

Qualification Pack



Welding Automation Engineer

QP Code: CSC/Q0215

Version: 1.0

NSQF Level: 6

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CSC/Q0215: Welding Automation Engineer

Brief Job Description

A Welding Automation Engineer is a specialist who focuses on designing, implementing, and improving systems that automate welding processes.

Personal Attributes

The person should be result oriented with good technical and analytical skills, should have Excellent Interpersonal Skills, communication and presentation skills and a good team player. They should have the ability to manage projects, prioritize work and mentor budding engineers.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [CSC/N0218: Oversee Automated welding operations to ensure compliance with project specifications and requirements.](#)
2. [CSC/N0219: Set up and program the controllers in Automated welding systems\(including Robotic Arm Configuration\)](#)
3. [CSC/N0220: Manage issues and oversee the routine maintenance on welding automation systems to ensure optimal performance and reliability.](#)
4. [CSC/N1339: Collaboratively coordinate with the team](#)
5. [CSC/N0505: Follow health, safety and environment guidelines at workplace](#)
6. [DGT/VSQ/N0102: Employability Skills \(60 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Capital Goods
Sub-Sector	Welding, Machining, Manufacturing
Occupation	Welding and Cutting
Country	India
NSQF Level	6

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Credits	22
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7412.0101
Minimum Educational Qualification & Experience	<p>Completed 4 year UG program (Mechanical/Automobile/Electrical/Electronics) OR Completed 2nd year diploma after 12th with 3 Years of experience relevant OR Previous relevant Qualification of NSQF Level (5.5) with 1.5 years of experience relevant OR Previous relevant Qualification of NSQF Level (5) with 3 Years of experience relevant</p>
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	08/05/2028
NSQC Approval Date	08/05/2025
Version	1.0
Reference code on NQR	QG-06-IT-04196-2025-V1-CGSC
NQR Version	1.0

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CSC/N0218: Oversee Automated welding operations to ensure compliance with project specifications and requirements.

Description

This NOS unit is about to Oversee Automated welding operations to ensure compliance with project specifications and requirements.

Scope

The scope covers the following :

- Interpretation of welding specifications, project requirements, and engineering drawings to determine welding processes.
- Execution of Welding Tasks with precision and accuracy.
- Monitor welding processes and inspect completed welds to verify compliance with specs and project requirements.

Elements and Performance Criteria

Interpretation of welding specifications, project requirements, and engineering drawings to determine welding processes.

To be competent, the user/individual on the job must be able to:

- PC1. Comprehend welding specifications provided in documents such as welding procedure specifications (WPS), welding symbols, and weldment drawings, identifying key parameters like weld size, type, and joint configuration.
- PC2. Evaluate project requirements and constraints, including material types, thicknesses, and environmental factors, to determine the most suitable welding processes, techniques, and equipment needed to meet project objectives.
- PC3. Interpret engineering drawings and blueprints, extracting essential information such as weld symbols, dimensions, tolerances, and welding symbols, to visualize the welding requirements and plan the execution of welding tasks accordingly.

Execution of Welding Tasks with precision and accuracy.

To be competent, the user/individual on the job must be able to:

- PC4. Utilize appropriate welding techniques and methods, including arc length control, travel speed, and electrode manipulation, to achieve consistent and uniform weld bead formation while ensuring proper fusion and penetration.
- PC5. Monitor and adjust welding parameters such as voltage, current, wire feed speed, and shielding gas flow rate to maintain optimal conditions for the welding process, minimizing defects and ensuring weld quality.
- PC6. Adhere to Safety Protocols and procedures, including the use of personal protective equipment (PPE), proper ventilation, and safe handling of welding equipment, to ensure a safe working environment for oneself and others

Monitor welding processes and inspect completed welds to verify compliance with specs and project requirements.

