

# G.VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS)

(Re-Accredited with "A" Grade by NAAC)

Department of B.Sc., Physics

## U23PH6OE - PHYSICS IN DAY TO DAY LIFE

Course Code	Course Title	Category	Lecture	Tutorial	Practical	Credit
U23PH6OE	PHYSICS IN DAY TO DAY LIFE	OPEN ELECTIVE	0	0	0	3

Year	Semester	Internal Marks (CIA)	External Marks (ESE)	Total Marks
III	VI	0	100	100

### Course Objective

- This course is to provide foundational knowledge and practical insights into the operation and application of common electrical systems and appliances used in households

### Course Outcomes (COs)

On the completion of the course the student will be able to

CO	Course Outcome	Knowledge Level (RBT)
CO1	understand the principle, classification, and losses of transformers.	K1,K2,K3,K4,K5
CO2	demonstrate knowledge of lighting systems and small domestic appliances.	K1,K2,K3,K4,K5
CO3	understand the operation of heating and cooking appliances.	K1,K2,K3,K4,K5
CO4	explain the functioning of major household electrical appliances.	K1,K2,K3,K4,K5
CO5	understand the role of protection devices and power backup systems.	K1,K2,K3,K4,K5

K1–Remember; K2–Understand; K3–Apply; K4–Analyze; K5–Evaluate; K6–Create

### CO-PO and CO-PSO Mapping (Course Articulation Matrix)

COs	POs							PSOs		
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
Total	0	0	0	0	0	0	0	0	0	0

(3-Strong, 2-Medium, 1-Low, -No Correlation)

### Course Content

#### UNIT 1 Transformer

Self Study Course

Transformer – Principle and working – Classification of transformers-Losses in transformer.

#### UNIT 2 Lighting and Household Electrical Appliances

Self Study Course

Electric bulbs –Fluorescent lamps – Street lighting – Electric fans- Mixer.

#### UNIT 3 Heating and Cooking Appliances

Self Study Course

Water Heater – storage and instant types – Electric iron box – Microwave oven.

#### UNIT 4 Major Household Appliances

Self Study Course

Washing machine – Stabilizer – Refrigerator and Air conditioner.

#### UNIT 5 Electrical Protection and Power Backup Devices

Self Study Course

Relays, Fuses, Electrical switches –Inverter, UPS-generator and motor.

### Reference Books

1. Jose Robin.G & Ubald Raj.A, Maintenance of Electrical Appliances, Indira Publications,Marthandam,
2. Jose Robin.G & Ubald Raj.A, Maintenance of Electronic Equipments, Indira Publications,Marthandam,

#### Web Resources

1. <https://nptel.ac.in/courses/108106071>
2. [https://onlinecourses.swayam2.ac.in/nou23\\_ge80/preview](https://onlinecourses.swayam2.ac.in/nou23_ge80/preview)