

LESSON PLAN FOR ACADEMIC SESSION 2022-2023

Discipline : ELECTRIAL	Semester:- 4 TH	Name of the Teaching Faculty: - DEBIPRASAD PRUTHUIRAJ DHALL
Subject:- GTD (TH-4)	No of Days/per Week Class Allotted :- 04	Semester From:- 01.10.2021 To:- 19.01.2022
Week	Class Day	Theory
1 st	1 st	Elementary idea on generation of electricity from Thermal, Hydro, Nuclear, Power station.
	2 nd	Continue
	3 rd	Introduction to Solar Power Plant (Photovoltaic cells).
	4 th	Layout diagram of generating stations.
2 nd	1 st	Continue
	2 nd	Continue
	3 rd	Layout of transmission and distribution scheme.
	4 th	Voltage Regulation & efficiency of transmission.
3 rd	1 st	State and explain Kelvin's law for economical size of conductor.
	2 nd	Corona and corona loss on transmission lines.
	3 rd	Types of supports, size and spacing of conductor.
	4 th	State and explain Kelvin's law for economical size of conductor.
4 th	1 st	Sag in overhead line with support at same level and different level. (approximate formula effect of wind, ice and temperature on sag)
	2 nd	Simple problem on sag.
	3 rd	Problems
	4 th	Continue
5 th	1 st	Continue
	2 nd	Continue
	3 rd	Calculation of regulation and efficiency.
	4 th	Continue
6 th	1 st	Continue
	2 nd	EHV AC transmission.
	3 rd	HV DC transmission.
	4 th	Reasons for adoption of EHV AC transmission.

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7 th	1 st	Advantages and Limitations of HVDC transmission system.
	2 nd	Introduction to Distribution System.
	3 rd	Connection Schemes of Distribution System: (Radial, Ring Main and Inter connected system)
	4 th	Distributor fed at one End.
8 th	1 st	Distributor fed at one End.
	2 nd	Distributor fed at both the ends. Ring distributors.
	3 rd	Method of solving AC distribution problem.
	4 th	Three phase four wire star connected system arrangement.
9 th	1 st	Cable insulation and classification of cables.
	2 nd	Types of L. T. & H.T. cables with constructional features.
	3 rd	Methods of cable lying.
	4 th	Continue
10 th	1 st	Localization of cable faults: Murray and Valley loop test for short circuit fault / Earth fault.
	2 nd	Continue
	3 rd	Causes of low power factor and methods of improvement of power factor in power system
	4 th	Continue
11 th	1 st	. Factors affecting the economics of generation:
	2 nd	Continue
	3 rd	. Load curves.
	4 th	Continue
12 th	1 st	Maximum demand Diversity factor
	2 nd	Load factor. Demand factor
	3 rd	Plant capacity factor.
	4 th	Peak load and Base load on power station
13 th	1 st	Continue
	2 nd	Desirable characteristic of a tariff
	3 rd	Continue
	4 th	Explain flat rate, block rate, two part and maximum demand tariff. (Solve Problems)
	1 st	Layout of LT, HT and EHT substation.
	2 nd	Continue

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14 th	3 rd	Earthing of Substation, transmission and distribution lines.
	4 th	Continue
15 th	1 st	Class test
	2 nd	Class test
	3 rd	Question discussion
	4 th	Question discussion

D. P. Choudhary
13.02.2023

Teaching Faculty

P. S. Choudhary
13/02/23

H.O.D E.E

[Signature]
13/2/23

Principal

Govt. Polytechnic, Dhenkanal