

**SAMANTA CHANDRASEKHAR INSTITUTE  
OF TECHNOLOGY & MANAGEMENT**  
SEMILIGUDA-764 036, KORAPUT

DEPT. OF.....ELECTRICAL.....

**LESSON PLAN AND PROGRESS REGISTER**

(To be maintained by all members of the teaching staff)

SESSION.....2023-2024.....  
(4<sup>TH</sup> - GTD)  
(6<sup>TH</sup> - SGPD)

NAME.....Amita Pradhan.....  
DESIGNATION.....H.O.D.....  
DEPT.....Electrical.....

Amita Pradhan  
SIGNATURE

## LESSON PLAN

Degree/Diploma/+2 Scie  
(Theory/Pract/Lab/Worksh)

Semester

6<sup>TH</sup>

Branch

Electrical

| Month & Date               | Course No. & Title | Brief note of the topics to be covered | No. of semester<br>Classes<br>Require | Date | Cour<br>No. &<br>Title |
|----------------------------|--------------------|----------------------------------------|---------------------------------------|------|------------------------|
|                            | <u>TH-2</u>        | INTRODUCTION TO<br>SWITCH GEAR         |                                       |      |                        |
| 04/03/24                   |                    | 1.1) Switch gear equipment             | 01                                    |      |                        |
|                            |                    | Bus Bar arrangement                    |                                       |      |                        |
| 06/03/24<br>to<br>07/03/24 |                    | → Switch Gear accommodation            | 02                                    |      |                        |
|                            |                    | → Symmetrical faults                   |                                       |      |                        |
| 11/03/24<br>12/03/24       |                    | a 3- $\phi$<br>in Power System         | 02                                    |      |                        |
| 13/03/24                   |                    | → Short ckt faults                     | 03                                    |      |                        |
| 14/03/24<br>15/03/24       |                    | in Power System                        |                                       |      |                        |
| 18/03/24                   |                    | → Limitation of Fault Current          | 01                                    |      |                        |
| 19/03/24                   |                    | → Percentage reactance                 | 01                                    |      |                        |
|                            |                    | Base KVA                               |                                       |      |                        |
| 20/03/24                   |                    | → Short - ckt KVA                      | 01                                    |      |                        |
|                            |                    | → Reaction control of                  |                                       |      |                        |
| 21/03/24                   |                    | short - circuit currents               | 01                                    |      |                        |
| 22/03/24                   |                    | → Location of Reactors                 | 01                                    |      |                        |

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Semester

6<sup>th</sup>

Branch

Electrical

| Month & Date | Course No. & Title | Brief note of the topics to be covered      | No. of Classes Required |
|--------------|--------------------|---------------------------------------------|-------------------------|
| 27/03/24     | TH-2               | → Steps for symmetrical fault calculation   | 01                      |
| 28/03/24     |                    | → Numerical Problems                        | 01                      |
|              |                    | 2) FUSES                                    |                         |
| 02/04/24     |                    | → Desirable characteristics of fuse element | 01                      |
|              |                    | → Fuse element materials                    |                         |
| 03/04/24     |                    | → Types of fuses &                          | 01                      |
|              |                    | → Important terms                           |                         |
| 04/04/24     |                    | → Low Voltage Fuse                          | 01                      |
|              |                    | → Current carrying capacity of Fuse element |                         |
| 05/04/24     |                    | → Difference between Fuse & CB              | 01                      |
| 08/04/24     |                    | → Definition & principle of CB              | 01                      |
| 09/04/24     |                    |                                             |                         |

Semester

6<sup>th</sup>

Date Course No. & Title No. of Studen Present

# LESSON PLAN

Degree/Diploma/+2 Sch  
(Theory/Pract/Lab/Work)

