

GANESH INSTITUTE OF ENGINEERING AND TECHNOLOGY, POLYTECHNIC

DEPARTMENT OF ELECTRICAL ENGINEERING

Er. Koushik Roy

LESSON PLAN CUM PROGRESS REPORT

SUBJECT: SWITCH GEAR & PROTECTIVE DEVICE				SEMESTER: 6 th			BRANCH: ELECTRICAL ENGINEERING		
LECTURE NO.	CO	BTL	TOPIC TO BE COVERED	BOOK NAME/CHAPT. NO./PAGE NO.	WEB REFERENCE	TEACHING LEARNING METHOD	PLAN DATE	ACTION DATE	REVIEW BY HOD
1	CO-1	1	Chapter No.- 01 (INTRODUCTION TO SWITCHGEAR) Introduction	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHIT MEHTA/16.1/387	https://www.youtube.com/results?search_query=INTRODUCTION+TO+SWITCHGEAR ++Introduction+	1-Introduction to SGPD-PPT/SMART BOARD-5min 2-Prerequisites for SGPD-PPT/SMART BOARD-5min 3-Syllabus & CO discussion-PPT/SMART BOARD-10min 4-Lecture-PPT/SMART BOARD-30min 5-Assignment-10min	17-01-2026		
2	CO-1	1	Essential Features of switch gear	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHIT MEHTA/16.2/388	https://www.youtube.com/results?search_query=Essential+Features+of+switch+gear	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD-45min 3-Doubts &	18-01-2026		
3	CO-1	1	Switchgear Equipment. Bus-Bar Arrangement	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHIT MEHTA/16.3/391	https://www.youtube.com/results?search_query=Switchgear+Equipment.++Bus-Bar+Arrangement	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-45min 3-Doubts & Assignment-10min	19-01-2026		
4	CO-1	2	Bus-Bar Arrangement.	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHIT MEHTA/16.3/391	https://www.youtube.com/results?search_query=Bus-Bar+Arrangement	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	20-01-2026		
5	CO-1	2	Switchgear Accommodation.	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHIT MEHTA/16.4/393	https://www.youtube.com/results?search_query=Switchgear+Accommodation.	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	21-01-2026		
6	CO-1	2	Short Circuit	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHIT MEHTA/16.5/395	https://www.youtube.com/results?search_query=Short+Circuit	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-45min	24-01-2026		
7	CO-1	2	Faults in a power system.	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHIT MEHTA/16.6/396	https://www.youtube.com/results?search_query=Faults+in+a+power+system.	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	25-01-2026		
8	CO-4	3	Chapter No.- 01 (FAULT CALCULATION)	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHIT MEHTA/17.1/397	https://www.youtube.com/results?search_query=Symmetrical+faults+on+3-	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	28-01-2026		
9	CO-4	1	Percentage Reactance. Percentage Reactance and	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHIT MEHTA/17.2/399	https://www.youtube.com/results?search_query=Percentage+Reactance.++Percentage+Reactance+and+	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-45min	01-02-2026		
10	CO-4	2	Short – circuit KVA Reactor control of	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHIT MEHTA/17.3/400	https://www.youtube.com/results?search_query=Short+%E2%80%93+circuit+KVA++Reactor	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	02-02-2026		

LECTURE NO.	CO	BTL	TOPIC TO BE COVERED	BOOK NAME./CHAPT. NO./PAGE NO.	WEBREFERENC EIFANY	TEACHINGLEARNINGMETHOD	PLAN DATE	ACTION DATE	REVIEW BY HOD
11	CO-4	1	Location of reactors.	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/17.3/401	https://www.youtube.com/results?search_query=Location+of+reactors.	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	03-02-2026		
12	CO-4	1	Steps for symmetrical Fault calculations	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/17.4/401	https://www.youtube.com/results?search_query=Steps+for+symmetrical+Fault+calculations.	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	06-02-2026		
13	CO-4	4	Solve numerical problems on symmetrical fault	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/17.5/402	https://www.youtube.com/results?search_query=Solve+numerical+problems+on+symmetric	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	07-02-2026		
14	CO-4	4	Problem1	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/17.5/404	https://www.youtube.com/results?search_query=Solve+numerical+problems+on+symmetric	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	08-02-2026		
15	CO-4	4	Problem2	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/17.5/4066	https://www.youtube.com/results?search_query=Solve+numerical+problems+on+symmetric	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	10-02-2026		
16	CO-4	4	Problem3	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/17.6/407	https://www.youtube.com/results?search_query=Solve+numerical+problems+on+symmetric	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	11-02-2026		
17	CO-3	1	Chapter No.-02 (FUSES) Desirable characteristics	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/20.2/489	https://www.youtube.com/results?search_query=Desirable+characteristics+of+fuse+elemen	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	12-02-2026		
18	CO-3	1	Types of Fuses and important characteristics	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/20.3/490	https://www.youtube.com/results?search_query=Desirable+characteristics+of+fuse+elemen	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	13-02-2026		
19	CO-3	1	Low voltage fuses,	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/20.4/492	https://www.youtube.com/results?search_query=Low+voltage+fuses%2C	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	17-02-2026		
20	CO-3	1	High voltage fuses	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/20.5/49	https://www.youtube.com/results?search_query=Low+voltage+fuses%2C	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	18-02-2026		
21	CO-3	2	Current carrying capacity of fuse element	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/20.6/494	https://www.youtube.com/results?search_query=Curren+carrying+capacity+of+fuse+elemen	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	19-02-2026		
22	CO-3	1	Chapter No.-03 (CIRCUIT BREAKERS) Definition and	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/19.1/461	https://www.youtube.com/results?search_query=Defini+tion+and+principle+of+Circuit+Break	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	20-02-2026		
23	CO-3	2	Arc phenomenon and principle of Arc Extinction	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/19.2/463	https://www.youtube.com/results?search_query=Arc+phenomenon+and+principle+of+Arc	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	21-02-2026		
24	CO-3	2	Methods of Arc Extinction	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/19.3/464	https://www.youtube.com/results?search_query=Methods+of+Arc+Extinction	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	24-02-2026		

