CBSE | DEPARTMENT OF SKILL EDUCATION CURRICULUM FOR SESSION 2024-2025

ELECTRONICS & HARDWARE (SUB. CODE -420)
JOB ROLE: FIELD TECHNICIAN - OTHER HOME APPLIANCES.

CLASS – IX & X

INTRODUCTION:

The learning outcome-based curriculum is a part of the vocational training for the job role of **Electronics & Hardware** – Field Technician Other Home Appliances**.** The curriculum has been developed for the secondary students of vocational skill education and is aligned to the National Occupation Standards (NOSs) of a job role identified and approved under the National Skill Qualification Framework (NSQF).

The curriculum aims to provide children with employability and vocational skills to support occupational mobility and lifelong learning. It will help them to acquire specific occupational skills that meet employers' immediate needs. The teaching process is to be performed through the interactive sessions in classrooms, practical activities in laboratories and workshops, projects, field visits, and professionalexperiences.

Benefits:

1) Technical nature of the program helps students to select choice of his/her future specialization. He/she is a jack of all skills and will be enabled to select one for his/her future.
2) Most importantly, the variety of experiences students gets during "Electronics and Hardware'' training will stimulate their intellect. Technical knowledge will help him to appreciate underlying principles and processes and apply that knowledge in new areas.
3) All home appliances repair level work activities need technical skills. For e.g. a Field technician need to have basic knowledge of wiring, circuitry, and health & safety. This helps him to become self-reliant under adverse conditions.

COURSE OVERVIEW:

Field Technician & Other Home Appliances

Field Technician & Other Home Appliances also called, 'Home Appliance Repair Technician'; this is an after sales-service job for installing and providing support to the Mixer grinder/juicer, microwave oven, buyers. The individual at work installs the appliances and interacts with customers to diagnose the problem and possible causes. The job requires the individual to have ability to build interpersonal relationships and trustworthiness. The individual must be willing to travel to client premises in order to attend to calls at different locations.

COURSE OBJECTVIES:

In this course, the students will be introduced to the fundamental concepts of Basic Electrical and Electronics, Electronics Components, Installation, Repair & Maintenance of Water Purifier, Maintaining Health & Safety Measures.

The following are the main objectives of the course:

- To introduce the students about the basic of Electrical and Electronics concepts.
- To develop a practical knowledge about the working of various electrical components & tools.
- To provide an in-depth training about the installation of water purifier.
- Repair dysfunctional Water purifier.
- To give a brief idea to engage with customer for service of water purifier.
- To aware the students about various workplace hazards and safety measures.
- To make the students capable of getting employment in Private sector, public sector.

COURSE OUTCOMES:

On completion of the course, students should be able to:

1) Apply effective oral and written communication skills to interact with people and customers;
2) Identify the principal components of a computer system;
3) Demonstrate the basic skills of using computer;
4) Demonstrate self-management skills;
5) Demonstrate the ability to provide a self-analysis in context of entrepreneurial skills and abilities;
6) Demonstrate the Knowledge of the importance of green skills in meeting the challenges of sustainable development and environment protection;
7) Engage with customer for service;
8) Install the water purifier;
9) Repair dysfunctional water purifier;
10) Repair dysfunctional mixer/juicer/grinder;
11) Repair dysfunctional microwave oven;
12) Carry out cables connections.

SALIENT FEATURES OF THE COURSE:

CLASS IX- To be an Electronics & Hardware Field technician, one requires a lot of hard work and practical hands-on skill experience. One should have an intense knowledge on electronics components and tools' functions and how to measures different parameters. Along with this, as an Electronics & Hardware Field Technician, you will be expected to have intense knowledge on safety measures on handling various tools and equipment.

As a Field Technician, one should improve their basic electrical Skills. These skills can help one to expand into a new career path in the future. Students will develop following skills:

- ❖ It will empower students with various skills required to work efficiently with electronic components.
- ❖ To develop a practical knowledge about basic electrical circuits.
- ❖ To develop knowledge about safety measures.
- ❖ Understanding the installation, troubleshooting of water purifier.

CLASS X- To be a Field technician, one requires a lot of hard work and practical hands-on-skill experience. The course will skill the students to practically analyse various troubleshooting methods.

