

### GENERAL CONDITIONS

1. Applicants sponsored by Micro, Small & Medium Enterprises and those belonging to SC/ST/Handicapped categories will be given preference.
2. If available, hostel accommodation at nominal rates will be provided.
3. Course fee once paid will not be refunded, however this can be adjusted for subsequent course during the year depending upon the availability of seats.
4. During evening hours course can be conducted in industries located in Ludhiana. Short term courses can be conducted at other stations on receiving specific demand from industry or agencies working for growth and promotion of industrial development.
5. Tailor made course can be arranged on demand.
6. Fee concession will be granted to SC/ST candidates as per Govt. norms applicable from time to time.
7. Candidates may contact Manager Training/STC Coordinator on e-mail/ telephones Nos. given below.
8. All the dates mentioned are tentative and candidates should confirm the availability of seats well in advance.

### PROFILE & OBJECTIVE

Central Tool Room, Ludhiana has been set up under bilateral agreement on technical cooperation between Govt. of India and Govt. of Federal Republic of Germany to promote a purposeful technical education for youth in India. CTR offers various courses to cover a wide spectrum of technical manpower.

**Diploma Level** : Four year Diploma in Mechanical Engineering (Tool & Die)

: Three year Diploma in Mechatronics Engineering.

: Three year Diploma in Computer Science and Engineering

**Short Duration** : Short term courses in Mechanical/Electrical/Electronics Engineering subjects

All the P.G./Diploma/Certificate Courses offered by CTR are accepted by Industries in India and abroad for employment purposes. This institute has enough infrastructure, latest training Methodologies and well trained faculty to ensure best quality of training.

CTR has ultra-modern, state-of-art Tool Room machines under single roof. It is an ideal Tool Room for Tool & Die Technology. The wide spectrum of sophisticated machines includes all latest and advanced machines, which can cater to various requirements of the industries.

CTR aims at emerging as a top class Design & Product Development Center in country to cater to the needs of 21st century.

### OBJECTIVES

- \* To increase the efficiency of Micro, Small & Medium Enterprises in the Northern Region in light engineering and allied fields by providing support in the area of design & production of Tools, Jigs & Fixtures, advisory/consultancy services.
- \* To manufacture small & medium sized tools such as Press Tools, Jigs & Fixtures, Moulds & Dies and special purpose Tools.
- \* To provide common service facilities for the manufacture of Tools, Jigs & Fixtures, Mould & Dies and in various Heat Treatment Processes for Micro, Small & Medium Enterprises of the region.
- \* To impart technical training to Tool Makers for Press Tools, Dies, Jigs & Fixtures and Mould etc. and on Heat Treatment processes for the Micro, Small and Medium Enterprises.
- \* To conduct short term and part time courses for the representatives of Micro, Small and Medium Enterprises of the region.
- \* To provide rapid prototype parts to the industries involved in new product development.

## Admission Procedure

### Following documents required for admission

1. Self Attested copy of 10th certificate.
2. Self Attested copy of Aadhar Card (Compulsory for admission).
3. One passport size photograph.
4. Self Attested copy of Caste Certificate, if applicable.
5. Self Attested copy of 12th certificate, if applicable.
6. Self Attested copy of pursuing Degree/Diploma/ITI in Mechanical/Electronic/Electrical Engg. (if applicable)