To be competent, the user/individual on the job must be able to:

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- PC7. Monitor welding parameters and conditions throughout the welding process, including voltage, current, travel speed, and shielding gas flow, to ensure consistency and adherence to specified parameters.
- PC8. Inspect completed welds visually for defects such as cracks, porosity, incomplete fusion, or inadequate penetration, comparing the results against specified acceptance criteria outlined in welding procedures and project requirements.
- PC9. Utilize non-destructive testing techniques such as ultrasonic testing (UT), magnetic particle testing (MT), or dye penetrant testing (PT) to detect internal defects or discontinuities in welds that may not be visible to the naked eye.
- PC10. Maintain documentation of inspection results, including any deviations from specifications or project requirements, along with corrective actions taken, providing clear and comprehensive reports for quality control purposes and traceability.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. organization procedures for health, safety and security, individual role and responsibilities in this context
- KU2. the organization's emergency procedures for different emergency situations and the importance of following the same
- KU3. Welding Processes and Technique: Knowledge of various welding processes such as MIG (GMAW), TIG (GTAW), Stick (SMAW), and Flux-Cored (FCAW), including their respective applications, advantages, and limitations.
- KU4. Interpretation of Weld Symbols and Drawings: Understanding of welding symbols, engineering drawings, and specifications to interpret weld joint designs, dimensions, symbols, and welding requirements outlined in welding procedure specifications (WPS) and project documentation.
- KU5. Welding Materials and Metallurgy: Familiarity with different types of welding materials (e.g., carbon steel, stainless steel, aluminum alloys) and their properties, including metallurgical considerations such as heat input, distortion, and post-weld heat treatment requirements.
- KU6. Welding Safety and Health Practices: Knowledge of welding safety protocols, hazards associated with welding operations, and the proper use of personal protective equipment (PPE), ventilation systems, and safety precautions to prevent accidents, injuries, and exposure to harmful fumes and radiation.
- KU7. Quality Control and Inspection Procedures: Understanding of quality control principles, inspection techniques, and acceptance criteria for weldments, including visual inspection, non-destructive testing (NDT), and destructive testing methods, to ensure compliance with specifications and project requirements.
- KU8. Safety Precautions and Hazards: Understanding of potential hazards associated with welding processes, such as arc flash, fumes, and radiation, and knowledge of safety precautions, including the use of personal protective equipment (PPE), proper ventilation, and fire prevention measures.
- KU9. Project Specifications and Requirements: Familiarity with project specifications, requirements, and deadlines, including weld size, joint configurations, and tolerances specified in engineering drawings or welding procedure specifications (WPS), ensuring adherence to project timelines and quality standards.

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Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1. read safety instructions/guidelines
- GS2. modify work practices to improve them
- GS3. work with supervisors/team members to carry out work related tasks
- GS4. complete tasks efficiently and accurately within stipulated time
- GS5. inform/report to concerned person in case of any problem
- GS6. make timely decisions for efficient utilization of resources
- GS7. write reports such as accident report, in at least English/regional language

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Interpretation of welding specifications, project requirements, and engineering drawings to determine welding processes.</i>	10	10	-	6
PC1. Comprehend welding specifications provided in documents such as welding procedure specifications (WPS), welding symbols, and weldment drawings, identifying key parameters like weld size, type, and joint configuration.	3	2	-	2
PC2. Evaluate project requirements and constraints, including material types, thicknesses, and environmental factors, to determine the most suitable welding processes, techniques, and equipment needed to meet project objectives.	3	4	-	2
PC3. Interpret engineering drawings and blueprints, extracting essential information such as weld symbols, dimensions, tolerances, and welding symbols, to visualize the welding requirements and plan the execution of welding tasks accordingly.	4	4	-	2
<i>Execution of Welding Tasks with precision and accuracy.</i>	15	15	-	10
PC4. Utilize appropriate welding techniques and methods, including arc length control, travel speed, and electrode manipulation, to achieve consistent and uniform weld bead formation while ensuring proper fusion and penetration.	5	5	-	3
PC5. Monitor and adjust welding parameters such as voltage, current, wire feed speed, and shielding gas flow rate to maintain optimal conditions for the welding process, minimizing defects and ensuring weld quality.	5	5	-	3
PC6. Adhere to Safety Protocols and procedures, including the use of personal protective equipment (PPE), proper ventilation, and safe handling of welding equipment, to ensure a safe working environment for oneself and others	5	5	-	4
<i>Monitor welding processes and inspect completed welds to verify compliance with specs and project requirements.</i>	15	15	-	4