Content of the course has been designed as such to make students skilled on troubleshooting various home appliances and be able to handle different electrical tools. Students will develop following skills:

- It will empower students with various skills required to work efficiently with electrical tools.
- To develop a practical knowledge about over current protection devices.
- Understand basic concept of working of motor.
- Recognize various working model of mixer, juicer.
- Skills for troubleshooting of mixer, juicer.
- Understand working concept and troubleshooting of microwave oven.
- Develop skills on safety measures on various hazards related to workplace.

This course will help students to expand into a new career path in the future.

Curriculum:

This course is a planned sequence of instructions consisting of Units meant for developing employability and vocational competencies of students of CLASS IX-X opting for vocational subject along with general education subjects.

Theory	50 marks
Practical	50 marks
Total Marks	100 marks

SCHEME OF UNITS:

This course is a planned sequence of instructions consisting of units meant for developing employability and vocational competencies of students of Class X opting for skill subject along with other education subjects.

The unit wise distribution of hours and marks for class IX is as follows:

ELECTRONICS & HARDWARE (SUBJECT CODE - 420)

Class IX (Session 2024-2025)

Total Marks: 100 (Theory-50 + Practical-50)

	UNITS	NO. OF HOURS for Theory and Practical 200		MAX. MARKS for Theory and Practical 100
Part A	**Employability Skills**			
	Unit 1 : Communication Skills-I	10		2
	Unit 2 : Self-Management Skills-I	10		2
	Unit 3 : ICT Skills-I	10		2
	Unit 4 : Entrepreneurial Skills-I	15		2
	Unit 5 : Green Skills-I	05		2
	Total	**50**		**10**
Part B	**Subject Specific Skills**	**Theory (In Hours)**	**Practical (In Hours)**	**Marks**
	Unit -1 : Basics of Electrical and Electronics	2	8	8
	Unit -2 :Electrical and Electronic Components	4	10	8
	Unit-3 :Tools and equipment	10	26	8
	Unit-4: Installing an RO Water purifier	18	35	4
	Unit-5: Repair and Maintenance of Water Purifier	7	20	4
	Unit-6: Maintain Health and Safety	3	7	8
	Total	**44**	**106**	**40**
Part C	**Practical Work**			
	Practical Examination			15
	Written Test			10
	Viva			10
	Total			**35**
Part D	**Project Work / Field Visit**			
	Practical File / Student Portfolio			10
	Viva Voce			05
	Total			**15**
	GRAND TOTAL	**200**		**100**

DETAILED CURRICULUM/TOPICS FOR CLASS IX:

Part-A: EMPLOYABILITY SKILLS

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills-I	10
2.	Unit 2: Self-management Skills-I	10
3.	Unit 3: Information and Communication Technology Skills-I	10
4.	Unit 4: Entrepreneurial Skills-I	15
5.	Unit 5: Green Skills-I	05
	TOTAL DURATION	**50**

Note: Detailed Curriculum/ Topics to be covered under Part A: Employability Skills can be downloaded from CBSE website.

Part-B – SUBJECT SPECIFIC SKILLS

- UNIT -1: BASICS OF ELECTRICAL AND ELECTRONICS
- UNIT -2: ELECTRICAL AND ELECTRONIC COMPONENTS
- UNIT -3: TOOLS AND EQUIPMENT.
- UNIT -4: INSTALLING AN RO WATER PURIFIER.
- UNIT -5: REPAIR AND MAINTENANCE OF WATER PURIFIER.
- UNIT -6: MAINTAIN HEALTH AND SAFETY.

UNIT-1 BASICS OF ELECTRICAL AND ELECTRONICS.

S. NO.	LEARNING OUTCOMES	THEORY	PRACTICAL
1	Appreciate the basics of electrical and electronics	• Origin of electricity, • Electrical quantities, • AC and DC, • Electric circuit • Series and parallel connections, • Open circuit and closed circuit, • Ohms law, • Kirchhoff law, • Energy consumption of appliances. .	• Demonstrate the basics of electricity and electrical, • Identify the symbols of voltage, current, resistance, power in a circuit diagram, • Draw the circuit and show voltage, current, resistance, power, • Identify the Live, Neutral and Earth on power socket, • Prepare the circuit to glow the lamp, • Construct a test lamp and use it to mains, • Build the series and parallel connections of resistors and calculate the resistance, • Verify ohm's law in the given electrical circuit.

UNIT 2: ELECTRICAL AND ELECTRONIC COMPONENTS.