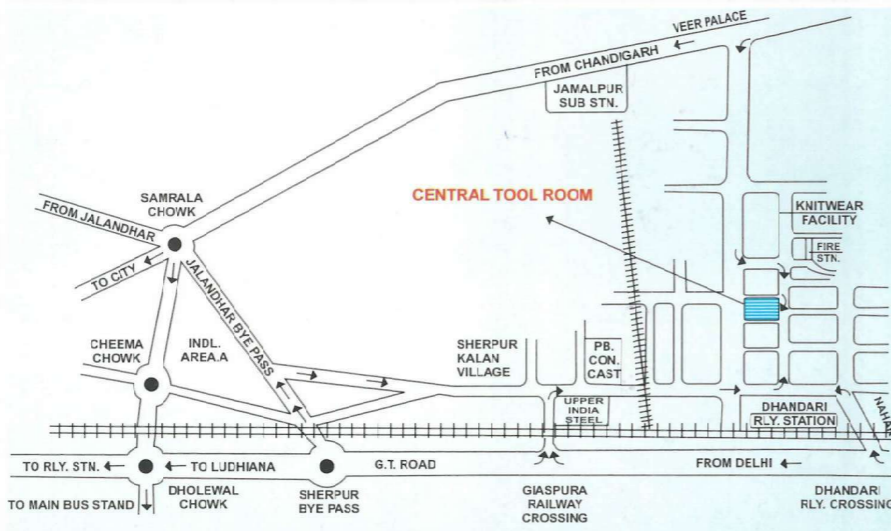
### Only For NSQF Compliant Course

Attested Copy of Passed / Pursuing Degree / Diploma / ITI in Mechanical/ Electronic / Electrical Engg. (Wherever Applicable)

### Note:-

1. "The tuition fee shall be exempted for SC/ST category for NSQF-compliant courses and courses with code numbers ST 01 to ST 14, ST 16, ST 18 to ST 19, ST 88, ST 89, and ST 91."
2. Check the particulars like Name, Father's Name, Date of Birth, Address etc. carefully in application form before submitting.
3. If the particulars of a candidate not matching on the enclosed documents such as Matric Certificate, Aadhar Card, SC certificate or any other certificates, then an affidavit to be enclosed for this mismatch.

## LOCATION OF CENTRAL TOOL ROOM, LUDHIANA



A-5, PHASE-V, FOCAL POINT, LUDHIANA-141 010. PHONE - 91-161-2670058, 59, Ext. 251, 252  
E-Mail : [info@ctrludhiana.org](mailto:info@ctrludhiana.org), [training@ctrludhiana.org](mailto:training@ctrludhiana.org), Visit us at : [www.ctrludhiana.org](http://www.ctrludhiana.org)

### CTR Outreach Centres:-

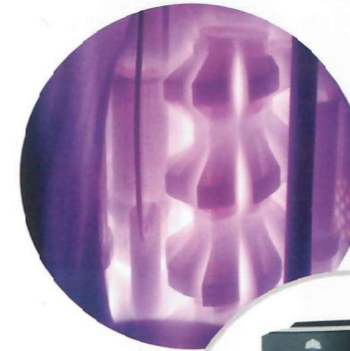
1. CTR Extension Centre, Govt. Quality Marking Centre, Govt. ITI Complex, NH-4, Faridabad, Haryana-121003 M. No. 8901503789, E-mail: [faridabad@ctrludhiana.org](mailto:faridabad@ctrludhiana.org)
2. CTR Extension Centre, Govt. I.T.I., Kunjpura Road, KARNAL - 132 001 (Haryana), M. No: 94163-03789, Email : [nilokheri@ctrludhiana.org](mailto:nilokheri@ctrludhiana.org)
3. CTR Extension Centre, G T Road, Nilokheri, Distt. Karnal - 132 117 (Haryana). M. No: 94163-03789, E-mail: [nilokheri@ctrludhiana.org](mailto:nilokheri@ctrludhiana.org)



# Training Calendar 2026-2027



केन्द्रीय टूल रूम



## MSME Technology Centre-Ludhiana Central Tool Room

GOVERNMENT OF INDIA SOCIETY

(Ministry of Micro, Small & Medium Enterprises)

