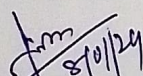
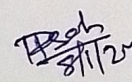
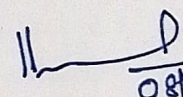


Discipline:- Electrical Engg.	Semester:- 4 th	Name of the Teaching Faculty:- AMIYARANJANDAS
Subject:- GENERATION TRANSMISSION & DISTRIBUTION	No of Days/per Week Class Allotted:- 4+1 (Tutorial)	Semester From: 16.01.2024 To: 26.04.2024 No of Weeks:- 15
Week	Class/Day	Theory Topics
1 st	1 st	1. GENERATION OF ELECTRICITY 1.1. Elementary idea of generation of electricity from Thermal Power station.
	2 nd	1.1. Elementary idea of generation of electricity from Thermal Power station. (contd...)
	3 rd	1.1. Elementary idea of generation of electricity from hydro Power station.
	4 th	1.1. Elementary idea of generation of electricity from nuclear Power station.
	5 th	1.2. Introduction to solar Power plant (photovoltaic cell).
2 nd	1 st	Tutorial.
	2 nd	1.3. Layout diagram of generating stations.
	3 rd	1.3. Layout diagram of generating stations.
	4 th	2. TRANSMISSION OF ELECTRIC POWER 2.1. Layout of transmission and distribution scheme
	5 th	2.1. Layout of transmission and distribution scheme. (contd...)
3 rd	1 st	2.2. Voltage regulation & efficiency of transmission.
	2 nd	2.3. State and explain kelvin's law for economical size of conductor.
	3 rd	Tutorial
	4 th	2.4. Corona and corona loss on transmission lines.
	5 th	2.4. Corona and corona loss on transmission lines.
4 th	1 st	3. OVERHEAD LINES 3.1. Types of supports, size and spacing of conductor.
	2 nd	3.1. Types of supports, size and spacing of conductor. (contd...)
	3 rd	3.2. Types of conductor materials.
	4 th	Tutorial
	5 th	3.3. State types of insulator and cross arms.
5 th	1 st	3.4. Sag in overhead line with support at same level and different level
	2 nd	Tutorial
	3 rd	3.4. Sag in overhead line with support at same level (approximate formula effect of wind, ice and temperature on sag) simple problem.
	4 th	3.4. Sag in overhead line with support at same level (approximate formula effect of wind, ice and temperature on sag) simple problem. (contd...)
	5 th	3.5. Simple problems on sag.
6 th	1 st	Tutorial
	2 nd	4. PERFORMANCE OF SHORT & MEDIUM LINES 4.1. Calculation of regulation and efficiency.
	3 rd	4.1. Calculation of regulation and efficiency. (contd...)
	4 th	4.1. Calculation of regulation and efficiency. (contd...)
	5 th	4.1. Calculation of regulation and efficiency. (contd...)
7 th	1 st	4.1. Calculation of regulation and efficiency. (contd...)
	2 nd	4.1. Calculation of regulation and efficiency. (contd...)
	3 rd	Tutorial
	4 th	5. EHV TRANSMISSION 5.1. EHVAC transmission
	5 th	5.1. EHVAC transmission. (contd...)
8 th	1 st	5.1.1. Explain Reasons for adoption of EHVAC transmission.
	2 nd	5.1.1. Explain Reasons for adoption of EHVAC transmission. (contd...)
	3 rd	Tutorial
	4 th	5.2. HVDC transmission.
	5 th	5.2. HVDC transmission. (contd...)
9 th	1 st	5.2.1. Advantages and limitations of HVDC transmission system.
	2 nd	6. DISTRIBUTION SYSTEMS 6.1. Introduction to Distribution System
	3 rd	6.1. Introduction to Distribution System. (contd...) 6.2. Connection schemes of distribution system (Radial, Ring Main and Inter connected system)
	4 th	6.3. DC distributions 6.3.1. Distributor fed at one end 6.3.2. Distributor fed at both the ends 6.3.3. Ring distributors.
	5 th	Tutorial

10th	1st	6.4.ACdistributionssystem.
	2nd	6.4.1.MethodofsolvingACdistributionproblem.
	3rd	6.4.1.MethodofsolvingACdistribution problem(contd...)
	4th	6.4.2.Threephasefourwirestarconnectedsystemarrangement.
	5th	7. UNDERGROUND CABLE 7.1. Cableinsulationandclassificationofcables
	1st	7.1. Cableinsulationandclassificationofcables.(contd...)
11th	2nd	7.1.Cableinsulationandclassificationofcables
	3rd	7.2.TypesofL.T.&H.T.cableswithconstructionalfeatures.
	4th	7.2.TypesofL.T.&H.T.cableswithconstructionalfeatures.(contd...)
	5th	Tutorial
12th	1st	7.3.Methodsofcablelaying.
	2nd	7.4. Localisationofcablefaults–MurrayandVarleylooptestforshortcircuitfault/Earthfault
	3rd	8.ECONOMICASPECTS 8.1. Causesoflowpowerfactor&methodsofimprovementofpower factorinpowersystem.
	4th	8.2.Factorsaffectingtheeconomicsofgeneration(Define andexplain).
	5th	Tutorial
13th	1st	8.2.1.Loadcurves
	2nd	8.2.2Demandfactor. 8.2.3. Maximumdemand.
	3rd	8.2.4Load factor. 8.2.5Diversityfactor.
	4th	8.2.6.Plantcapacityfactor. 8.3PeakloadandBaseloadonpowerstation
	5th	Tutorial
14th	1st	9. TYPES OF TARIFF 9.1 Describecharacteristicsofatariff.
	2nd	9.2.Explaintwoparttariff,blockrate,flatrateand maximumdemandtariffwithproblems.
	3rd	9.2.Explaintwoparttariff,blockrate,flatrateandmaximumdemandtariffwithproblems.(contd...)
	4th	Tutorial
	5th	10. SUBSTATION 10.1. LayoutofL.T.HTandEHTsubstation.
15th	1st	10.1LayoutofL.T.HT andEHT substation.(contd...)
	2nd	10.2.EarthingofSubstation,transmission&distributionlines.
	3rd	10.2.EarthingofSubstation,transmission&distributionlines.(contd...)
	4th	10.2.EarthingofSubstation,transmission&distributionlines.(contd...)
	5th	Tutorial


8/10/24
Sign of faculty


8/11/24
Sign of HOD
Head of Dept., HOD
Electrical & ETC Engg
G. E.T (POLY), ...


08/11/24
Sign of Principal