



MONTH	UNITS	TOPICS COVERED	PRACTICAL
		THEORY	
Jul-25	Current Electricity	Electricity as a source of energy, Definition of Resistance, Voltage, Current, Power, Energy and their units, Relation between electrical, mechanical and thermal units, Factors affecting resistance of a conductor, Temperature co-efficient of resistance, Difference between AC and DC voltage and current.	Verify that resistance of conductor is directly proportional to resistivity and length and inversely proportional to cross-sectional area of the conductor.
	D. C. Circuits	Ohm's Law, Series – parallel resistance circuits, calculation of equivalent resistance, Kirchhoff's Laws and their applications	Verification of Ohm's Law. Verification of temperature co-efficient of resistance: (i) Positive for Tungsten and Nichrome and (ii) Negative for carbon.
	UNIT 1: COMMUNICATION SKILLS – III	written, verbal and non-verbal communication Tenses, verbs and adjective # Methods of communication Verbal Non-verbal Visual, Communication styles assertive, aggressive, passive aggressive, submissive, etc	Writing pros and cons of written, verbal and non-verbal communication Draw a diagram depicting the parts of speech.
		Activity/Q&A	
Aug-25	Electric Cells	Primary cell, wet cell, dry cell, battery, series and parallel connections of cells, Secondary cells, Lead Acid Cell, Discharging and recharging of cells, common charging methods, preparation of electrolyte, care and maintenance of secondary cells	Preparation of Electrolyte for lead acid battery and its charging and measurement of Specific gravity with the help of hydrometer. To find heat efficiency of an electric kettle.
	Heating and Lighting Effects of Current	Joule's Law of electric heating and its domestic applications, heating efficiency, lighting effect of electric current, filaments used in lamps, and gaseous discharge lamps, their working and applications.	
	UNIT 2: SELF - MANAGEMENT SKILLS – III	# Describe the importance of dressing appropriately, looking decent and positive body language, # Describe the term grooming, # Prepare a personal grooming checklist	
Sep-25	Capacitor	Capacitor and its capacity, Concept of charging and Discharging of capacitors, Types of Capacitors and their use in circuits, Series and parallel connection of capacitors, Energy stored in a capacitor.	Soldering & Desoldering of LED, switch, IC, Resistor, Capacitors etc.
	UNIT 3: INFORMATION AND COMMUNICATION TECHNOLOGY SKILLS – III	ICT: "# Software packages for word processing, Opening and exiting the word processor, Creating a document, Numbering and bullet, Creating table, Find and replace, Page numbering, Printing document, Saving a document in various formats.	
Oct-25	Electromagnetic Effects	Permanent magnets and Electromagnets, their construction and use, Polarities of an electromagnet and rules for finding them. Faraday's Laws of Electromagnetic Induction, Dynamically induced e.m.f., its magnitude and induction, Static induction, self-induced e.m.f., its magnitude and direction, inductance and its unit, Mutually induced e.m.f., its magnitude and direction, Energy stored in an inductance. Force acting on a current carrying conductor in magnetic field, its magnitude and direction, Torque produced on a current carrying coil in a magnetic field, Principles and construction of dynamo.	Measurement of resistance by ammeter and voltmeter method and Ohm meter. Dismantling and reassembly of dynamo. Calibration of ammeter, voltmeter and wattmeter with the help of standard meters.
	UNIT 4: ENTREPRENEURIAL SKILLS- III	4. Functions, characteristics, types of Entrepreneurial skills etc.	
	MID TERM EXAMINATION		
Nov-25	A.C Circuits	Generation of A.C. voltage, its generation and wave shape. Cycle, frequency, peak value (maximum value), average value, instantaneous value, R.M.S. value, form factor, crest factor, phase, phase difference, power and power factor, A.C. Series Circuits with (i) resistance and inductance (ii) resistance and capacitance and (iii) resistance inductance and capacitance, Q factor of R.L.C. series circuits.	Study of series resistive circuits. Study of parallel resistive circuits
	Soldering and Brazing	General characteristics of soldering & Desoldering, tools & procedures, adopted for soldering & Desoldering, brazing joints, processes and their characteristics, brief description of soldering and brazing tools equipment, types of solders and fluxes and their uses, soldering defects and their remedies, brazing materials, advantages and disadvantages of soldering and brazing.	
	Unit-5 Green Skills-III	Green Skills: Relationship between society and environment, ecosystem and factors causing imbalance Natural resource conservation Environment protection and conservation	

Dec-25	Measuring Instruments	Construction and working principles of moving iron and moving coil voltmeters and ammeters, dynamometer type wattmeter, ohm meter, megger and induction type energy meter- their circuit connection and application for measurement of electrical quantities, Digital Multimeter.	Charging and Discharging of a capacitor Study of R.L. series circuit and measurement of power and power factor.
	Electrical Engineering Drawing	Schematic and wiring diagram for domestic simple wiring, symbols used for different electrical devices and equipments.	Study of R.C. series circuit and measurement of power and power factor.
	Electrical wiring	Types of wiring – cleat wiring, casing and capping, C.T.S./T.R.S. wiring, metal sheath wiring, conduit wiring and concealed wiring – their procedure.	
Jan-26			
	Electrical wiring	Factors of selection of a particular wiring system, importance of switch, fuse and earthing of wiring system, types of faults, their causes and remedies. Types of earthing- plate earthing and Pipe earthing, their procedure and application. Methods of finding numbers of circuits and circuit distribution by distribution board system, loop in system of wiring connections IE rules related to wiring..	Practicals
Feb-26	REVISION:ELECTRICAL TECHNOLOGY and Employability skills chapters	REVISION OF ELECTRICAL TECHNOLOGY	
	REVISION	REVISION OF Employability skills	
	REVISION	Revision SA - 2 Exam	
Mar-26	1. Annual Exams of students 2. Duty In Exams 3. Evaluation duty	Revision SA - 2 Exam	