25	CO-3	1	Definitions of Arc voltage, Re-striking voltage and	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/19.4/465	https://www.youtube.com/results?search_query=Definitions+of+Arc+voltage%2C+Re-striking+voltage+a	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-45min	25-02-2026		
26	CO-3	1	Oil circuit Breaker and its classification	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/19.5/466	https://www.youtube.com/results?search_query=Oil+circuit+Breaker+and+its+classification.	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	26-02-2026		
27	CO-3	1	Plain brake oil circuit breaker	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/19.6/467	https://www.youtube.com/results?search_query=Plain+brake+oil+circuit+breaker	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	28-02-2026		
28	CO-3	2	Arc control oil circuit breaker	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/19.7/468	https://www.youtube.com/results?search_query=Arc+control+oil+circuit+breaker	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	29-02-2026		
29	CO-3	1	Low oil circuit breaker.	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/19.8/469	https://www.youtube.com/results?search_query=Low+oil+circuit+breaker	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	01-03-2026		
30	CO-3	1	Maintenance of oil circuit breaker Air-Blast circuit	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/19.9/470	https://www.youtube.com/results?search_query=Maintenance+of+oil+circuit+breaker+Air-	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	02-03-2026		
31	CO-3	2	Sulphur Hexa-fluoride (SF6) circuit breaker	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/19.9/471	https://www.youtube.com/results?search_query=Sulphur+Hexa-	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART	04-03-2026		
32	CO-3	2	Vacuum circuit breakers	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/19.9/472	https://www.youtube.com/results?search_query=Vacuum+circuit+breaker	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	07-08-2026		
33	CO-3	1	Switchgear component. Problems of circuit	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/19.4/473	https://www.youtube.com/results?search_query=Switchgear+component+Problems+of+circuit	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	08-03-2026		
34	CO-3	2	Resistance switching Circuit Breaker	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/19.4/465	https://www.youtube.com/results?search_query=Resistance+switching+Circuit+Breaker+Rati	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	09-03-2026		
LECTURE NO.	CO	BTL	TOPIC TO BE COVERED	BOOK NAME./CHAPT. NO./PAGE NO.	WEBREFERENC EIFANY	TEACHINGLEARNINGMETHOD	PLAN DATE	ACTION DATE	REVIEW BY HOD
35	CO-3	1	Chapter No.-04 (PROTECTIVE RELAYS)	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/21.1/497	https://www.youtube.com/results?search_query=Definition+of+Protective+Relay.+Fundam	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	11-03-2026		
36	CO-3	2	Basic Relay operation Electromagnetic	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/21.2/498	https://www.youtube.com/results?search_query=Electromagnetic+Attraction+Type+	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	15-03-2026		
37	CO-3	2	Definition of following important terms	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/21.3/499	https://www.youtube.com/results?search_query=Pickup+current%2C+Current+setting	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	16-03-2026		
38	CO-3	2	Definition of following important terms	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/21.3/500	https://www.youtube.com/results?search_query=Pickup+current%2C+Current+setting	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	17-03-2026		
39	CO-3	3	Classification of functional relays.	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/21.4/501	https://www.youtube.com/results?search_query=Classification+of+functional+relays.	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	19-03-2026		