S. NO.	LEARNING OUTCOMES	THEORY	PRACTICAL
1	Identify the electronic components and measure its parameters	• Basic electronic components – resistor, capacitor, inductor, transformer, diode, transistor, LED, ICs • Resistor – definition, types, construction, specification, measuring parameter, • Capacitor – definition, types, construction, specification, measuring parameter, • Inductors – definition, types, construction, specification, measuring parameter, • Transformer – working principle, specifications • Diode – definition, types, construction, specification, measuring parameter, • Transistor – definition, types, construction, specification, measuring parameter, • LED – definition, construction, specific use, • IC – definition, construction, specific use.	• Identify and name the discrete components used in circuit, • Read and list out the parameters of given resistor, capacitor, inductor, • Measure the resistor values using colour code and verify the reading by measuring in multi-meter • Identify different parts of transformers, • Identify NPN and PNP transistor. • Setup an experiment to identify the primary and secondary winding of transformer and measure the voltage of primary and secondary winding of step down transformer .

UNIT 3: TOOLS AND EQUIPMENT.

S. NO.	LEARNING OUTCOMES	THEORY	PRACTICAL
1	Demonstrate the use of tools and equipment	• Hand tools – screwdriver, pliers, wire stripper, wire cutter, phase tester, Pipe wrench, wire lugs, drill machine and drill bits. • Multi-meter, • Clamp meter, • TDS meter, • Soldering iron and wire, • Soldering and de-soldering	• Identify and name the hand tools and its parts, • Demonstrate to use the hand tools for given task, • Demonstrate the use of multi-meter to measure the various electrical quantity for the given task, • Demonstrate the soldering and de-soldering techniques, • Identify P and N terminal of diode. • Identify the terminals of PNP and NPN transistor using multi-meter, • Measure the current flowing in the wire using clamp meter.

UNIT 4: INSTALING AN RO WATER PURIFIER.

S. NO.	LEARNING OUTCOMES	THEORY	PRACTICAL
1	Undertake installation requirement	• Installation requirements (structural requirements, plumbing etc.), • Water flow diagram and electrical circuit diagram of the appliance, • Water purification process and different layers of filter present within the unit, • Different technologies in water purification • Different features and functionalities of various models, • Safety precautions to be taken while installing, • Manual-based procedure of installing the water purifier	• Visit the site and identify the place for installation, • Identify the structural requirements, • Carry out pre-installations/ masonry/electrical work for of adequate water pressure at the inlet source, • Make necessary markings for placement of the water purifier unit. • Demonstrate the process of site inspection and preparation.
2	Remove packaging and check accessories	• Unpacking process, • Safety precautions to be taken while installing, • Packaging waste disposal procedures • Other products of the company.	• Remove the packaging of water purifier, • Check that the product specifications and other supporting accessories, • Arrange tools and fitments required for the installation, • Dispose the packaging material waste as per norms.
3	Fix the water purifier at identified location	• Manual-based procedure of installing water purifier, • Tools required for fixing the water purifier, • Fixing process of water purifier.	• Demonstrate to fix water purifier on following points : – Check the pre-installation requirements, – Make measurements and drill holes without damage internal wiring, – Mount the filter and fastened the screws, – Drain the inlet line before connecting it to the water purifier, – Connect the outlet pipe to the drain, – Connect the purifier to the power supply point.
4	Check water purifier's functioning	• Post fixing checkup process, • Functioning of water purifier, • Maintenance procedures	• Illustrate the proper functioning of water purifier as per the desired standard
5	Document the installation water purifier	• Documentation process of installation of water purifier • Customer acknowledgment	• Perform the documentation of installation on following points: – Filling customer

		form, • Call center number.	acknowledgment form. – Call customer care.

UNIT 5: REPAIR AND MAINTENANCE OF WATER PURIFIER.

S. NO.	LEARNING OUTCOMES	THEORY	PRACTICAL
1	Identify the fault in water purifier	• Parameters such as production rate, water chemistry, drain rate, input water pressure/temperature • Different types of water purifiers manufactured by the company, • Features of different models of water purifier.	• Diagnose the fault based on customer interaction and initial inspection • Demonstrate to check the water pressure, • Carry out basic inspection of feed water valve, tank valve, tubing, housing etc. • Demonstrate to identify the fault on part basis inspection.
2.	Replace dysfunctional part in the water purifier unit	• Functioning of appliance and its various filters. • Components of water purifier – valves or wearing out of membrane or filter • Troubleshooting knowledge with respect to water purifier • Frequently occurring faults such as low/no water production, leaks, bad tasting water etc.	• Demonstrate to replace the damaged components – valves or wearing out of membrane or filter • Demonstrate to remove and replace the faulty module with a functional one.
3.	Confirm functionality of the repaired unit	• Reassembly process, • Components/modules of the water purifier, • Other products of the company • Cleaning procedures and other best practices.	• Demonstrate to reassemble the unit, • Check the functioning of all the units after reassemble, • Demonstrate and confirm functionality of the unit, • Demonstrate the cleaning procedures and other best practices.