# SCHEDULE OF TRAINING PROGRAMMES FROM APRIL 2026 TO MARCH 2027

S No.	Code	Name of the Course	Starting dates	Duration	Timings	Course Fee	Brief Contents	Eligibility
<b>CAD/CAM COURSES</b>								
1	ST 01	AutoCAD Mechanical	Every Month	96 Hours	9.00 AM -5.00PM	Rs. 5,900/-	Create 2D sketch, Edit of models, Understand the layer management & block, Create solid model for mechanical components, Apply mechanical rendering, Observe & follow	10th Pass
2	ST 02	Electrical CAD	Every Month	96 Hours	9.00 AM -5.00PM	Rs. 5,900/-	Broad knowledge of E-CAD, Design different types of electrical circuits, Use software for generating solutions in E-CAD, Communicate effectively, Observe & follow safety	10th Pass
3	SI 03	CREO Parametric	Every Month	96 Hours	9.00 AM-3.00PM	Rs. 9,440/-	Create 2D sketch, Design Solid Model, Develop surface Model, Build Assembly Design, Generate drafting, Observe & follow safety, Communicate effectively	10th Pass
4	ST 04	Solidworks	Every Month	96 Hours	9.00 AM-5.00PM	Rs. 6,254/-	Create 2D sketch, Design Solid Model, Develop surface Model, Build Assembly Design, Generate drafting, Observe & follow safety, Communicate effectively	10th Pass
5	ST 05	MasterCAM	Every Month	96 Hours	9.00 AM-5.00PM	Rs. 6,254/-	Create 2D sketch, Design Solid Model, Develop Wire frame & Surface Model, Generate 2D tool path, Generate 3D tool path, Observe & follow safety, Communicate effectively	10th Pass
6	ST 06	DelCAM	Every Month	96 Hours	9.00 AM-5.00PM	Rs. 5,900/-	Create 2D sketch, Design Solid Model, Develop Wire frame & Surface Model, Generate 2D tool path, Generate 3D tool path, Observe & follow safety, Communicate effectively	10th Pass
7	ST 07	Unigraphics	Every Month	96 Hours	9.00 AM-5.00PM	Rs. 9,440/-	Create 2D sketch, Design Solid Model, Develop surface Model, Build Assembly Design, Generate drafting, Observe & follow safety, Communicate effectively	10th Pass
8	ST 08	CATIA	Every Month	96 Hours	9.00 AM-5.00PM	Rs. 9,440/-	Create 2D sketch, Design Solid Model, Develop surface Model, Build Assembly Design, Generate drafting, Observe & follow safety, Communicate effectively	10th Pass
<b>ANALYSIS SOFTWARES COURSES</b>								
9	ST 09	Ansys	Every Month	96 Hours	9.00 AM-5.00PM	Rs. 9,204/-	Understand Finite Element Methods & GUI of ANSYS, Perform Structural Analysis for 1D elements, Analysis of 2D Structure, Analysis of 3D Structure, Analysis of 1D, 2D, 3D Thermal Elements, Observe & follow safety, Communicate effectively	10th Pass
10	ST 10	Hypermesh	Every Month	96 Hours	9.00 AM-5.00PM	Rs. 9,204/-	Introduction to CAE & Hypermesh, Perform Geometry creation & Geometry edit, Generate Manual & Automeshing, Check Quality Criteria, Introduction Of Optistruct, Hyperview & Hyperform, Observe & follow safety, Communicate effectively	10th Pass
<b>CNC MACHINING COURSES</b>								
11	ST 11	CNC Programming - Lathe	Every Month	96 Hours	9.00 AM-5.00PM	Rs. 9,440/-	List different Cutting tooling standards, Develop mathematical / Analytical skills, Execute CNC Machining Programme, CNC Lathe Programming - On job training, Communicate effectively, Observe & follow safety	10th Pass
12	ST 12	CNC Machining - Lathe	Every Month	96 Hours	9.00 AM-5.00PM	Rs. 9,440/-	List different Cutting tooling standards, Develop mathematical / Analytical skills, Execute CNC Machining Programme, CNC Lathe MACHINING - On job training, Communicate effectively, Observe & follow safety	10th Pass
13	ST 13	CNC Programming - Milling	Every Month	96 Hours	9.00 AM-5.00PM	Rs. 9,440/-	List different Cutting tooling standards, Develop mathematical / Analytical skills, Execute CNC Machining Programme, CNC Milling Programming - On job training, Communicate effectively, Observe & follow safety	10th Pass