Semester

6<sup>th</sup>

Branch

Electrical

| Month & Date | Course No. & Title | Brief note of the topics to be covered  | No. of Classes Required |
|--------------|--------------------|-----------------------------------------|-------------------------|
| 10/04/24     | TH-2               | ARC Phenomenon<br>→ ARC Extinction      | 01                      |
| 12/04/24     |                    | Arc Voltage &<br>→ Restriking Voltage   | 01                      |
|              |                    | → CB classification                     |                         |
|              |                    | OCB & its<br>→ classification           |                         |
| 15/04/24     |                    | → Plain Break OCB                       | 01                      |
| 16/04/24     |                    | Arc Control OCB<br>→ Low oil OCB        | 01                      |
| 18/04/24     |                    | Air Blast &<br>→ CB classification      | 01                      |
| 19/04/24     |                    | → SF <sub>6</sub> CB                    | 01                      |
| 22/04/24     |                    | → VCB Switchgear component              | 01                      |
| 23/04/24     |                    | Problems of<br>→ circuit interruption   | 01                      |
| 24/04/24     |                    | → Resistance Switching                  | 01                      |
|              |                    | → CB Rating                             |                         |
|              |                    | 5) PROTECTIVE RELAYS                    |                         |
| 25/04/24     |                    | → Features of good<br>protective system | 01                      |

Semester

Date

Course No. & Title

No. of Students Present

# LESSON PLAN

Degree/Diploma/+2 Sci  
(Theory/Pract/Lab/Worksh)

Electrical

Semester

6<sup>th</sup>

Branch

| Month & Date | Course No. & Title | Brief note of the topics to be covered                           | No. of Classes Required | semester | Date | Course No. & Title |
|--------------|--------------------|------------------------------------------------------------------|-------------------------|----------|------|--------------------|
| 26/04/24     | TH-2               | → Primary Protection<br>Back-up protection                       | 01                      |          |      |                    |
| 29/04/24     |                    | → Types of Relay                                                 | 01                      |          |      |                    |
| 30/04/24     |                    | → Protection of feeders<br>by overcurrent &<br>Earth Fault Relay | 01                      |          |      |                    |
| 01/05/24     |                    | → Directional relay &<br>its application                         | 01                      |          |      |                    |
| 02/05/24     |                    | → Merg-Price circulating<br>current principle                    | 01                      |          |      |                    |
| 03/05/24     |                    | → Bias differential relay.                                       | 01                      |          |      |                    |
| 06/05/24     |                    | → Buchholz relay                                                 | 01                      |          |      |                    |
| 07/05/24     |                    | 6) LIGHTENING ARRESTORS                                          | 01                      |          |      |                    |
| 08/05/24     |                    | → Lightning arrestors                                            | 01                      |          |      |                    |
| 08/05/24     |                    | → Surge Divertors                                                | 01                      |          |      |                    |
| 09/05/24     |                    | → Explain concept of                                             |                         |          |      |                    |

# LESSON PLAN

Degree/Diploma/42 S  
(Theory/Pract/Lab/Work)

Electrical

| Semester     | 6 <sup>th</sup>    | Branch                                 |                       |
|--------------|--------------------|----------------------------------------|-----------------------|
| Month & Date | Course No. & Title | Brief note of the topics to be covered | No. of Class Required |
| 10/05/24     | TH-2               | Lightening phenomena                   | 01                    |
|              |                    | → Explain necessity of                 |                       |
| 13/05/24     |                    | protection against                     | 02                    |
| 14/05/24     |                    | lightening in power system             |                       |
|              |                    | → Explain principle of                 |                       |
| 15/05/24     |                    | Horn Gap lightening                    | 01                    |
|              |                    | arrestors                              |                       |
|              |                    | → INTRODUCTION TO                      |                       |
|              |                    | STATIC RELAYS                          |                       |
| 16/05/24     |                    | → State advantages of                  | 01                    |
|              |                    | Static Relays                          |                       |
|              |                    | → Explain instantaneous                |                       |
| 20/05/24     |                    | over current relay                     | 01                    |
| 21/05/24     |                    | → Explain the working                  | 01                    |
|              |                    | principle                              |                       |

## LESSON PLAN

Degree/Diploma/+2 Sc  
(Theory/Pract/Lab/Works

Semester..

6th

Branch

# Electrical

[illegible]