UNIT 6: MAINTAIN HEALTH AND SAFETY.

S. NO.	LEARNING OUTCOMES	THEORY	PRACTICAL
1	Observe personal health and safety	• Exposure to hazardous substances, • Possible errors during cleaning the filters. • Electric shock and its cause, • Environmental factors: annoying noise, water splashing, odours, high humidity, etc.	• List the safety precautions, policies and procedures to be observed while installing, repair and maintenance, • Demonstrate the packaging waste and its disposal, • List hazards during repairs, • Demonstrate to use the tools and materials properly.

The unit-wise distribution of hours and marks for class X is as follows:

ELECTRONICS & HARDWARE (SUBJECT CODE - 420)

Class X (Session 2024-2025)

Total Marks: 100 (Theory-50 + Practical-50)

	UNITS	NO. OF HOURS for Theory and Practical 200		MAX. MARKS for Theory and Practical 100
Part A	**Employability Skills**			
	Unit 1 : Communication Skills-II	10		2
	Unit 2 : Self-Management Skills-II	10		2
	Unit 3 : ICT Skills-II	10		2
	Unit 4 : Entrepreneurial Skills-II	15		2
	Unit 5 : Green Skills-II	05		2
	Total	**50**		**10**
Part B	**Subject Specific Skills**	**Theory (In Hours)**	**Practical (In Hours)**	**Marks**
	Unit -1: Electrical Components and Motor.	12	18	8
	Unit -2: Repair and Maintenance of Mixer/Juicer/Grinder.	15	23	10
	Unit-3: Repair and Maintenance of Microwave oven.	18	27	12
	Unit-4: Workplace Health and Safety measures.	15	22	10
	Total	**60**	**90**	**40**
Part C	**Practical Work**			
	Practical Examination			15
	Written Test			10
	Viva			10
	Total			**35**
Part D	**Project Work / Field Visit**			
	Practical File / Student Portfolio			10
	Viva Voce			05
	Total			**15**
	GRAND TOTAL	**260**		**100**

DETAILED CURRICULUM/TOPICS FOR CLASS X:

Part-A: EMPLOYABILITY SKILLS

S. No.	Units	Duration in Hours
1.	Unit 1: Communication Skills-II	10
2.	Unit 2: Self-management Skills-II	10
3.	Unit 3: Information and Communication Technology Skills-II	10
4.	Unit 4: Entrepreneurial Skills-II	15
5.	Unit 5: Green Skills-II	05
	TOTAL DURATION	**50**

Note: Detailed Curriculum/ Topics to be covered under Part A: Employability Skills can be downloaded from CBSE website.

Part-B – SUBJECT SPECIFIC SKILLS

- UNIT -1: ELECTRICAL COMPONENTS AND MOTOR.
- UNIT -2: REPAIR AND MAINTENANCE OF MIXER/JUICER/GRINDER.
- UNIT -3: REPAIR AND MAINTAINCE OF MICROWAVE OVEN.
- UNIT -4: WORKPLACE HEALTH AND SAFETY MEASURES.

UNIT-1 ELECTRICAL COMPONENTS AND MOTOR.

S. NO.	LEARNING OUTCOMES	THEORY	PRACTICAL
1	Appreciate the role electrical safety components.	• Relay, • Types of Relay, • Circuit Breaker, • Fuse – types, use of fuses and its rating.	• Identify the parts of a relay, • List the equipment using relay for circuit production, • Identify the different parts of circuit breaker relay, • List the different parameters of circuit breaker, • Identify different parts of fuse.
2	Appreciate the concepts of motor	• Electric Field and Magnetic Field, • Electromagnetic Induction, • Fleming's left hand rule and right hand rule, • Lentz law, • Lorentz Law, • Winding, • Winding types – wave winding and lap winding, • Single phase supply system,	• Draw a magnetic field of bar magnet, • Demonstrate an experiment to show electromagnetic induction, • Demonstrate the Fleming's Left hand and right hand rule, • Identify the gauge of winding wire,

3	Demonstrate the functioning of motors.	• Introduction to motor, • Parts of motor,. • Types of motor, • Working principle of motor, • RPM of motor, • Functioning of motor,	• Dismantle of motor and identify the different parts of motor, • Identify the different parts of motor and read its specifications, • Measure the RPM of motor.

