

MONTH	UNITS	TOPICS COVERED	
		THEORY	PRACTICAL
Jul-25		1. Orientation of vocational education and Enrolment of Students in Air Conditioning & Refrigeration. 2. Maintain Students data (Enrolment and attendance) in Instructor register. 3. Creating WhatsApp Group of class students for important information. 4. Submit requirement of books as per the students head count & Book distribution 5. Working on Lesson Plan of the theory and practical 6. Monthly meeting with the Principal and Project Coordinator. 7. Submit Form 001/monthly report, Next Month's Plan, Monthly Attendance.	Group discussion on scope of Air Conditioning & Refrigeration Study of tools and materials, instruments and gauges. To study the safety measures to be taken in a workshop
	UNIT 1: Meaning of Air Conditioning & Refrigeration	Introduction – Scope of Air Conditioning & Refrigeration # Career opportunities in Air Conditioning & Refrigeration # Qualities required in a personnel willing to join Air Conditioning & Refrigeration Industry Thermodynamics and Its laws, meaning of Air Conditioning and Refrigeration, Brief history of Air Conditioning and Refrigeration, general safety, Application of Refrigeration, Concept of System, its boundary, and surroundings, Unit of Refrigeration, specification and uses of Refrigeration tools, Equipment, Instruments, Basic knowledge of heat energy, Comparison of heat engine, heat pump and refrigeration machine. Rating of Refrigeration	Writing pros and cons of written, verbal and non-verbal communication Draw a diagram depicting the parts of speech.
	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.	Activity/Q&A
			Activity/Q&A
Aug-25	UNIT 2: REFRIGERATION CYCLE AND APPLICATIONS	Vapour Compression Cycle, Representation of Vapour Compression Cycle on temperature– entropy and pressure– enthalpy diagram, Effect of sub-cooling, Super heating, change in suction pressure and discharge pressure on coefficient of performance, Deviation of actual cycle from the theoretical cycle. (ii) Working of a Domestic Refrigerator, water cooler & Deep Freezer, Refrigeration tools and materials, tubing, cutting, bending, flaring, joining, swaging, instruments and gauges.	To learn proper techniques of cutting, fitting, reaming, bending, flaring of soft and hard copper Tubing, swaging etc. To learn brazing of copper tubing.
	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	UNIT 3: COMPRESSOR/UNIT 3: INFORMATION AND COMMUNICATION TECHNOLOGY SKILLS – III	Meaning of Compressors, Types of compressor-reciprocating (semi-hermetic, hermetic and open types), rotary, centrifugal and screwed type, working of compressor. (ii) Compressor construction, valves, piston, connecting rods, crankshafts, seals, oil circulation, hermetic and semi-hermetic units, cooling of windings, Mufflers 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.	To study a hermetic unit and it's testing. Study of various types of compressors, dismantling and assembling of compressors.
Oct-25	UNIT 4: BASIC ELECTRICITY:/ UNIT 4: ENTREPRENEURIAL SKILLS- III	Meaning of Alternating current, D.C. Current and difference between them, Voltage, phase difference, Knowledge of Ohm's law and its representation on V- I graph, Resistance and its unit, measurement of current, voltage and power.	Measurement of voltage, current, power etc. Making electric circuit diagrams for refrigerators and Air-conditioner
		4. Functions, characteristics, types of Entrepreneurial skills etc.	
MID TERM EXAMINATION			
Nov-25	UNIT 5: PSYCHROMETRY AND HUMAN COMFORT/Unit-5 Green Skills- III	Psychrometry, composition of air, moist air, vapours and gases, specific humidity, absolute humidity, degree of saturation, relative humidity, Dry Bulb Temperature, Wet bulb Temperature, wet bulb depression, Dew point temperature, dew point depression. Green Skills: Relationship between society and environment, ecosystem and factors causing imbalance Natural resource conservation Environment protection and conservation	To study Domestic Refrigerator and water cooler. Study of window, split and package type air-conditioner
Dec-25	UNIT 5: PSYCHROMETRY AND HUMAN COMFORT	Human comfort, concept of effective temperature, comfort zone	Charging and testing of Air-Conditioner.
	UNIT 6: APPLICATION OF AIR CONDITIONING, MEASUREMENT OF AIR VELOCITY AND FLOW:	Applications of Air Conditioning, comfort, industrial and process Air Conditioning, study of window type air conditioners, package units, Central Air conditioning plants.	

Jan-26	UNIT6:APPLICATION OF AIR CONDITIONING, MEASUREMENT OF AIR VELOCITY AND FLOW:	Measurement of air velocity and flow.	Practicals
Feb-26	REVISION: Air Conditioning & Refrigeration and Employability skills chapters	REVISION OF Air Conditioning & Refrigeration	
	REVISION	REVISION OF Employability skills	
	REVISION	Revision SA - 2 Exam	
	REVISION	Revision SA - 2 Exam	
Mar-26	1. Annual Exams of students 2. Duty in Exams 3. Evaluation duty		