14	ST 14	CNC Machining - Milling	Every Month	96 Hours	9.00 AM-5.00PM	Rs. 9,440/-	List different Cutting tooling standards, Develop mathematical / Analytical skills, Execute CNC Machining Programme, CNC Milling Machining - On job training, To communicate effectively, Observe & follow safety	10th Pass
15	OT-142	CNC Programming & Machining	Every Month	02 Months	9.00 AM-5.00PM	Rs. 31,270/-	Understand & explain the concept and importance of CNC programming, Prepare & understand line program for various profiles, Identify & set parameters for various simulators, Prepare & simulate various operation cycles for lathe and milling, Use and simulate cycles using various Controls.	Pursuing Degree, Diploma, ITI in Mech. Trades
16	OT-072	CNC Machining (WIRE-CUT)	Every Month	One Month	4 Hrs / Day	Rs. 9,440/-	Selection of a cutting tool based on the coated fabric & its importance, Setting the parameters of cutting machine, Basic principles of operation & typical operations that they can perform, Cutting operation using cutting tools, Machining operations that they can perform, the methods, equipment used with how to start and stop the machine in normal & emergency situations.	Pursuing Degree, Diploma, ITI in Mech. Trades
<b>ELECTRICAL/ELECTRONICS/MECHATRONICS SKILL DEVELOPMENT COURSES</b>								
17	ST 16	Computer Hardware & Networking	Every Month	96 Hours	4 Hrs / Day	Rs. 6,254/-	Basic Electronics, Computer Software, Computer Hardware, Networking	10th Pass
18	ST 18	Microcontroller Programming	Every Month	96 Hours	4 Hrs / Day	Rs. 6,254/-	Introduction to Microcontroller, Introduction to PIC Microcontroller 16F877A, Pin Diagram, Embedded C Programming, Interfacing of LEDs, Switch, 7-segments, 16x2 LCD, Various Sensors, DC and Stepper Motor with PIC	10th Pass
19	ST 19	PLC Programming	Every Month	96 Hours	4 Hrs / Day	Rs. 9,440/-	Broad knowledge of PLC programming, Apply ladder logic principles for solutions to the specific problems, Use software for generating solutions in PLC, Communicate effectively, Observe & follow safety	10th Pass
20	ST 88	Embedded System	Every Month	96 Hours	4 Hrs / Day	Rs. 6,254/-	Introduction to Embedded System, Difference between Microprocessor & Microcontroller, Concept of Embedded C programming, Designing an Embedded System using Microcontroller, Interfacing of LEDs, Switch, 7-segments, 16x2 LCD, various Sensors, DC and Stepper Motor with microcontroller, Practice of various Embedded C programs to control the various peripherals.	10th Pass
21	ST 89	SCADA	Every Month	96 Hours	4 Hrs / Day	Rs. 6,254/-	Installation of SCADA software and its configuration, Creating single user project, Creating multi-user project, Graphics designer tools, Process to set tags, Windows object, Analog process, Moving object, Alarm logging and tag logging.	10th Pass
22	ST 91	JAVA	Every Month	96 Hours	4 Hrs / Day	Rs. 9,440/-	Introduction to Java, Java Basics (Data types, Variables, Operators), Control Statements, Object-Oriented Programming (OOP), Arrays and Strings, Packages & Wrapper Classes, Exception Handling, Multithreading, File Handling, Collections, Framework, Java 8 Features, JDBC etc.	10th Pass
23	OT 122	Internet of Things (IoT)	Every Month	96 Hours	4 Hrs / Day	Rs. 6,254/-	Introduction to Internet of Things (IoT), Various electronics hardware platforms to implement IoT, Introduction to ESP-8266 Node MCU Wi-Fi based module, Introduction to Embedded 'C' programming language, Interfacing of various analog and digital sensors such as LDR, DHT-11 Temperature & Humidity sensor, Ultrasonic Sensor etc., Introduction to open source IoT Cloud platform, Real time monitoring of sensor's data on IoT cloud platform.	10th Pass
