



GOVERNMENT POLYTECHNIC KORAPUT

Pr4.ELECTRICALDRAWING

NameoftheCourse:DiplomainElectricalEngineering			
Faculty:MaheshKumarBiswal			
Coursecode:	Pr4	Semester	4 th
TotalPeriod:	90	Date- From-> 14/02/2023	to- 23/05/2023
Theoryperiods:	6P/week	Examination	3hrs
		Termwork	25
Maximummarks:	125	EndSemesterExamination:	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	Acquireexperiencetodraw differenttypes of electrical symbols, AC and DCarmature windings.
Co2	Acquire experience to design, visualize and draw the sectional plan and elevation of different aspect of transformer structure.
Co3	Identify and draw the sectional plan and elevation of different type of DC machine winding.
Co4	To gain knowledge of layout of schematic representation of outdoor and indoor substations.





GOVERNMENT POLYTECHNIC KORAPUT

TOPIC WISE DISTRIBUTION OF PERIODS

Sl.No.	Topics	Periods
1.	Wiring Diagram of Starters	18
2.	Development of DC armature winding	18
3.	1 ϕ and 3 ϕ transformer	12
4.	Sketches of Earthing and LT and HT line	18
5.	Single line diagram substation	09
6.	AutoCAD practice	15
TOTAL		60

LESSON PLAN

Week	Day	Theory topic
1 st	1 st	WIRING DIAGRAM AND CONTROL CIRCUIT: 3 point D.C. motor starter
	2 nd	do
	3 rd	do
	4 th	4-point D.C. motor starter.
	5 th	do
	6 th	do
2 nd	1 st	DOL starter
	2 nd	do
	3 rd	do
	4 th	Star delta starter
	5 th	do
	6 th	do
3 rd	1 st	Auto Transformer Starter.
	2 nd	do
	3 rd	do
	4 th	Rotor resistance starter.
	5 th	do
	6 th	do
4 th	1 st	D.C.M/CPARTS: Pole with pole shoes.
	2 nd	do
	3 rd	do
	4 th	Commutator
	5 th	Do
	6 th	do
5 th	1 st	Armature
	2 nd	Do
	3 rd	do
	4 th	Simple lap 1 layer winding
	5 th	do

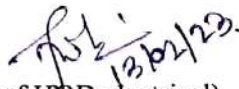
GOVERNMENT POLYTECHNIC KORAPUT

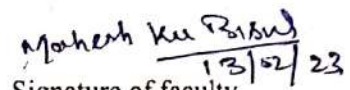
	6 th	do
6 th	1 st	Simplelapdoublelayerwinding
	2 nd	do
	3 rd	do
	4 th	Simplewave1 layerwinding
	5 th	do
	6 th	do
7 th	1 st	Simplewavedoublelayerwinding
	2 nd	do
	3 rd	do
	4 th	DRAW1-PHASE&3-PHASETRANSFORMER: singlephasesteppedcoretype transformer
	5 th	do
	6 th	do
8 th	1 st	Threephasesteppedcoretypetransformer
	2 nd	do
	3 rd	do
	4 th	singlephaseshelltypetransformer
	5 th	do
	6 th	do
9 th	1 st	Threephaseshelltypetransformers
	2 nd	do
	3 rd	do
	4 th	Earthing: Pipeearthing
	5 th	do
	6 th	do
10 th	1 st	Plateearthing
	2 nd	do
	3 rd	do
	4 th	DoublepolestructureforLTdistributionlines
	5 th	do
	6 th	do
11 th	1 st	DoublepolestructureforHTdistributionlines
	2 nd	do
	3 rd	do
	4 th	Doublepolestructurefor LTdistributionlineswithguardwire
	5 th	do
	6 th	do
12 th	1 st	Doublepolestructurefor HTdistributionlineswithguardwire
	2 nd	do
	3 rd	do
	4 th	SINGLELINEDIAGRAMOFSUBSTATION: Singlelinediagramof33/11kVdistributi onsubstation.
	5 th	do
	6 th	Do



GOVERNMENT POLYTECHNIC KORAPUT

13 th	1 st	Single linediagramofal 1/0.4kV distributionsubstation.
	2 nd	Do
	3 rd	do
	4 th	DrawElectricalsymbols
	5 th	do
	6 th	do
14 th	1 st	DrawD.C.m/cparts
	2 nd	do
	3 rd	do
	4 th	DrawA.C.m/c parts
	5 th	do
	6 th	do
15 th	1 st	DrawelectricallayoutofdiagramofElectricalInstallationofabuilding
	2 nd	do
	3 rd	do
	4 th	do
	5 th	do
	6 th	do


Signature of HOD electrical)


Signature of faculty