

DISCIPLINE- ELECTRICAL ENGG	SEMESTER- 4TH	NAME OF THE TEACHING FACULTY- BASUDEV BARICK , PTGF (ELECT.)	
SUB -GTD WEEK	NO OF DAYS PER WEEK CLASS ALLOTTED-4 CLASS DAY	THEORY	STATUS
1ST	1ST DAY	Elementary idea on generation of electricity from Thermal	Completed
	2nd DAY	Elementary idea on generation of electricity from hydro	
	3rd DAY	Elementary idea on generation of electricity from nuclear	
	4th DAY	introduction to photovoltaic cell	
2nd	1ST DAY	introduction to solar power plant	
	2nd DAY	introduction to solar power plant	
	3rd DAY	layout diagram of generating stations	
	4th DAY	Layout of transmission and distribution scheme.	
3rd	1ST DAY	Voltage Regulation & efficiency of transmission	
	2nd DAY	State and explain Kelvin's law for economical size of conductor.	
	3rd DAY	Corona and corona loss on transmission lines.	
	4th DAY	Corona and corona loss on transmission lines.	
4th	1ST DAY	Types of supports, size and spacing of conductor.	
	2nd DAY	Types of conductor materials.	
	3rd DAY	State types of insulator and cross arms.	
	4th DAY	Sag in overhead line with support at same level	
5th	1ST DAY	Sag in overhead line with support at differnt level	
	2nd DAY	Simple problem on sag.	
	3rd DAY	Simple problem on sag.	
	4th DAY	classification of transmission line	
6th	1ST DAY	performance of short transmission line	
	2nd DAY	problems on short transmission line	
	3rd DAY	performance of medium transmission line(end condenser method)	
	4th DAY	performance of medium transmission line(nominal pi method & nomial t method)	
7th	1ST DAY	problems on short transmission line	
	2nd DAY	class test -1	
	3rd DAY	introduction to EHV AC transmission.	
	4th DAY	Reasons for adoption of EHV AC transmission.	
8th	1ST DAY	Problems involved in EHV transmission	
	2nd DAY	introduction to HVDC transmission	
	3rd DAY	Limitations of HVDC transmission system	
	4th DAY	advantagesof HVDC transmission system	
9th	1ST DAY	revision of chapter 1 & chapter 2	
	2nd DAY	Introduction to Distribution System.	
	3rd DAY	Connection Schemes of Distribution System:	
	4th DAY	Distributor fed at one End. & Distributor fed at both the ends.	
10th	1ST DAY	Ring distributors. & numericals on dc distributors	3.66667E+26
	2nd DAY		
	3rd DAY	Three phase four wire star connected system arrangement	
	4th DAY	numerical on ac distributor	

DISCIPLINE- ELECTRICAL ENGG	SEMESTER- 4TH	NAME OF THE FACULTY	
SUB -GTD	NO OF DAYS PER WEEK CLASS ALLOTTED-4		
WEEK	CLASS DAY	THEORY	STATUS
11TH	1ST DAY	Cable insulation and classification of cables.	
	2nd DAY	Types of L. T. & H.T. cables with constructional features	
	3rd DAY	Methods of cable lying.	
	4th DAY	Localization of cable faults: Murray and Varley loop test for short circuit fault	
12th	1ST DAY	Earth fault.	
	2nd DAY	revision class	
	3rd DAY	power factor & power triangle	
	4th DAY	Causes of low power factor and methods of improvement of power factor in power system	
13th	1ST DAY	Factors affecting the economics of generation: load curve	
	2nd DAY	Load curves. Demand factor. Maximum demand. Load factor. Diversity factor. Plant capacity factor	
	3rd DAY	Peak load and Base load on power station	
	4th DAY	numerical problems	
14th	1ST DAY	numerical problems	
	2nd DAY	Desirable characteristic of a tariff.	
	3rd DAY	Explain flat rate, block rate, two part and maximum demand tariff	
	4th DAY	numerical problems	
15th	1ST DAY	Layout of LT, HT and EHT substation	
	2nd DAY	Layout of LT, HT and EHT substation	
	3rd DAY	Earthing of Substation, transmission and distribution lines.	
	4th DAY	Earthing of Substation, transmission and distribution lines.	
16th	1ST DAY	revision for semester examination	
	2nd DAY	revision for semester examination	
	3rd DAY	revision for semester examination	
	4th DAY	revision for semester examination	