24	OT-150	Basic Pneumatics	Every Month	96 Hours	4 Hrs / Day	Rs. 6,254/-	Introduction to Pneumatic control system, Valves and cylinders. Symbols of various Pneumatic components, Demonstration of Pneumatic valves and cylinders, Flow control valves, Dual pressure valves, Shuttle valves, Practice of various Pneumatic Control Circuits.	10th Pass
25	OT-147	Advance Pneumatics	Every Month	96 Hours	4 Hrs / Day	Rs. 9,440/-	Introduction to Industrial Pneumatic control system, Valves and cylinders. Symbols of various Mobile Pneumatic components, Demonstration of Pneumatic valves and cylinders, Flow control valves, Dual pressure valves, Shuttle valves, Foot operated valve, Practice of various Industrial Mobile Pneumatic Circuits including control of Bus Door, Cascading, Lifting mechanism.	10th Pass
26	OT-148	Automation with Pneumatics using PLC	Every Month	96 Hours	4 Hrs / Day	Rs. 9,440/-	Introduction to Automation. Introduction to PLC. Introduction to PLC Software (S7 Simatic Manager). Various exercises on Bit logic, Counter, Timer and Comparator in Ladder programming, Introduction to Pneumatic & Electro-Pneumatic system. Working and identification of various Pneumatic & Electro-Pneumatic components, Hands on Practices using various Pneumatic & Electro-Pneumatic components and PLC.	10th Pass
<b>SAMSUNG COLLABORATED COURSES</b>								
27	ST 20	AC Installation	Every Month	2 Weeks	4 Hrs / Day	Rs. 3,540/-	Introduction to basic Refrigeration Cycle, Tube Cutting, Tube Straightening, Flare making, brazing and installation.	10th Pass
28	ST 21	AVIIDM (Installation and Demo of LED's)	Every Month	2 Weeks	4 Hrs / Day	Rs. 3,540/-	Introduction, Basics, Installation Process, Remote Controller and key features, Software upgradation, Making connections & Segment comparison	10th Pass
<b>INDUSTRIAL &amp; SOFTWARE TRAINING</b>								
29	ST 22	Mechanical CAD/CAM	Jan, 2026 July, 2025	25 Weeks	4 Hrs / Day	Rs. 25,000/-	Create object drawing on CAD software, Create objects using 3D Modeling Space, Print Preview and Plotting in CAD, Interpret & write CAM program for CNC machines, Describe reverse engineering and rapid prototyping technology, Apply professional & technical knowledge while performing the task, Implement time management, management related task in day to day work for personal & social growth, Selection and analysis of CAD/CAM software, Implement soft skills, working with Computer and communicate with required clarity, Recognize & comply safe working practices, environment aspect and housekeeping	Pursuing Degree in Mech. Trades
30	OT 125	Advance Diploma in Automation & Control	Jan, 2026 July, 2025	25 Weeks	4 Hrs / Day	Rs. 25,000/-	Electrical, electronics and instrumentation, Electrical panel and wiring knowledge, Electronics indicators, switches and panel accessories, Motor fundamentals, drive system fundamentals, PLC, DCS programming software, SCADA, HMI development software, Pneumatic, hydraulic components, Basics on industrial process	Pursuing Degree in Elec./electronics Trades
31	ST 90	On-Job-Training	Every Month	2 Weeks (75 Hrs.) 4 Weeks (150 Hrs.)	6.5 Hrs / Day	Rs. 3000/- Rs. 6,000/-	AutoCAD (Mech), AutoCAD (Civil) / SolidWorks / MasterCAM /CNC Programming-Lathe / CNC Programming-Milling / CNC Machining (WIRE CUT) / Revit / Stand-Pro / 3-D Max / Electrical CAD / Microcontroller Programming / Embedded System / PLC Programming / Internet-of-Things / Basic + Advance Industrial Electrical Maintenance / Basis Mechatronics / Basic + Advance Pneumatics / Basic + Advance Welding / Computer Hardware and Networking / Basic Computer applications etc.	Pursuing ITI Trainees

