



**LESSON PLAN-2023(WINTER 2023)**  
**SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR**


Discipline- ELECTRICAL	Semester-5TH	Name of teaching faculty- SUBASH CH. SWAIN
SUBJECT- UEET	No of days/ per week class allotted-5	SEM From date-01/08/2023 No of weeks-17
Week	Class day	Theory Topics-Utilization of Electrical Energy & Traction
1ST	01.08.2023	1.1. Definition and Basic principle of Electro Deposition.
	02.08.2023	1.2. Important terms regarding electrolysis.
	03.08.2023	1.3. Faraday's Laws of Electrolysis.
	04.08.2023	1.4. Definitions of current efficiency, Energy efficiency.
	07.08.2023	1.5. Principle of Electro Deposition.
2ND	08.08.2023	Do
	09.08.2023	1.6. Factors affecting the amount of Electro Deposition.
	10.08.2023	1.7. Factors governing the electrodeposition.
	11.08.2023	1.8. States simple example of extraction of metals.
	12.08.2023	1.9. Application of Electrolysis.
	14.08.2023	CLASS TEST
	16.08.2023	2.1. Advantages of electrical heating.
3RD	17.08.2023	2.2. Mode of heat transfer and Stephen's Law.
	18.08.2023	2.3. Principle of Resistance heating. (Direct resistance and indirect resistance heating.)
	19.08.2023	do
	21.08.2023	2.4. Discuss working principle of direct arc furnace.
	22.08.2023	indirect arc furnace
4TH	23.08.2023	2.5. Principle of Induction heating.
	24.08.2023	2.5.1. Working principle of direct core type, vertical core type
	25.08.2023	indirect core type Induction furnace.
	26.08.2023	2.5.2. Principle of coreless induction furnace and skin effect.
	28.08.2023	2.6. Principle of dielectric heating and its application.
	29.08.2023	2.7. Principle of Microwave heating and its application.
	30.08.2023	Do
31.08.2023	CLASSTEST	

	01.09.2023	3.1 Explain principle of arc welding.
	02.09.2023	3.2 Discuss D.C. & A.C. Arc phenomena
1ST	04.09.2023	3.4 Types of arc welding
	05.09.2023	Do
	06.09.2023	3.5. Explain principles of resistance welding
	07.09.2023	do
	08.09.2023	3.6. Descriptive study of different resistance welding methods.
	09.09.2023	Do
2ND	11.09.2023	CLASS TEST
	12.09.2023	4.1 Nature of Radiation and its spectrum.
	13.09.2023	4.2 Terms used in illuminations. [Lumen, Luminous intensity,
	14.09.2023	Intensity of illumination, MHCP, MSCP, MHSCP
	15.09.2023	Solid angle, Brightness, Luminous efficiency.
	16.09.2023	4.3. Explain the inverse square law and the cosine law.
3RD	18.09.2023	4.5 Describe light distribution and control.
	20.09.2023	Explain related definitions like maintenance factor and depreciation factor
	21.09.2023	4.6. Design simple lighting schemes and depreciation factor.
	22.09.2023	4.7. Constructional feature and working of filament lamps
	23.09.2023	DO
4TH	25.09.2023	effect of variation of voltage on working of filament lamps.
	26.09.2023	4.8. Explain Discharge lamps.
	27.09.2023	4.9. State basic idea about excitation in gas discharge lamps.
	28.09.2023	4.10. State constructional features and operation of Fluorescent lamp.
	30.09.2023	Do
1ST	03.10.2023	4.11. Sodium vapor lamps. 4.12. High pressure mercury vapor lamps
	04.10.2023	4.13. Neon sign lamps.
	05.10.2023	4.14. High lumen output & low consumption fluorescent lamps
	06.10.2023	DO
	07.10.2023	CLASSTEST
2ND	09.10.2023	Question Discussion
	10.10.2023	INTERNAL
	11.10.2023	INTERNAL
	12.10.2023	INTERNAL
	13.10.2023	INTERNAL
	14.10.2023	INTERNAL

3RD	16.10.2023	5.1 State group and individual drive.
	17.10.2023	5.2 Method of choice of electric drives
	18.10.2023	5.3. Explain starting and running characteristics of DC and AC motor.
	19.10.2023	5.4. State Application of: 5.4.1 DC motor.
	20.10.2023	5.4.2.3 phase synchronous motors
	30.10.2023	5.4.3.3-phase induction motor.
	31.10.2023	5.4.4. Single phase induction, series motor
1ST	01.11.2023	5.4.5. Universal motor and repulsion motor.
	02.11.2023	CLASSTEST
	03.11.2023	6.1. Explain system of traction.
	04.11.2023	6.2. System of Track electrification.
2ND	06.11.2023	6.3. Running Characteristics of DC and AC traction motor.
	07.11.2023	6.4. Explain control of motor: 6.4.1. Tapped field control.
	08.11.2023	6.4.2. Rheostatic control.
	09.11.2023	6.4.3. Series parallel control.
	10.11.2023	6.4.4. Multi-unit control.
	11.11.2023	6.4.5. Metadyne control.
3RD	13.11.2023	CLASSTEST
	14.11.2023	Previous year question discussion
	15.11.2023	Revision of chapter 1
	16.11.2023	Do
	17.11.2023	Do
	18.11.2023	Previous year question discussion
4TH	20.11.2023	Revision of chapter 2,3
	21.11.2023	Do
	22.11.2023	Do
	23.11.2023	Previous year question discussion
	24.11.2023	Previous year question discussion
	25.11.2023	Previous year question discussion
	27.11.2023	Previous year question discussion
	28.11.2023	2&5 Mark question discussion
	29.11.2023	2&5 Mark question discussion
	30.11.2023	2&5 Mark question discussion

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