

GOVERNMENT POLYTECHNIC ,BARGARH

Department Of Electrical Engineering

Semester: 6th, DIPLOMA
 Subject: SGPD
 Branch: Electrical Engineering

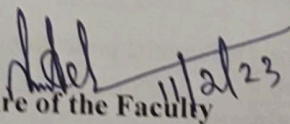
Session: 2023(Summer)
 No of Period : 75 (60 L+ 15 T)
 Name of Faculty: NITESH KU. ACHARYA

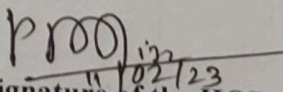
Period	Date	Topic to be covered
1	13.02.2023	INTRODUCTION TO SWITCHGEAR: - Essential Features of switchgear.
2	14.02.2023	Switchgear Equipment
3	15.02.2023	Bus-Bar Arrangement, Switchgear Accommodation.
4	16.02.2023	Short Circuit
5	18.02.2023	Recall of period no. 1 to 4
6	20.02.2023	Faults in a power system
7	21.02.2023	FAULT CALCULATION Symmetrical faults on 3-phase system.
8	22.02.2023	Limitation of fault current. Percentage Reactance.
9	23.02.2023	Percentage Reactance and Base KVA.
10	25.02.2023	Recall of period no. 6 to 9
11	27.02.2023	Short - circuit KVA. Reactor control of short circuit currents.
12	28.02.2023	Location of reactors.
13	01.03.2023	Steps for symmetrical Fault calculations.
14	02.03.2023	Solve numerical problems on symmetrical fault.
15	04.03.2023	Recall of period no. 11 to 14
16	06.03.2023	Solve numerical problems on symmetrical fault.
17	09.03.2023	FUSES

		Desirable characteristics of fuse element. Fuse Element materials.
18	11.03.2023	Types of Fuses and important terms used for fuses.
19	11.03.2023 (3:00 pm-04:00 pm)	Low and High voltage fuses
20	13.03.2023	Recall of period no. 16 to 19
21	14.03.2023	Current carrying capacity of fuse element. Difference Between a Fuse and Circuit Breaker.
22	15.03.2023	CIRCUIT BREAKERS Definition and principle of Circuit Breaker
23	16.03.2023	Arc phenomenon and principle of Arc Extinction.
24	18.03.2023	Methods of Arc Extinction.
25	18.03.2023 (3:00 pm-04:00 pm)	Recall of period no. 21 to 24
26	20.03.2023	Definitions of Arc voltage, Re-striking voltage and Recovery voltage.
27	21.03.2023	Classification of circuit breakers. Oil circuit Breaker and its classification
28	22.03.2023	Plain break oil circuit breaker.
29	23.03.2023	Arc control oil circuit breaker.
30	25.03.2023	Recall of period no. 26 to 29
31	25.03.2023 (3:00 pm-04:00 pm)	Low oil circuit breaker Maintenance of oil circuit breaker.
32	27.03.2023	Air-Blast circuit breaker and its classification
33	28.03.2023	Sulphur Hexa-fluoride (SF ₆) circuit breaker.
34	29.03.2023	Vacuum circuit breakers.
35	03.04.2023	Recall of period no. 31 to 34
36	04.04.2023	Switchgear component.
37	05.04.2023	Problems of circuit interruption
38	06.04.2023	Resistance switching. Circuit Breaker Rating.
39	08.04.2023	PROTECTIVE RELAYS

		Definition of Protective Relay, Fundamental requirement of protective relay.
40	08.04.2023 (3:00 pm-04:00 pm)	Recall of period no. 36 to 39
41	10.04.2023	Basic Relay operation Electromagnetic Attraction type & Induction type
42	11.04.2023	Definition of following important terms. Pick-up current. Current setting. Plug setting Multiplier. Time setting Multiplier
43	12.04.2023	Classification of functional relays
44	13.04.2023	Induction type over current relay (non-directional)
45	15.04.2023	Recall of period no. 41 to 44
46	15.04.2023 (3:00 pm-04:00 pm)	Induction type directional power relay.
47	17.04.2023	Induction type directional over current relay.
48	18.04.2023	Differential relay Current differential relay Voltage balance differential relay
49	19.04.2023	Types of protection
50	20.04.2023	Recall of period no. 46 to 49
51	22.04.2023	PROTECTION OF ELECTRICAL POWER EQUIPMENT AND LINES Protection of alternator, Differential protection of alternators
52	22.04.2023 (3:00 pm-04:00 pm)	Balanced earth fault protection.
53	24.04.2023	Protection systems for transformer
54	25.04.2023	Buchholz relay
55	26.04.2023	Recall of period no. 51 to 54
56	27.04.2023	Protection of Busbar. Protection of Transmission line.
57	29.04.2023	Different pilot wire protection (Merz-price voltage Balance system)
58	29.04.2023 (3:00 pm-04:00 pm)	Explain protection of feeder by over current and earth fault relay
59	01.05.2023	PROTECTION AGAINST OVER VOLTAGE AND LIGHTING Voltage surge and causes of overvoltage

60	02.05.2023	Recall of period no. 56 to 59
61	03.05.2023	Internal cause of over voltage. External cause of over voltage(lightning)
62	04.05.2023	Mechanism of lightningdischarge
63	06.05.2023	Types of lightningstrokes. Harmful effect oflightning
64	08.05.2023	Lightning arresters and Type of lightning Arresters Rod-gap lightningarrester.
65	09.05.2023	Recall of period no. 61 to 64
66	10.05.2023	Horn-gaparrester & Valve typearrester
67	11.05.2023	SurgeAbsorber
68	13.05.2023	STATIC RELAY Advantage of static relay
69	15.05.2023	Instantaneous over currentrelay
70	16.05.2023	Recall of period no. 65 to 69
71	17.05.2023	Principle of IDMTrelay
72	18.05.2023	Previous year questions discussion
73	20.05.2023	Previous year questions discussion
74	22.05.2023	Previous year questions discussion
75	23.05.2023	Previous year questions discussion


 Signature of the Faculty


 Signature of the HOD