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC7. Monitor welding parameters and conditions throughout the welding process, including voltage, current, travel speed, and shielding gas flow, to ensure consistency and adherence to specified parameters.	5	4	-	1
PC8. Inspect completed welds visually for defects such as cracks, porosity, incomplete fusion, or inadequate penetration, comparing the results against specified acceptance criteria outlined in welding procedures and project requirements.	4	3	-	1
PC9. Utilize non-destructive testing techniques such as ultrasonic testing (UT), magnetic particle testing (MT), or dye penetrant testing (PT) to detect internal defects or discontinuities in welds that may not be visible to the naked eye.	3	4	-	1
PC10. Maintain documentation of inspection results, including any deviations from specifications or project requirements, along with corrective actions taken, providing clear and comprehensive reports for quality control purposes and traceability.	3	4	-	1
NOS Total	40	40	-	20

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National Occupational Standards (NOS) Parameters

NOS Code	CSC/N0218
NOS Name	Oversee Automated welding operations to ensure compliance with project specifications and requirements.
Sector	Capital Goods
Sub-Sector	
Occupation	Welding and Cutting
NSQF Level	6
Credits	2
Version	1.0
Last Reviewed Date	08/05/2025
Next Review Date	08/05/2028
NSQC Clearance Date	08/05/2025

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CSC/N0219: Set up and program the controllers in Automated welding systems(including Robotic Arm Configuration)

Description

This unit is about to Set up and program the controllers in Automated welding systems(including Robotic Arm Configuration)

Scope

The scope covers the following :

- Perform system configuration of automated welding system by setting up robotic arms.
- Conduct programming of welding parameters such as voltage, current, wire feed speed, travel speed.
- Implement Motion Path Planning for the robotic arm(s) to follow during welding.

Elements and Performance Criteria

Perform system configuration of automated welding system by setting up robotic arms

To be competent, the user/individual on the job must be able to:

- PC1. Perform installation and mounting of robotic arms onto designated fixtures or mounting points within the welding cell, ensuring stability and alignment with the workpiece.
- PC2. Attach the appropriate end effectors or welding torches to the robotic arms, considering factors such as tooling compatibility, reach requirements, and welding process specifications.
- PC3. Conduct calibration procedures to ensure accurate positioning and movement of the robotic arms, verifying alignment with programmed motion paths and workspace boundaries.

Conduct programming of welding parameters such as voltage, current, wire feed speed, travel speed

To be competent, the user/individual on the job must be able to:

- PC4. Comprehensive understanding of various welding processes (e.g., MIG/MAG, TIG, stick), including their characteristics, advantages, and limitations, to determine the appropriate parameters for each process.
- PC5. Proficiency in programming welding parameters such as voltage, current, wire feed speed, and travel speed into the control system of the welding equipment or robotic welder, using the appropriate programming language or software interface.
- PC6. Optimize welding parameters based on material type, thickness, joint configuration, and desired weld quality, considering factors such as penetration, fusion, deposition rate, and spatter reduction.

Implement Motion Path Planning for the robotic arm(s) to follow during welding

To be competent, the user/individual on the job must be able to:

- PC7. Knowledge of the geometry of the weld joint, including its shape, dimensions, and orientation, to develop a motion path that ensures complete coverage and proper fusion of the weld.
- PC8. Proficiency in programming robotic arm motion using specialized software or programming languages, including defining start points, end points, trajectories, and any intermediate points or waypoints required for the welding operation.

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- PC9. Ensure safety considerations, such as clearance distances from obstacles or other equipment, and optimize the motion path to minimize unnecessary movements and maximize efficiency in welding operations.
- PC10. Conduct real-world testing and validation of the motion path on the actual welding setup, observing the robotic arm's movements and weld quality to verify compliance with project requirements and specifications.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. organization procedures for health, safety and security, individual role and responsibilities in this context
- KU2. the organization's emergency procedures for different emergency situations and the importance of following the same
- KU3. Welding Processes and Techniques: Understanding of various welding processes (e.g., MIG/MAG, TIG, stick) and their applications, including the principles of operation, advantages, limitations, and suitable materials.
- KU4. Robotic Systems and Equipment: Knowledge of robotic welding systems, including robotic arms, controllers, end effectors, and peripheral equipment such as wire feeders and torches, understanding their functions, capabilities, and integration requirements.
- KU5. Programming Languages and Software: Familiarity with programming languages and software used to program robotic welding systems, such as Robot Programming Language (RPL), teach pendant interfaces, or offline programming software like RoboDK or RobotStudio.
- KU6. Welding Parameters and Settings: Understanding of welding parameters such as voltage, current, wire feed speed, travel speed, and shielding gas flow rate, and their effects on weld quality, penetration, and deposition rate.
- KU7. Safety Procedures and Regulations: Knowledge of safety procedures and regulations related to welding operations, including proper handling of equipment, use of personal protective equipment (PPE), and compliance with workplace safety standards.
- KU8. Troubleshooting and Maintenance: Awareness of common issues and troubleshooting techniques related to automated welding systems, as well as preventive maintenance procedures to ensure optimal performance and minimize downtime.

