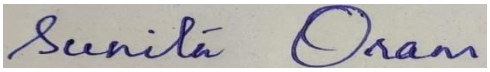
ACADEMIC LESSON PLAN OF WINTER 2023

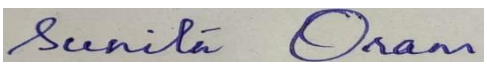
Discipline: **ELECTRICAL**	Semester:5TH Sem (SEC-A(G-1))	Name of the Teaching Faculty: Smt. SUNITA ORAM
Subject: **POWER ELECTRONICS & PLC LAB**	No. of days/per week class allotted: 1p(3hr)/week	Semester From: 1st Aug 2023 to 30th Nov 2023 No. of Weeks: 17 weeks
1st	1st	**(I) Power Electronics** 1. Study of switching characteristics of a power transistor
2nd	1st	2. Study of V-I characteristics of SCR
3rd	1st	3. Study of V-I characteristics of TRIAC
4th	1st	4. Study of V-I characteristics of DIAC
5th	1st	5. Study of drive circuit for SCR & TRIAC using DIAC
6th	1st	6. Study of drive circuit for SCR & TRIAC using UJT.
7th	1st	7. To study phase controlled bridge rectifier using resistive load
8th	1st	8. To study series Inverter.
9th	1st	9. Study of voltage source Inverter.
10th	1st	10. To perform the speed control of DC motor using Chopper
11th	1st	11. To study single-phase Cyclo-converter.
12th	1st	**(II) PLC Programming** 1. Introduction/Familiarization PLC Trainer & its Installation with PC (a) Learn the basics and hardware components of PLC (b) Understand configuration of PLC system (c) Study various building blocks of PLC (d) Determine the No. of digital I/O & Analog I/O
13th	1st	2. Execute the different Ladder Diagrams (a) Demonstrate PLC and Ladder diagram-Preparation downloading and running (b) Execute Ladder diagrams for different Logical Gates (c) Execute Ladder diagrams using timers & counters
14th	1st	3. Execute the Ladder Diagrams with model applications (i) DOL starter (ii)Star- Delta starter
15th	1st	4. Execute Ladder diagrams with model applications (i) Stair case lighting (ii) Traffic light controller
16th	1st	Revision Class
17th	1st	Revision Class



Signature of Teaching Faculty

ACADEMIC LESSON PLAN OF WINTER 2023

Discipline: **ELECTRICAL**	Semester:5TH Sem (SEC-A(G2))	Name of the Teaching Faculty: Smt. SUNITA ORAM
Subject: **POWER ELECTRONICS & PLC LAB**	No. of days/per week class allotted: 1p(3hr)/week	Semester From: 1st Aug 2023 to 30th Nov 2023 No. of Weeks: 17 weeks
1st	1st	**(I) Power Electronics** 1. Study of switching characteristics of a power transistor
2nd	1st	2. Study of V-I characteristics of SCR
3rd	1st	3. Study of V-I characteristics of TRIAC
4th	1st	4. Study of V-I characteristics of DIAC
5th	1st	5. Study of drive circuit for SCR & TRIAC using DIAC
6th	1st	6. Study of drive circuit for SCR & TRIAC using UJT.
7th	1st	7. To study phase controlled bridge rectifier using resistive load
8th	1st	8. To study series Inverter.
9th	1st	9. Study of voltage source Inverter.
10th	1st	10. To perform the speed control of DC motor using Chopper
11th	1st	11. To study single-phase Cyclo-converter.
12th	1st	**(II) PLC Programming** 1. Introduction/Familiarization PLC Trainer & its Installation with PC (a) Learn the basics and hardware components of PLC (b) Understand configuration of PLC system (c) Study various building blocks of PLC (d) Determine the No. of digital I/O & Analog I/O
13th	1st	2. Execute the different Ladder Diagrams (a) Demonstrate PLC and Ladder diagram-Preparation downloading and running (b) Execute Ladder diagrams for different Logical Gates (c) Execute Ladder diagrams using timers & counters
14th	1st	3. Execute the Ladder Diagrams with model applications (i) DOL starter (ii)Star- Delta starter
15th	1st	4. Execute Ladder diagrams with model applications (i) Stair case lighting (ii) Traffic light controller
16th	1st	Revision Class
17th	1st	Revision Class



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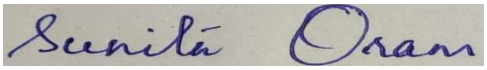
ACADEMIC LESSON PLAN OF WINTER 2023

Discipline: **ELECTRICAL**	Semester:5TH Sem (SEC-B)	Name of the Teaching Faculty: Smt. SUNITA ORAM
Subject: **POWER ELECTRONICS & PLC LAB**	No. of days/per week class allotted: 1p(3hr)/week	Semester From: 1st Aug 2023 to 30th Nov 2023 No. of Weeks: 17 weeks
1st	1st	**(I) Power Electronics** 1. Study of switching characteristics of a power transistor
2nd	1st	2. Study of V-I characteristics of SCR
3rd	1st	3. Study of V-I characteristics of TRIAC
4th	1st	4. Study of V-I characteristics of DIAC
5th	1st	5. Study of drive circuit for SCR & TRIAC using DIAC
6th	1st	6. Study of drive circuit for SCR & TRIAC using UJT.
7th	1st	7. To study phase controlled bridge rectifier using resistive load
8th	1st	8. To study series Inverter.
9th	1st	9. Study of voltage source Inverter.
10th	1st	10. To perform the speed control of DC motor using Chopper
11th	1st	11. To study single-phase Cyclo-converter.
12th	1st	**(II) PLC Programming** 1. Introduction/Familiarization PLC Trainer & its Installation with PC (a) Learn the basics and hardware components of PLC (b) Understand configuration of PLC system (c) Study various building blocks of PLC (d) Determine the No. of digital I/O & Analog I/O
13th	1st	2. Execute the different Ladder Diagrams (a) Demonstrate PLC and Ladder diagram-Preparation downloading and running (b) Execute Ladder diagrams for different Logical Gates (c) Execute Ladder diagrams using timers & counters
14th	1st	3. Execute the Ladder Diagrams with model applications (i) DOL starter (ii)Star- Delta starter
15th	1st	4. Execute Ladder diagrams with model applications (i) Stair case lighting (ii) Traffic light controller
16th	1st	Revision Class
17th	1st	Revision Class



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