40	CO-3	2	Induction type directional power relay.	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/21.4/501	https://www.youtube.com/results?search_query=Classification+of+functional+relays.	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	21-03-2026		
41	CO-3	2	Induction type directional over current relay	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/21.4/502	https://www.youtube.com/results?search_query=Induction+type+directional+over+current+r	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	22-03-2026		
42	CO-3	2	Differential relay.	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/21.5/502	https://www.youtube.com/results?search_query=Differential+relay.+	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	23-03-2026		
43	CO-3	2	Current differential relay.	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/21.6/504	https://www.youtube.com/results?search_query=Current+differential+relay	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	24-04-2026		
44	CO-3	2	.Voltage balance differential relay.	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/21.6/506	https://www.youtube.com/results?search_query=Voltage+balance+differential+relay	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	25-03-2026		
45	CO-5	1	Chapter No.-06 (PROTECTION OF ELECTRICAL	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/22.1/521	https://www.youtube.com/results?search_query=Protection+of+alternator	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	26-03-2026		
46	CO-5	3	Differential protection of alternators.	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/22.2/522	https://www.youtube.com/results?search_query=Differential+protection+of+alternators.+	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-45min	28-03-2026		
LECTURE NO.	CO	BTL	TOPIC TO BE COVERED	BOOK NAME./CHAPT. NO./PAGE NO.	WEBREFERENC EIFANY	TEACHINGLEARNINGMETHOD	PLAN DATE	ACTION DATE	REVIEW BY HOD
47	CO-5	3	Balanced earth fault protection.	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/22.3/524	https://www.youtube.com/results?search_query=Balanced+earth+fault+protection.+	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	29-03-2026		
48	CO-5	2	Protection systems for transformer	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/22.4/526	https://www.youtube.com/results?search_query=Protection+systems+for+transformer	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	30-03-2026		
49	CO-5	2	Buchholz relay.	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/22.5/527	https://www.youtube.com/results?search_query=Buchholz+relay.+	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	01-04-2026		
50	CO-5	2	Protection of Bus bar	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/22.6/528	https://www.youtube.com/results?search_query=Protection+of+Bus+bar	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	02-04-2026		
51	CO-5	1	Protection of Transmission line	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/22.7/529	https://www.youtube.com/results?search_query=Protection+of+Transmission+line	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	04-04-2026		
52	CO-5	3	Different pilot wire protection (Merz-price voltage Balance	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/22.8/530	https://www.youtube.com/results?search_query=Merz-price+voltage+Bal	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-	06-04-2026		
53	CO-5	2	Explain protection of feeder by over current.	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/22.9/531	https://www.youtube.com/results?search_query=protection+of+feeder+by+over+current.+and+earth+fault+rel	1-Previous class Topic Review-5min 2-Lecture-PPT/SMART BOARD/Chalk duster-45min	07-04-2026		

54	CO-2	1	Chapter No.-07 (PROTECTION AGAINST OVER VOLTAGE)	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/24.1/55 3	https://www.youtube.com/results?search_query=Voltage+surge+and+causes+of+over+voltage	1-Previous class Topic Review-5min 2-Lecture- PPT/SMART BOARD/Chalk duster-	08-04-2026		
55	CO-2	1	Internal cause of over voltage External cause of over voltage	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/24.2/55 4	https://www.youtube.com/results?search_query=Internal+cause+of+over+voltage++External	1-Previous class Topic Review-5min 2-Lecture- PPT/SMART BOARD/Chalk duster-	09-04-2026		
56	CO-2	1	Mechanism of lightning discharge Types of lightning	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/24.3/55 5	https://www.youtube.com/results?search_query=Types+of+lightning+strokes.Harmful+effect	1-Previous class Topic Review-5min 2-Lecture- PPT/SMART BOARD/Chalk duster-	10-04- 2026		
57	CO-2	1	Lightning arresters and Type of lightning	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/24.4/55 6	https://www.youtube.com/results?search_query=Type+of+lightning+Arresters+	1-Previous class Topic Review-5min 2-Lecture- PPT/SMART BOARD/Chalk duster-	13-04- 2026		
58	CO-2	2	Horn-gap arrester Valve type arrester	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/24.5/55 7	https://www.youtube.com/results?search_query=Type+of+lightning+Arresters	1-Previous class Topic Review-5min 2-Lecture- PPT/SMART BOARD/Chalk duster-	14-04- 2026		
LECTURE NO.	CO	BTL	TOPIC TO BE COVERED	BOOK NAME./CHAPT. NO./PAGE NO.	WEBREFERENC EIFANY	TEACHINGLEARN INGMETHOD	PLAN DATE	ACTION DATE	REVIEW BY HOD
59	CO-3	2	Chapter No.-08 (STATIC RELAY) Advantage of	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/21.6/50 3	https://www.youtube.com/results?search_query=Instantaneous+over+current+relay+	1-Previous class Topic Review-5min 2-Lecture- PPT/SMART BOARD/Chalk duster-	15-04-2026		
60	CO-3	2	Principle of IDMT relay.	PRINCIPLES OF POWERSYSTEM V.K MEHTA, ROHITMEHTA/21.6/50 3	https://www.youtube.com/results?search_query=Principle+of+IDMT+relay+	1-Previous class Topic Review-5min 2-Lecture- PPT/SMART BOARD/Chalk duster-	15-04-2026		

Principal

Faculty

HoD, Electrical Engineering