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1. follow instructions, guidelines, procedures, rules, and service level agreements
- GS2. listen effectively and communicate information accurately
- GS3. follow rule-based decision-making processes
- GS4. make decisions on suitable courses
- GS5. plan and organize the work to achieve targets and meet deadlines
- GS6. apply problem-solving approaches to different situations
- GS7. analyze the business impact and disseminate relevant information to others



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- GS8. apply balanced judgments to different situations
- GS9. check the work is complete and free from errors

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Perform system configuration of automated welding system by setting up robotic arms</i>	10	10	-	6
PC1. Perform installation and mounting of robotic arms onto designated fixtures or mounting points within the welding cell, ensuring stability and alignment with the workpiece.	3	2	-	2
PC2. Attach the appropriate end effectors or welding torches to the robotic arms, considering factors such as tooling compatibility, reach requirements, and welding process specifications.	3	4	-	2
PC3. Conduct calibration procedures to ensure accurate positioning and movement of the robotic arms, verifying alignment with programmed motion paths and workspace boundaries.	4	4	-	2
<i>Conduct programming of welding parameters such as voltage, current, wire feed speed, travel speed</i>	15	15	-	10
PC4. Comprehensive understanding of various welding processes (e.g., MIG/MAG, TIG, stick), including their characteristics, advantages, and limitations, to determine the appropriate parameters for each process.	5	5	-	3
PC5. Proficiency in programming welding parameters such as voltage, current, wire feed speed, and travel speed into the control system of the welding equipment or robotic welder, using the appropriate programming language or software interface.	5	5	-	3
PC6. Optimize welding parameters based on material type, thickness, joint configuration, and desired weld quality, considering factors such as penetration, fusion, deposition rate, and spatter reduction.	5	5	-	4
<i>Implement Motion Path Planning for the robotic arm(s) to follow during welding</i>	15	15	-	4

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC7. Knowledge of the geometry of the weld joint, including its shape, dimensions, and orientation, to develop a motion path that ensures complete coverage and proper fusion of the weld.	5	5	-	1
PC8. Proficiency in programming robotic arm motion using specialized software or programming languages, including defining start points, end points, trajectories, and any intermediate points or waypoints required for the welding operation.	3	3	-	1
PC9. Ensure safety considerations, such as clearance distances from obstacles or other equipment, and optimize the motion path to minimize unnecessary movements and maximize efficiency in welding operations.	3	3	-	1
PC10. Conduct real-world testing and validation of the motion path on the actual welding setup, observing the robotic arm's movements and weld quality to verify compliance with project requirements and specifications.	4	4	-	1
NOS Total	40	40	-	20

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National Occupational Standards (NOS) Parameters

NOS Code	CSC/N0219
NOS Name	Set up and program the controllers in Automated welding systems(including Robotic Arm Configuration)
Sector	Capital Goods
Sub-Sector	
Occupation	Welding and Cutting
NSQF Level	6
Credits	5
Version	1.0
Last Reviewed Date	08/05/2025
Next Review Date	08/05/2028
NSQC Clearance Date	08/05/2025

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CSC/N0220: Manage issues and oversee the routine maintenance on welding automation systems to ensure optimal performance and reliability.

Description

This unit is about to Manage issues and Oversee the routine maintenance on welding automation systems to ensure optimal performance and reliability.

Scope

The scope covers the following :

- Identify and diagnose equipment malfunctions through systematic analysis of symptoms
- Perform repair tasks such as replacing faulty components, adjusting settings to rectify identified issues.
- Execute routine maintenance tasks including cleaning, lubrication, inspection of mechanical and electrical components, and calibration of sensors.