UNIT 2: Repair and Maintenance of Mixer/Juicer/Grinder

S. NO.	LEARNING OUTCOMES	THEORY	PRACTICAL
1	Identify faults on mixer/juicer/grinder on the basis of symptoms	• Different models of appliances (mixer/juicer/grinder), their features and functioning, • Functioning of various electromagnetically parts of the mixer grinder • Frequently occurring faults such as abnormal noise during use, jars.	• Demonstrate the usage of mixer/grinder, • Demonstrate to diagnose the fault on initial inspection, • Perform basic tests- power, supply, volt ampere test, • Demonstrate to separate and inspect every module of the unit.
2	Replace dysfunctional module In mixer/juicer/grinder	• Components/modules of different mixer/juicer/grinder, • Other products of the company.	• Demonstrate to remove and replace the faulty module (relay, thermostat, rotatory switch, indicator and motor)
3	Confirm functionality of repaired mixer/juicer/grinder	• Reassembly process of the mixer/juicer/grinder, • Factors confirming the proper functioning of the repaired/ replaced part or unit of the mixer/juicer/grinder, • Cleaning and maintenance process of mixer/juicer/grinder.	• Demonstrate to reassemble the unit and confirm its functionality of repaired unit, • Demonstrate the cleaning procedures, using different jars, .

UNIT 3: REPAIR AND MAINTENANCE OF MICROWAVE OVEN

S. NO.	LEARNING OUTCOMES	THEORY	PRACTICAL
1	Identify faults on microwave oven on the basis of symptoms	• Different models of microwave oven, their features and functionalities, • Functioning of microwave oven, • Components/modules of different microwave oven, • Troubleshooting of microwave oven, • Frequently occurring faults such as intermittent heating, no heating, timing problem ,display problem,	• Diagnose the fault based on initial inspection, • Perform basic tests- power supply volt ampere tests, • Demonstrate to separate and inspect every module of microwave oven.

2	Replace dysfunctional module in microwave	• Energy ratings such BEE ratings and concepts of e waste.	• Demonstrate to remove and replace the faulty module.
3	Confirm functionality of repaired microwave oven.	• Reassembly process of the microwave oven, • Factors confirming the proper functioning of the repaired/ replaced part or unit of the microwave oven, • Cleaning and maintenance process of microwave oven.	• Demonstrate to reassemble the unit • Demonstrate and confirm functionality of the repaired unit • Demonstrate the cleaning and maintenance procedure.

UNIT 4: WORKPLACE HEALTH AND SAFETY MEASURES

S. NO.	LEARNING OUTCOMES	THEORY	PRACTICAL
1	Observe the workplace safety measures for health	• Electrical hazards • Chemical hazards • Fire extinguisher • First aid for electrical emergency,	• Illustrate the safety precaution and remedies while working with the electrical system. • Demonstrate the use of fire extinguisher, • Demonstrate the use of safety helmets, ear plugs, shoes, gloves, goggles, etc

TEACHING/TRAINING ACTIVITIES

The teaching and training activities have to be conducted in classroom, laboratory/ workshops and field visits. Students should be taken to field visits for interaction with experts and to expose them to the various tools, equipment, materials, procedures and operations in the workplace. Special emphasis should be laid on the occupational safety, health and hygiene during the training and field visits.

CLASSROOM ACTIVITIES - Classroom activities are an integral part of this course and interactive lecture sessions, followed by discussions should be conducted by trained teachers. Teachers should make effective use of a variety of instructional aids, such as audio-video materials, colour slides, charts, diagrams, models, exhibits, hand-outs, online teaching materials, etc. to transmit knowledge and impart training to the students.

PRACTICAL WORK IN LABORATORY/WORKSHOP - Practical work may include but not limited to hands-on-training, simulated training, role play, case based studies, exercises, etc. Equipment and supplies should be provided to enhance hands-on learning experience of students. Only trained personnel should teach specialized techniques. A training plan that reflects tools, equipment, materials, skills and activities to be performed by the students should be submitted by the vocational teacher to the Head of the Institution.

