ACADEMIC LESSON PLAN OF WINTER 2022

Discipline: EE	Semester: 4rdSem (Section A)	Name of the Teaching Faculty: Rojalin Choudhury
Subject: Generation, Transmission, Distribution	No. of days/per week class allotted: 4p/week	Semester From: 10th March 2022 to 10th June 2021
1st	10/03/2022	**Unit 1: GENERATION OF ELECTRICITY** 1.1 Elementary idea on generation of electricity from Thermal, Hydel, Nuclear, Power station.
	14/03/2022	1.1 Elementary idea on generation of electricity from Thermal, Hydel, Nuclear, Power station.
	15/03/2022	1.1 Elementary idea on generation of electricity from Thermal, Hydel, Nuclear, Power station.
	16/03/2022	1.1 Elementary idea on generation of electricity from Thermal, Hydel, Nuclear, Power station.
2nd	17/03/2022	1.1 Elementary idea on generation of electricity from Thermal, Hydel, Nuclear, Power station.
	21/03/2022	1.2 Introduction to Solar Power Plant (Photovoltaic cells)
	22/03/2022	1.3 Layout diagram of generating stations
	23/03/2022	**Unit2: TRANSMISSION OF ELECTRIC POWER** 2.1 Layout of transmission and distribution scheme.
3rd	24/03/2022	2.2 Voltage Regulation & efficiency of transmission.
	28/03/2022	2.3 State and explain Kelvin's law for economical size of conductor.
	29/03/2022	2.4 Corona and corona loss on transmission lines.
	30/03/2022	2.4 Corona and corona loss on transmission lines.
4th	31/03/2022	**Unit 3: OVER HEAD LINES** 3.1 Types of supports, size and spacing of conductor.
	04/04/2022	3.2 Types of conductor materials
	05/04/2022	3.3 State types of insulator and cross arms.
	06/04/2022	3.4 Sag in overhead line with support at same level and different level. (approximate formula effect of wind, ice and temperature on sag)
5th	07/04/2022	3.4 Sag in overhead line with support at same level and different level. (approximate formula effect of wind, ice and temperature on sag)
	11/04/2022	3.4 Sag in overhead line with support at same level and different level. (approximate formula effect of wind, ice and temperature on sag)
	12/04/2022	3.5 Simple problem on sag.
	13/04/2022	**Unit 4: PERFORMANCE OF SHORT & MEDIUM LINES** 4.1. Calculation of regulation and efficiency.
6th	14/04/2022	HOLIDAY
	18/04/2022	4.1. Calculation of regulation and efficiency.
	19/04/2022	4.1. Calculation of regulation and efficiency.
	20/04/2022	4.1. Calculation of regulation and efficiency.
7th	21/04/2022	4.1. Calculation of regulation and efficiency.
	25/04/2022	4.1. Calculation of regulation and efficiency.
	26/04/2022	4.1. Calculation of regulation and efficiency.
	27/04/2022	**Unit 5: EHV TRANSMISSION** 5.1 EHV AC transmission.
8th	28/04/2022	5.1..1. Reasons for adoption of EHV AC transmission
	02/05/2022	5.1..2. Problems involved in EHV transmission.
	03/05/2022	HOLIDAY.
	04/05/2022	5.2 HV DC transmission.
9th	05/05/2022	5.2 HV DC transmission.

	09/05/2022	5.2..1. Advantages and Limitations of HVDC transmission system.
	10/05/2022	**Unit 6: DISTRIBUTION SYSTEMS** 6.1 Introduction to Distribution System. .
	11/05/2022	6.2 Connection Schemes of Distribution System: (Radial, Ring Main and Inter connected system)
10th	12/05/2022	6.3 DC distributions. 6.3.1 Distributor fed at one End.
	16/05/2022	HOLIDAY.
	17/05/2022	6.3.2 Distributor fed at both the ends. 6.3.3 Ring distributors.
	18/05/2022	6.4 AC distribution system
11th	19/05/2022	6.4.1. Method of solving AC distribution problem.
	23/05/2022	6.4.2. Three phase four wire star connected system arrangement.
	24/05/2022	**Unit 7: UNDERGROUND CABLES** 7.1 Cable insulation and classification of cables.
	25/05/2022	7.2 Types of L. T. & H.T. cables with constructional features.
12th	26/05/2022	7.2 Types of L. T. & H.T. cables with constructional features.
	30/05/2022	HOLIDAY.
	31/05/2022	7.3 Methods of cable lying.
	01/06/2022	7.3 Methods of cable lying.
13th	02/06/2022	7.4 Localization of cable faults: Murray and Varley loop test for short circuit fault / Earth fault.
	06/06/2022	**Unit 8: ECONOMIC ASPECTS** 8.1 Causes of low power factor and methods of improvement of power factor in power system.
	07/06/2022	8.2 Factors affecting the economics of generation: (Define and explain) 8.2.1 Load curves.
	08/06/2022	8.2.2 Demand factor. 8.2.3 Maximum demand.
14th	09/06/2022	8.2.4 Load factor. 8.2.5 Diversity factor.
	Extra class	8.2.6 Plant capacity factor.
	Extra class	8.3 Peak load and Base load on power station.
	Extra class	**Unit 9:TYPES OF TARIFF** 9.1. Desirable characteristic of a tariff.
15th	Extra class	9.2. Explain flat rate, block rate, two part and maximum demand tariff. (Solve Problems)
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	Extra class	**Unit 10. SUBSTATION** 10.1 Layout of LT, HT and EHT substation.
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16th	Extra class	10.1 Layout of LT, HT and EHT substation.
	Extra class	10.2 Earthing of Substation, transmission and distribution lines.
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Signature of Teaching Faculty

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Discipline: EE	Semester: 4rdSem (Section B)	Name of the Teaching Faculty: Rojalin Choudhury
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	31/03/2022	3.2 Types of conductor materials
	6/04/2022	3.3 State types of insulator and cross arms.
	6/04/2022	3.4 Sag in overhead line with support at same level and different level. (approximate formula effect of wind, ice and temperature on sag)
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