Elements and Performance Criteria

Identify and diagnose equipment malfunctions through systematic analysis of symptoms

To be competent, the user/individual on the job must be able to:

- PC1. Assess & analyze symptoms of equipment malfunctions, such as abnormal noises, inconsistent weld quality, error messages, or unexpected machine behaviour, to pinpoint potential issues.
- PC2. Utilize diagnostic tools and techniques, including multimeters, oscilloscopes, and software-based diagnostic programs, to gather data and perform tests that help identify the root causes of equipment malfunctions
- PC3. Consult technical documentation such as equipment manuals, schematics, and troubleshooting guides to understand the normal operation parameters and identify deviations that indicate specific malfunctions.

Perform repair tasks such as replacing faulty components, adjusting settings to rectify identified issues

To be competent, the user/individual on the job must be able to:

- PC4. Identify and replace faulty components such as sensors, actuators, wiring, or control modules using proper tools and techniques, ensuring the new components are correctly installed and compatible with the system.
- PC5. Implement adjustment of system settings and parameters, such as welding voltage, current, wire feed speed, and robotic arm movement paths, to correct performance issues and ensure the equipment operates within specified tolerances and standards.
- PC6. Conduct thorough testing and validation of the repairs by running the equipment through its operational cycles, monitoring for proper functionality and performance, and ensuring that the identified issues have been effectively rectified.

Execute routine maintenance tasks including cleaning, lubrication, inspection of mechanical and electrical components, and calibration of sensors

To be competent, the user/individual on the job must be able to:

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- PC7. Perform regular cleaning of the welding automation equipment regularly to remove dust, debris, and welding residues that can affect the performance and longevity of the equipment.
- PC8. Conduct lubrication to moving parts and mechanical components as specified in the equipment maintenance manual, ensuring smooth operation and reducing wear and tear.
- PC9. Inspect mechanical components (e.g., gears, bearings, and joints) and electrical components (e.g., wiring, connectors, and control units) for signs of wear, damage, or loose connections, taking corrective actions as necessary to prevent equipment failure.
- PC10. Calibrate sensors, controllers, and other measurement devices to ensure accurate readings and proper functioning, following the manufacturer's calibration procedures and using the appropriate tools and reference standards.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. organization procedures for health, safety and security, individual role and responsibilities in this context
- KU2. the organization's emergency procedures for different emergency situations and the importance of following the same
- KU3. Principles of Welding Automation: Understanding the fundamental principles of welding automation, including the types of welding processes used, the function of automated systems, and the integration of robotic arms and control units.
- KU4. Mechanical and Electrical Systems: Knowledge of the mechanical and electrical systems that make up welding automation equipment, including motors, gears, sensors, actuators, wiring, and control circuits.
- KU5. Diagnostic Tools and Techniques: Familiarity with diagnostic tools and techniques used to identify and analyze equipment malfunctions, such as multimeters, oscilloscopes, diagnostic software, and troubleshooting guides.
- KU6. Maintenance Procedures and Schedules: Understanding of routine maintenance procedures and schedules, including cleaning, lubrication, inspection, and calibration tasks, as specified by equipment manufacturers.
- KU7. Safety Standards and Regulations: Knowledge of safety standards and regulations related to welding automation equipment, including proper handling of electrical components, use of personal protective equipment (PPE), and compliance with workplace safety protocols.
- KU8. Technical Documentation: Ability to read and interpret technical documentation, such as equipment manuals, schematics, wiring diagrams, and maintenance logs, to understand equipment specifications and maintenance requirements.

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1. follow instructions, guidelines, procedures, rules, and service level agreements
- GS2. listen effectively and communicate information accurately
- GS3. follow rule-based decision-making processes

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- GS4. make decisions on suitable courses
- GS5. plan and organize the work to achieve targets and meet deadlines
- GS6. apply problem-solving approaches to different situations
- GS7. analyze the business impact and disseminate relevant information to others
- GS8. apply balanced judgments to different situations
- GS9. check the work is complete and free from errors

