Lesson Plan of Generation Transmission & Distribution

1st 1 Elementary idea on generation of electricity from Thermal, Hydro, Nuclear, Power station. 2 Continue 3 Introduction to Solar Power Plant (Photovoltaic cells). 4 Continue 5 Layout diagram of generating stations. 2 "" 6 Continue 7 Continue 8 Layout of transmission and distribution scheme. 9 Voltage Regulation & efficiency of transmission. 10 Continue 3 "" 11 State and explain Kelvin's law for economical size of conductor. 12 Corona and corona loss on transmission lines. 13 Types of supports, size and spacing of conductor. 14 Continue 15 State types of insulator and cross arms. 16 Sag in overhead line with support at same level and different level. (approximate formula effect of wind, ice and temperature on sag) 17 Continue 18 Simple problem on sag. 19 Continue 20 Calculation of regulation and efficiency. 21 Continue 22 Continue 23 Calculation of regulation and efficiency. 24 Continue 25 Continue 26 Continue 27 EHV AC transmission. 28 Continue 29 Reasons for adoption of EHV AC transmission. 30 Continue 31 Problems involved in EHV transmission. 32 HV DC transmission. 33 Advantages and Limitations of HVDC transmission system. 34 Introduction to Distribution System: (Radial, Ring Main and Inter connected system)	No. of weel	k No. of	Topic to be taught NAME OF TEACHING FACULTY-PRADEEP KUMAR MOHANT
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			Main and Inter connected system)

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Lesson Plan of Generation Transmission & Distribution

8 th		Distribution
8	36	Distributor fed at one End.
	37	Distributor fed at both the ends.
	38	Ring distributors.
	39	Method of solving AC distribution problem.
	40	Three phase four wire star connected system arrangement.
9 th	41	Cable insulation and classification of cables.
	42	Types of L. T. & H.T. cables with constructional features.
	43	Methods of cable lying.
	44	Continue
	45	Localization of cable faults: Murray and Valley loop test for
		short circuit fault / Earth fault.
10 th	46	Continue
	47	Causes of low power factor and methods of improvement of
		power factor in power system
	48	Factors affecting the economics of generation:
	49	Load curves.
	50	Demand factor, Maximum demand
11 th	51	Load factor.
1		Diversity factor.
	52	Plant capacity factor.
		Peak load and Base load on power station.
	53	Desirable characteristic of a tariff.
	54	Explain flat rate, block rate, two part and maximum demand
		tariff. (Solve Problems)
	55	Continue
	56	Layout of LT, HT and EHT substation.
	57	Continue
	58	Earthing of Substation, transmission and distribution lines.
	59	Continue
	60	Continue

P. 419125

Teacher's signature

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