<b>NSQF Approved Courses</b>									
S No.	NQR Code	Name of the Course	NSQF Level	Starting dates	Duration (Hours)	Timings	Course Fee	Brief Contents	Eligibility
32	QG-4.5-CG-02403-2024-VI-MSME	CNC Programmer-Tool Room	Level 4.5	Jan, 2026 July, 2025	600 Hrs.	6 Hrs / Day	Rs. 60,000/-	Understand the Concept of Production Process, Read, Interpret and Create Part Drawing using Auto-CAD Create, Generate and Execute CNC Program for Manufacturing Process, Check and Inspect dimensions of machined Part using various Measuring instrument, Employability skills	Preferably Diploma in Mech./ Prod./ Tool Design/ Mould Making/Automobile/ 2 Year ITI
33	QG-4.5-CG-02409-2024-VI-MSME	Sr. Technician-Machine Maintenance And Automation	Level 4.5	Jan, 2026 July, 2025	600 Hrs.	6 Hrs / Day	Rs. 40,000/-	Demonstrate the Basic Machine Operation, Maintenance of Hydraulics & Pneumatics Components, Create & Modify the Electrical circuit diagram using CAD software, Basics of Industrial Automation, Employability skills	Preferably Pursuing Degree/ Diploma or 2 ITI Passout with 1 year experience
34	QG-4.5-CG-02404-2024-VI-MSME	Junior Designer CAD/CAM	Level 4.5	Jan, 2026 July, 2025	600 Hrs.	6 Hrs / Day	Rs. 40,000/-	Create & Modify Part Model using CAD Software, Generate Part Program Using CAM Software (CAM), Analyze Part Model, Design Surfaces using Higher end CAD Software, Generate CNC Program, Employability Skills, OJT	Preferably Pursuing Degree / Passout Diploma
35	QG-4.5-CG-02406-2024-VI-MSME	Jr. Designer - Tool	Level 4.5	Jan, 2026 July, 2025	600 Hrs.	6 Hrs / Day	Rs. 45,000/-	Create & Modify Part Model using CAD Software, Create & Modify Part Model and Generate Part Program Using CAD/ CAM Software, Design of Jigs & Fixtures, Design of Press Tools, Design of Moulds, Employability skills	Preferably Pursuing Degree / Passout Diploma
36	QG-04-CG-02411-2024-VI-MSMF	Technician - CNC Machining	Level 4	Jan, 2026 July, 2025	600 Hrs.	6 Hrs / Day	Rs. 45,000/-	Fundamentals of CNC Technology, Create CNC Programs and carry out CNC Machining operations, Create Part drawing using CAD Software, Generate part Programs using CAM Tools, Employability Skills	10th grade pass with two years of any combination of NTC/NAC/CITS /ITI in relevant trades or equivalent.
37	QG-04-EH-02383-2024-VI-MSME	Technician - Audio Video Systems	Level 4	Jan, 2026 July, 2025	510 Hrs.	8 Hrs / Day	Rs. 15,000/-	Study On Basic Electrical/Electronics, Safety & Hand Tools -AV, Advance Skill Enhancement On Troubleshooting, Assembly, Disassembly, Installation & Demonstration On Respective Products -AV, Employability Skills, On Job Training	12th Passout / Preferably Pursuing / Passout Diploma (any field) / Degree (any field)
38	QG-04-EH-02384-2024-VI-MSME	Technician - Hand Held Products	Level 4	Jan, 2026 July, 2025	510 Hrs.	8 Hrs / Day	Rs. 20,000/-	Study On Basic Electrical/Electronics, Safety & Hand Tools -HHP, Advance Skill Enhancement On Troubleshooting, Assembly, Disassembly & Set Up On Respective Products -HHP, Employability Skills, On Job Training	12th Passout / Preferably Pursuing / Passout Diploma (any field) / Degree (any field)