FIELD VISITS/ EDUCATIONAL TOUR - In field visits, children will go outside the classroom to obtain specific information from experts or to make observations of the activities. A checklist of observations to be made by the students during the field visits should be developed by the Teachers for systematic collection of information by the students on the various aspects. Principals and Teachers should identify the different opportunities for field visits within a short distance from the school and make necessary arrangements for the visits. At least three field visits should be conducted in a year.

SKILL ASSESSMENT (PRACTICAL) - Assessment of skills by the students should be done by the assessors/examiners on practical demonstration of skills by the candidate. The assessors assessing the

skills of the students should possess a current experience in the industry and should have undergone an effective training in assessment principles and practices.

Practical examination allows candidates to demonstrate that they have the knowledge and understanding of performing a task. This will include hands-on practical exam, viva voce and student portfolio (File/journal).

Project Work (individual or group project) is a great way to assess the practical skills on a certain time period or timeline. Project work should be given on the basis of the capability of the individual to perform the tasks or activities involved in the project. Projects should be discussed in the class and the teacher should periodically monitor the progress of the project and provide feedback for improvement and innovation. Field visits should be organised as part of the project work. Field visits can be followed by a small-group work/project work. When the class returns from the field visit, each group might be asked to use the information that they have gathered to prepare presentations or reports of their observations. Project work should be assessed on the basis of practical file or student portfolio **Student Portfolio** is a compilation of documents that supports the candidate's claim of competence. Documents may include reports, articles, and photos of products prepared by students in relation to the unit of competency.

Viva voce allows candidates to demonstrate communication skills and content knowledge. Audio or video recording can be done at the time of viva voce. The number of external examiners would be decided as per the existing norms of the Board and these norms should be suitably adopted/adapted as per the specific requirements of the vocational subject. Viva voce should also be conducted to obtain feedback on the student's experiences and learning during the project work/field visits.

ORGANISATION OF FIELD VISITS/EDUCATIONAL TOURS

In a year, at least 3 field visits/educational tours should be organised for the students to expose them to the activities in the workplace.

Visit the site of service center or shop carrying out the installation, repair and maintenance of home appliances – water purifier, mixer/ juicer/ grinder and microwave oven, and observe the following: Location, Site, Tools and Equipment, Raw Materials, Space parts, Workers behavior. During the visit, students should obtain the following information from the owner or the supervisor of the OFC site:

1. Types, specifications, costs and brands of appliances – water purifier, mixer/ juicer/ grinder and microwave oven,
2. Installation process of these appliances,
3. Tools and equipment used for installation, repair and maintenance of these appliances,
4. Safety precautions to be observed during installation, repair and maintenance
5. Specifications and cost of tools and equipment
6. Total expenditure of the project
7. Manpower engaged
8. Wages of workers
9. Qualifications and skills of workers
10. Any other information

LIST OF EQUIPMENT AND MATERIALS

The list given below is suggestive and an exhaustive list should be prepared by the vocational teacher. Only basic tools, equipment and accessories should be procured by the Institution so that the routine tasks can be performed by the students regularly for practice and acquiring adequate practical experience.

1. Clamp Meter
2. Digital Multimeter
3. Electrical Drill
4. Lead Solder
5. Pipe wrench
6. Microwave Oven
7. Mixer
8. Juicer
9. Grinder
10. Screw Driver Set
11. Soldering Flux
12. Soldering Iron
13. Spanner Set
14. TDS Meter
15. Water Pressure Gauge
16. Water Purifier (RO)
17. Water Purifier (UV)
18. Water Purifier (UF)
19. Spares for micro wave oven as required
20. Hand glove 4 pairs
21. Radiation leakage tester 1 Nos

TEACHER'S/TRAINER'S QUALIFICATION

Qualification and other requirements for appointment of vocational teachers/trainers on contractual basis should be decided by the State/UT.

The suggestive qualifications and minimum competencies for the vocational teacher should be as follows:

Minimum Qualification	Minimum Competencies	Age Limit
B.E. / B. Tech. in Electrical/ Electronics / Telecommunication with one year experience in the relevant field OR Diploma in Electrical/ Electronics/ Electronics/ Telecommunication from recognized board of technical education with two years' experience in relevant field.	The candidate should have work experience in the job role. S/He should be able to communicate in English and local language. S/He should have knowledge of equipment, tools, material, Safety, Health & Hygiene.	18-37 years (as on Jan. 01 (year)) Age relaxation to be provided as per Govt. rules