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Identify and diagnose equipment malfunctions through systematic analysis of symptoms</i>	10	10	-	7
PC1. Assess & analyze symptoms of equipment malfunctions, such as abnormal noises, inconsistent weld quality, error messages, or unexpected machine behaviour, to pinpoint potential issues.	3	3	-	2
PC2. Utilize diagnostic tools and techniques, including multimeters, oscilloscopes, and software-based diagnostic programs, to gather data and perform tests that help identify the root causes of equipment malfunctions	3	3	-	2
PC3. Consult technical documentation such as equipment manuals, schematics, and troubleshooting guides to understand the normal operation parameters and identify deviations that indicate specific malfunctions.	4	4	-	3
<i>Perform repair tasks such as replacing faulty components, adjusting settings to rectify identified issues</i>	12	12	-	9
PC4. Identify and replace faulty components such as sensors, actuators, wiring, or control modules using proper tools and techniques, ensuring the new components are correctly installed and compatible with the system.	4	4	-	3
PC5. Implement adjustment of system settings and parameters, such as welding voltage, current, wire feed speed, and robotic arm movement paths, to correct performance issues and ensure the equipment operates within specified tolerances and standards.	4	4	-	3
PC6. Conduct thorough testing and validation of the repairs by running the equipment through its operational cycles, monitoring for proper functionality and performance, and ensuring that the identified issues have been effectively rectified.	4	4	-	3
<i>Execute routine maintenance tasks including cleaning, lubrication, inspection of mechanical and electrical components, and calibration of sensors</i>	18	18	-	4

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC7. Perform regular cleaning of the welding automation equipment regularly to remove dust, debris, and welding residues that can affect the performance and longevity of the equipment.	5	5	-	1
PC8. Conduct lubrication to moving parts and mechanical components as specified in the equipment maintenance manual, ensuring smooth operation and reducing wear and tear.	5	5	-	1
PC9. Inspect mechanical components (e.g., gears, bearings, and joints) and electrical components (e.g., wiring, connectors, and control units) for signs of wear, damage, or loose connections, taking corrective actions as necessary to prevent equipment failure.	4	4	-	1
PC10. Calibrate sensors, controllers, and other measurement devices to ensure accurate readings and proper functioning, following the manufacturer's calibration procedures and using the appropriate tools and reference standards.	4	4	-	1
NOS Total	40	40	-	20

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National Occupational Standards (NOS) Parameters

NOS Code	CSC/N0220
NOS Name	Manage issues and oversee the routine maintenance on welding automation systems to ensure optimal performance and reliability.
Sector	Capital Goods
Sub-Sector	
Occupation	Welding and Cutting
NSQF Level	6
Credits	9
Version	1.0
Last Reviewed Date	08/05/2025
Next Review Date	08/05/2028
NSQC Clearance Date	08/05/2025

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CSC/N1339: Collaboratively coordinate with the team

Description

This OS unit is about building relationships and working with people and groups inside and outside the organization, using skills and habits, to achieve the team goals and objectives

Scope

The scope covers the following :

- This unit/task covers the following:
- Creating team environment
- Communicating - giving and receiving
- Working cooperatively
- Participating in team decision making
- Demonstrating Sense of Responsibility
- Showing respect for opinions, customs, and preferences

Elements and Performance Criteria

Communicate effectively at the workplace

To be competent, the user/individual on the job must be able to:

- PC1. exchange information and instruction with colleagues, and seek clarifications and feedback
- PC2. assist colleagues where required
- PC3. follow business communication etiquette in all interactions and communicative formats (online, digital, and in-person)
- PC4. document and share all relevant information with stakeholders in agreed formats and as per agreed timelines

Work effectively

To be competent, the user/individual on the job must be able to:

- PC5. identify and obtain clarity regarding organisational, team and own goals and targets
- PC6. prioritise and plan work in order to achieve goals and targets
- PC7. monitor own and team performance as per agreed plan
- PC8. complete duties accurately, systematically and within required timeframes
- PC9. express emotions appropriately at the workplace and manage own response to heightened emotions
- PC10. maintain orderliness and cleanliness in the work area Maintain and enhance professional competence
- PC11. identify own strengths and weaknesses in relation to goals and targets
- PC12. adapt self, service, or product to meet success criteria
- PC13. seek and select opportunities for continuous professional development
- PC14. formulate a professional development plan to enhance capabilities

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- PC15. build or contribute to the organizational knowledge base of cases, clients, issues, solutions, and innovations
- PC16. examine developments and trends in field of work and their potential impact on work
- PC17. take feedback from peers, supervisors and clients to improve own performance and practices

Work in a disciplined and ethical manner

To be competent, the user/individual on the job must be able to:

- PC18. perform tasks as per workplace standards, organizational policies and legislative requirements
- PC19. display appropriate professional appearance at the workplace and adhere to the organizational dress code
- PC20. demonstrate responsible and disciplined behavior at the workplace such as punctuality; completing tasks as per given time and standards; demonstrating professional behavior at all times, adopting environment- friendly practices, etc.
- PC21. identify the cause of conflict and options for resolution with peers or escalate grievances and problems to appropriate authority as per procedure for conflict resolution
- PC22. protect the rights of the client and organization when delivering services
- PC23. ensure services are delivered equally to all clients regardless of personal and cultural beliefs
- PC24. operate within an agreed ethical code of practice and report unethical conduct to the appropriate authorities
- PC25. follow organizational guidelines and legal requirements on disclosure and confidentiality

Uphold social diversity at the workplace

To be competent, the user/individual on the job must be able to:

- PC26. recognize and evaluate biased practices against underrepresented groups like women and persons with disabilities, in workplace systems and processes
- PC27. identify and report discrimination and harassment based on gender, disability, or cultural difference at the workplace
- PC28. use inclusive or neutral language and gestures in all interactions
- PC29. respect the personal and professional space of others
- PC30. access grievance redressal mechanisms as per legislations

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. the organisation's policies and procedures for working with colleagues, roles and responsibilities
- KU2. the importance of effective communication and establishing good working relationships with colleagues
- KU3. different methods of communication and the circumstances in which it is appropriate to use these
- KU4. the importance of creating an environment of trust and mutual respect
- KU5. the implications of own work on the work and schedule of others
- KU6. different types of information that colleagues might need and the importance of providing this information when it is required

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KU7. the importance of helping colleagues with problems, to meet quality and time standards as a team

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1. read and write instructions, guidelines, procedures, messages, emails, and other media in language of the workplace
- GS2. communicate in common and technical terms in language of the workplace
- GS3. listen effectively and orally communicate information
- GS4. be punctual, do work scheduling and reporting
- GS5. comply with workplace practices and ethics
- GS6. maintain cleanliness and healthy environment
- GS7. be customer friendly - understand real needs of the customer and suggest most appropriate solution
- GS8. be safety conscious and avoid risk
- GS9. be observant, vigilant, and security consciousness
- GS10. respond, handle problem, and escalate as necessary
- GS11. ask for clarification and advice from concerned persons
- GS12. make decisions on a suitable course of action or response keeping in view resource utilization while meeting commitments
- GS13. plan and organize work to achieve targets and deadlines

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Communicate effectively at the workplace</i>	7	20	-	-
PC1. exchange information and instruction with colleagues, and seek clarifications and feedback	-	-	-	-
PC2. assist colleagues where required	-	-	-	-
PC3. follow business communication etiquette in all interactions and communicative formats (online, digital, and in-person)	-	-	-	-
PC4. document and share all relevant information with stakeholders in agreed formats and as per agreed timelines	-	-	-	-
<i>Work effectively</i>	7	20	-	-
PC5. identify and obtain clarity regarding organisational, team and own goals and targets	-	-	-	-
PC6. prioritise and plan work in order to achieve goals and targets	-	-	-	-
PC7. monitor own and team performance as per agreed plan	-	-	-	-
PC8. complete duties accurately, systematically and within required timeframes	-	-	-	-
PC9. express emotions appropriately at the workplace and manage own response to heightened emotions	-	-	-	-
PC10. maintain orderliness and cleanliness in the work area Maintain and enhance professional competence	-	-	-	-
PC11. identify own strengths and weaknesses in relation to goals and targets	-	-	-	-
PC12. adapt self, service, or product to meet success criteria	-	-	-	-
PC13. seek and select opportunities for continuous professional development	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. formulate a professional development plan to enhance capabilities	-	-	-	-
PC15. build or contribute to the organizational knowledge base of cases, clients, issues, solutions, and innovations	-	-	-	-
PC16. examine developments and trends in field of work and their potential impact on work	-	-	-	-
PC17. take feedback from peers, supervisors and clients to improve own performance and practices	-	-	-	-
<i>Work in a disciplined and ethical manner</i>	8	20	-	-
PC18. perform tasks as per workplace standards, organizational policies and legislative requirements	-	-	-	-
PC19. display appropriate professional appearance at the workplace and adhere to the organizational dress code	-	-	-	-
PC20. demonstrate responsible and disciplined behavior at the workplace such as punctuality; completing tasks as per given time and standards; demonstrating professional behavior at all times, adopting environment- friendly practices, etc.	-	-	-	-
PC21. identify the cause of conflict and options for resolution with peers or escalate grievances and problems to appropriate authority as per procedure for conflict resolution	-	-	-	-
PC22. protect the rights of the client and organization when delivering services	-	-	-	-
PC23. ensure services are delivered equally to all clients regardless of personal and cultural beliefs	-	-	-	-
PC24. operate within an agreed ethical code of practice and report unethical conduct to the appropriate authorities	-	-	-	-
PC25. follow organizational guidelines and legal requirements on disclosure and confidentiality	-	-	-	-
<i>Uphold social diversity at the workplace</i>	8	10	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC26. recognize and evaluate biased practices against underrepresented groups like women and persons with disabilities, in workplace systems and processes	-	-	-	-
PC27. identify and report discrimination and harassment based on gender, disability, or cultural difference at the workplace	-	-	-	-
PC28. use inclusive or neutral language and gestures in all interactions	-	-	-	-
PC29. respect the personal and professional space of others	-	-	-	-
PC30. access grievance redressal mechanisms as per legislations	-	-	-	-
NOS Total	30	70	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CSC/N1339
NOS Name	Collaboratively coordinate with the team
Sector	Capital Goods
Sub-Sector	Generic
Occupation	Generic
NSQF Level	5
Credits	3
Version	1.0
Last Reviewed Date	01/10/2025
Next Review Date	01/10/2030
NSQC Clearance Date	01/10/2025