39	QG-04-EH-02387-2024-VI-MSME	Technician-Room Air Conditioner & Home Appliances	Level 4	Jan, 2026 July, 2025	600 Hrs.	8 Hrs / Day	Rs. 25,000/-	Study On Basic Electrical/Electronics, Safety & Hand Tools -RACHA, Advance Skill Enhancement On Troubleshooting, Assembly, Disassembly, Installation & Demonstration On Respective Products -RACHA, Employability Skills, On Job Training	HSC / ITI (2 years) / Diploma (any field) / Degree (any field)
40	QG-3.5-CG-02401-2024-VI-MSME	Jr. Technician - Heat Treatment	Level 3.5	Jan, 2026 July, 2025	1200 Hrs.	6 Hrs / Day	Rs. 25,000/- per year	Head and Construct the Orthographic Projection of part. Use and Application of Engineering Materials, Performs Material testing Activities, Assist in Heat Treatment Processes, Employability Skills, Assist & Perform Heat Treatment operation for Metals	Preferably 10th pass
41	QG-3.5-CG-02402-2024-VI-MSME	Jr. Technician - Tool & Die Maker	Level 3.5	Jan, 2026 July, 2025	1200 Hrs.	6 Hrs / Day	Rs. 1,00,000/-	Create Part Drawing using CAD, Checking dimensions of machined Part, Manufacturing of Tool & Die Parts, Use and Application of Engineering Materials, Design of Press Tool, Assist in Operation of CNC Machine, Design of Mould, Create & Modify part using higher End software, Generate Part Program for CNC Machine using CAM, Employability Skills	Preferably 10th pass
42	QG-03-CG-02408-2024-VI-MSME	Assistant Operator - CNC Turning-Tool Room	Level 3	Jan, 2026 July, 2025	600 Hrs.	6 Hrs / Day	Rs. 40,000/-	Assist in Operation of CNC Lathe Machine, Demonstrate the working Principle of Machine Tools, Checking dimensions of CNC machined Part, Create Part Drawing using Auto-CAD, Employability skills	Preferably 10th pass
43	QG-03-CG-02398-2024-VI-MSME	Asst. Operator - CNC Milling (Tool Room)	Level 3	Jan, 2026 July, 2025	600 Hrs.	6 Hrs / Day	Rs. 40,000/-	Assist in Operation of CNC Milling Machine, Demonstrate the working Principle of Machine Tools, Checking dimensions of CNC machined Part, Create Part Drawing using Auto-CAD, Employability skills, OJT	Preferably 10th pass
44	MEP/Q7301	Fire- Fighter	Level 5	Jan, 2026 July, 2025	620 Hrs.	6 Hrs / Day	Rs. 15,000/-	Identify type of fire and response required. Carry out first aid fire fighting using portable extinguishers, Respond to the fire incidents using firefighting systems, Carry out rescue operation and administer medical first-aid, Inspect installed fire safety equipment and systems for operational readiness, Maintain health and safety of self and others, Work effectively as a Fire-fighter	10th passed or its equivalent. Minimum age 18 years
45	2015/MIN/SCMS/0408	Fireman	Level 4	Every Month	120 Hrs.	6 Hrs / Day	Rs. 5,000/-	Undertake actions to prevent the fire situation in a mine, Conduct fire rescue operations, Health and Safety	Class 12th

*All the dates mentioned are tentative and candidates should confirm the dates and availability of seats well in advance.*