*Faculties*  
10.03.2022

DISCIPLINE- ELECTRICAL ENGG	SEMESTER- 6th	NAME OF THE FACULTY- ER. RAJENDRA KUMAR PRUSTY & BASUDEV BARICK	
SUB -GTD	NO OF DAYS PER WEEK CLASS ALLOTTED-5	SEMESTER FROM -10.03.2022 -10.06.2022	
WEEK	CLASS DAY	THEORY	STATUS
1ST	1ST DAY	Classification of Control system	
	2nd DAY	Open loop system & Closed loop system and its comparison	
	3rd DAY	Effects of Feed back and Standard test Signals	
	4th DAY	Servomechanism	
	5th DAY	Transfer Function & Impulse respons	
2nd	1ST DAY	Properties, Advantages & Disadvantages of Transfer Function Poles & Zeroes of transfer Function	
	2nd DAY	Simple problems of transfer function of network.	
	3rd DAY	Mathematical modeling of Electrical Systems(R, L, C, Analogous systems	
	4th DAY	Components of Control System & Gyroscope	
	5th DAY	Synchros, Tachometer	
3rd	1ST DAY	DC servomotors	
	2nd DAY	A,C servomotors	
	3rd DAY	Definition: Basic Elements of Block Diagram	
	4th DAY	Canonical Form of Closed loop Systems	
	5th DAY	Rules for Block diagram reduction and Procedure for of Reduction of Block Diagram	
4th	1ST DAY	Simple Problem for equivalent transfer function	
	2nd DAY	Simple Problem for equivalent transfer function	
	3rd DAY	Basic Definition in Signal Flow Graph & properties	
	4th DAY	Construction of Signal Flow graph from Block diagram	
	5th DAY	Mason's Gain formula	
5th	1ST DAY	Simple problems in Signal flow graph for network	
	2nd DAY	Time response of control system.	
	3rd DAY	Standard Test signal Step signal,Ramp Signal Parabolic Signal Impulse Signal	
	4th DAY	3 Time Response of first order system with Unit step response	
	5th DAY	4 Time Response of first order system with Unit impulse response	
6th	1ST DAY	Time response of second order system to the unit step input.	
	2nd DAY	Time response specification	
	3rd DAY	Derivation of expression for rise time, peak time, peak overshoot, settling time and steady state error	
	4th DAY	Steady state error and error constants	
	5th DAY	5 Types of control system.[ Steady state errors in Type-0, Type-1, Type-2 system Effect of adding poles and zero to transfer function.	

7th	1ST DAY	Response with P, PI, PD and PID controller.	
	2nd DAY	CLASS TEST-1	
	3rd DAY	Root locus concept.	
	4th DAY	Root locus concept.	
	5th DAY	Construction of root loci.	
8th	1ST DAY	Construction of root loci.	
	2nd DAY	Rules for construction of the root locus	
	3rd DAY	Rules for construction of the root locus	
	4th DAY	ROOT LOCUS CONSTRUCTION OF A OPEN LOOP TRANSFER FUNCTION	
	5th DAY	ROOT LOCUS CONSTRUCTION OF A OPEN LOOP TRANSFER FUNCTION	
9th	1ST DAY	Effect of adding poles and zeros to $G(s)$ and $H(s)$	C.W.
	2nd DAY	Effect of adding poles and zeros to $G(s)$ and $H(s)$	
	3rd DAY	FREQUENCY RESPONSE ANALYSIS	
	4th DAY	FREQUENCY RESPONSE ANALYSIS	
	5th DAY	Correlation between time response and frequency response.	
10th	1ST DAY	Polar plots	
	2nd DAY	Polar plots	
	3rd DAY	Bode plots	
	4th DAY	Bode plots	
	5th DAY	All pass and minimum phase system.	

WEEK	CLASS DAY	THEORY	STATUS
11TH	1ST DAY	Computation of Gain margin and phase margin.	
	2nd DAY	Computation of Gain margin and phase margin.	
	3rd DAY	Log magnitude versus phase plot.	
	4th DAY	Log magnitude versus phase plot.	
	5th DAY	Closed loop frequency response	
12th	1ST DAY	Closed loop frequency response	C.W.
	2nd DAY	NYQUIST PLOT	
	3rd DAY	NYQUIST PLOT	
	4th DAY	Principle of argument	
	5th DAY	Principle of argument	
13th	1ST DAY	Nyquist stability criterion.	
	2nd DAY	Nyquist stability criterion.	
	3rd DAY	Nyquist stability criterion applied to inverse polar plot	
	4th DAY	Nyquist stability criterion applied to inverse polar plot	
	5th DAY	Effect of addition of poles and zeros to $G(S)$ $H(S)$ on the shape of Niquist plot.	
14th	1ST DAY	Effect of addition of poles and zeros to $G(S)$ $H(S)$ on the shape of Niquist plot.	
	2nd DAY	Assessment of relative stability.	
	3rd DAY	Assessment of relative stability.	
	4th DAY	Constant M and N circle	
	5th DAY	Constant M and N circle	

15th	1ST DAY	Constant M and N circle	
	2nd DAY	Nicholas chart	
	3rd DAY	Nicholas chart	
	4th DAY	REVISION CLASS FOR SEMESTER	
	5th DAY	REVISION CLASS FOR SEMESTER	
16th	1ST DAY	REVISION CLASS FOR SEMESTER	
	2nd DAY	REVISION CLASS FOR SEMESTER	
	3rd DAY	REVISION CLASS FOR SEMESTER	
	4th DAY	REVISION CLASS FOR SEMESTER	
	5th DAY	REVISION CLASS FOR SEMESTER	

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