytopic
1 <sup>st</sup>	1 <sup>st</sup>	Identification of single core(SC), twin core(TC), three cores(3c), four cores(4c); copper and aluminum PVC, VIR & Weather proof (WP) wire and prepare Britannia T-joint and Married joint
	2 <sup>nd</sup>	do
	3 <sup>rd</sup>	do
	4 <sup>th</sup>	do.
	5 <sup>TH</sup>	do
	6 <sup>th</sup>	do
2 <sup>nd</sup>	1 <sup>st</sup>	Cutting copper and aluminum cable and crimping lug to them from 2.5mm <sup>2</sup> to 6 mm <sup>2</sup> cross section
	2 <sup>nd</sup>	do
	3 <sup>rd</sup>	do
	4 <sup>th</sup>	do
	5 <sup>th</sup>	do
	6 <sup>th</sup>	do
3 <sup>rd</sup>	1 <sup>st</sup>	Connection and testing of fluorescent tube light, high pressure M.V. lamp, sodium vapor lamp, M.H lamp, CFL and latest model lamps— measure inductance, Lux/lumens (intensity of illumination) in each case— prepare lux table
	2 <sup>nd</sup>	do
	3 <sup>rd</sup>	do
	4 <sup>th</sup>	do
	5 <sup>th</sup>	do
	6 <sup>th</sup>	do
4 <sup>th</sup>	1 <sup>st</sup>	Study battery charger and make charging of lead acid battery (record charging voltage, current and specific gravity).
	2 <sup>nd</sup>	do
	3 <sup>rd</sup>	do
	4 <sup>th</sup>	do
	5 <sup>th</sup>	do
	6 <sup>th</sup>	do
5 <sup>th</sup>	1 <sup>st</sup>	Erection of residential building wiring by CTS and conduit wiring system using main two points and test installation by test lamp method and a meggar
	2 <sup>nd</sup>	Do
	3 <sup>rd</sup>	do
	4 <sup>th</sup>	do
	5 <sup>th</sup>	do
	6 <sup>th</sup>	do
6 <sup>th</sup>	1 <sup>st</sup>	Fault finding & repairing of Ceiling Fan—prepare an inventory list of parts.
	2 <sup>nd</sup>	do
	3 <sup>rd</sup>	do
	4 <sup>th</sup>	do
	5 <sup>th</sup>	do
	6 <sup>th</sup>	do
7 <sup>th</sup>	1 <sup>st</sup>	Find out fault of D.C. generator, repair and test it to run
	2 <sup>nd</sup>	do





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	3 <sup>rd</sup>	do
	4 <sup>th</sup>	do
	5 <sup>th</sup>	do
	6 <sup>th</sup>	do
8 <sup>th</sup>	1 <sup>st</sup>	FindoutfaultofD.C.motorstartersandA.Cmotorstarter— prepareaninventorylistofpartsusedindifferentstarters
	2 <sup>nd</sup>	do
	3 <sup>rd</sup>	do
	4 <sup>th</sup>	do
	5 <sup>th</sup>	do
	6 <sup>th</sup>	do
9 <sup>th</sup>	1 <sup>st</sup>	Dismantle,overhaulandassembleasinglephaseinductionmotor.Testandrunit.— prepareaninventorylist
	2 <sup>nd</sup>	do
	3 <sup>rd</sup>	do
	4 <sup>th</sup>	do
	5 <sup>th</sup>	do
	6 <sup>th</sup>	do
10 <sup>th</sup>	1 <sup>st</sup>	Dismantleoverhaulandassembleathreephasesquirrelcageandphase woundmotor.Testand run them
	2 <sup>nd</sup>	do
	3 <sup>rd</sup>	do
	4 <sup>th</sup>	do
	5 <sup>th</sup>	do
	6 <sup>th</sup>	do
11 <sup>th</sup>	1 <sup>st</sup>	Overhaulasinglephaseand3-phase variac
	2 <sup>nd</sup>	do
	3 <sup>rd</sup>	do
	4 <sup>th</sup>	do
	5 <sup>th</sup>	do
	6 <sup>th</sup>	do
12 <sup>th</sup>	1 <sup>st</sup>	Revision of previous experiments
	2 <sup>nd</sup>	do
	3 <sup>rd</sup>	do
	4 <sup>th</sup>	do
	5 <sup>th</sup>	do
	6 <sup>th</sup>	Do
13 <sup>th</sup>	1 <sup>st</sup>	Revision of previous experiments
	2 <sup>nd</sup>	Do
	3 <sup>rd</sup>	do
	4 <sup>th</sup>	do
	5 <sup>th</sup>	do
	6 <sup>th</sup>	do
14 <sup>th</sup>	1 <sup>st</sup>	Revision of previous experiments
	2 <sup>nd</sup>	do
	3 <sup>rd</sup>	do



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	4 <sup>th</sup>	do
	5 <sup>th</sup>	do
	6 <sup>th</sup>	do
15 <sup>th</sup>	1 <sup>st</sup>	Revision of previous experiments
	2 <sup>nd</sup>	do
	3 <sup>rd</sup>	do
	4 <sup>th</sup>	do
	5 <sup>th</sup>	do
	6 <sup>th</sup>	do

*[Handwritten Signature]*  
13/02/23

Signature of HOD (electrical)

*Mahesh Kumar Bhandari*  
Signature of faculty 13/02/23