

Lesson Plan

Subject SGPD (Code) Th-2 Name of faculty Saumya Karan
 Semester 6th Class allotted 04P/week Branch Electrical Engg.

| Discipline | Semester | From date: 10/03/22 To date: 10/06/22 | Teaching Aid |
|------------|-----------------------|--|----------------------------|
| Subject: | No. of days/ per week | Theory/ Practical - Topics/Lesson | |
| Week | Date/Period | | |
| 1 | 10/03/22 | Essential features of Switchgear | whole board & marker |
| | 11/03/22 | Switchgear Equipment Bus-Bar Arrangement Switchgear Accommodation Short circuit | |
| | | | |
| 2 | 14/03/22 | Fault in a power system | " |
| | 15/03/22 | Symmetrical fault on 3- ϕ system | |
| | 16/03/22 | Limitation of fault current | |
| | 17/03/22 | Percentage Reactance % Reactance and Base KVA | |
| 3 | 21/03/22 | Short-ckt KVA | " |
| | 22/03/22 | Reasons for short-circuit current | |
| | 23/03/22 | Location of reactors | |
| | 24/03/22 | Steps for symmetrical fault calculations | |
| | 25/03/22 | Solve numerical problems | |
| 4 | 28/03/22 | Desirable characteristics of fuse element | " |
| | 29/03/22 | Fuse element materials | |
| | 30/03/22 | Types of fuses and important terms used for fuses | |
| | 31/03/22 | Low and High voltage fuses | |
| 5 | 04/04/22 | Current carrying capacity of fuse element | " |
| | 05/04/22 | Diff. bet ⁿ fuse & a CB | |
| | 06/04/22 | Definition & principle of CB | |
| | 07/04/22 | Arc phenomenon & principle of Arc Extinction | |
| 6 | 11/04/22 | Methods of Arc Extinction | " |
| | 12/04/22 | Definitions of Arc voltage, Restriking voltage and Recovery voltage | |
| 7 | 13/04/22 | Classifications of CB | " |
| | 18/04/22 | Oil CB and its classification | |
| | 19/04/22 | Plain bakelite oil CB | |
| | 20/04/22 | Arc control oil CB | |
| | 21/04/22 | Low oil CB | |
| | 22/04/22 | | |

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|------|-------------|--|--------------|
| 8 | 25/04/22 | Maintenance of Oil CB | |
| | 26/04/22 | Air Blast CB and its Applications | |
| | 27/04/22 | Sulphur Hexa-fluoride (SF ₆) CB | White board |
| | 28/04/22 | Vacuum Circuit Breakers | A marker |
| | 29/04/22 | Switchgear Component | |
| 9 | 02/05/22 | Problems of ckt interruption | |
| | 04/05/22 | Resistance Switching | |
| | 05/05/22 | Circuit Breaker Rating | " |
| | 06/05/22 | Definition of protective Relay fundamental requirement of protective relay. | |
| 10 | 09/05/22 | Basic Relay operation | |
| | 10/05/22 | Electromagnetic Attraction type | |
| | 11/05/22 | Induction type | |
| | 12/05/22 | Definition of following important terms. | " |
| | 13/05/22 | Pick-up current, current setting | |
| 11 | 17/05/22 | Plug setting Multiplier | |
| | 18/05/22 | Time setting Multiplier | |
| | 19/05/22 | classification of fundamental relays. | " |
| 12 | 20/05/22 | Induction type over current relay | |
| | 23/05/22 | Induction type directional power relays | |
| | 24/05/22 | Induction type directional over current relay, | |
| | 25/05/22 | Current diff. relay, voltage balance diff. relay | |
| | 26/05/22 | Types of protection - Protection of alternator | " |
| 13 | 27/05/22 | diff. protection of alternator, balanced earth fault protection, protection system for T/F | |
| | 31/05/22 | Buchholz relay, protection of Bus-Bar. | |
| | | Protection of T.L. Diff. Protection protection | |
| | | Explain protection of feeder by OC & Earth fault relay. | " |
| 14 | | Voltage surge & causes of over voltage | |
| | | Internal cause of over voltage. | |
| | 01/06/22 | External cause of over voltage. mechanism of lightning discharge. Types of lightning strokes | |
| 15 | 02/06/22 | Harmful effect of lightning. Lightning arrester & types of LA. Rod-gap LA, Horn-gap LA, valve type arrester. | " |
| | 03/06/22 | | |
| 15 | 06/06/22 | Surge Absorber | |
| | 07/06/22 | Advantage Static relay | |
| | 08/06/22 | Instantaneous over current relay | " |
| | 09/06/22 | | |
| | 10/06/22 | Principle of IDMT relay. | |

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