Qualification Pack

CSC/N0505: Follow health, safety and environment guidelines at workplace

Description

This OS unit is about following adequate safety procedures to make work environment healthy and safe

Scope

The scope covers the following :

- This unit/task covers the following:
- Adhere to standard safety procedures of the company
- Follow healthy practices and posture
- Practice waste management and recycling
- Conserve material and resources

Elements and Performance Criteria

Adhere to standard safety procedures of the organisation

To be competent, the user/individual on the job must be able to:

- PC1. comply with general safety procedures and those for handling equipment, tools, chemicals, and hazardous material, as prescribed and followed in the organisation
- PC2. remove finger rings or any other metal objects likely to interfere with the work
- PC3. ensure that identification badge or any other object worn around the neck or on the clothing does not get caught in any rotating machine, or otherwise interfere with the work
- PC4. use appropriate safety devices such as goggles, gloves, ear plugs, caps, ESD pins, covers, shoes, helmets etc. recommended for the work being performed
- PC5. inform, escalate, or raise alarm about any suspicions, unaccounted hazardous material, devices, or other objects found in the premises
- PC6. inform, escalate, or raise alarm about any breach of safety or security procedure in the organisation
- PC7. help achieve zero accidents goals at work
- PC8. avoid damage to sensitive electronic components due to negligence of ESD procedures
- PC9. participate regularly in fire drills or other safety related workshops organised by the organisation
- PC10. follow strictly all access control and perimeter safety procedures in designated factory areas such as robotic work stations, automated production lines, automated material movement and other potentially risky operations
- PC11. ensure that other people follow all access control and perimeter safety procedures in designated factory areas and help avoid accidents
- PC12. use emergency switches or other mechanisms of stopping a machine immediately in case any emergency situation has developed or about to happen
- PC13. ensure that electrical equipment are properly grounded
- PC14. follow Cyber Security guidelines and be vigilant at workplace

Qualification Pack

PC15. proceed to designated safe assembly area immediately on hearing fire alarm

Follow healthy practices and posture

To be competent, the user/individual on the job must be able to:

PC16. wash hands and use sanitizers as recommended to prevent spread of diseases

PC17. follow common personal hygiene practices

PC18. maintain appropriate posture, especially in long hours of sitting or standing position and in handling heavy materials

PC19. participate in company organised health sessions such as exercises, games, yoga, physiotherapy, and other activities

PC20. handle heavy and hazardous materials with care, while maintaining appropriate posture, using suitable tools, and handling equipment such as trolleys, jacks, and ladders

PC21. learn and apply first aid devices available in the workplace

PC22. learn and apply safety and handling procedures for electrical shock and electrocution

PC23. learn and apply emergency medical help services

PC24. follow workplace decorum and avoid emotional outbursts or inappropriate language

PC25. prevent any harassment at workplace

Practice waste management and recycling

To be competent, the user/individual on the job must be able to:

PC26. identify recyclable, non-recyclable, and hazardous waste generated in the workplace and comply with their disposal procedures

PC27. dispose non-recyclable waste and hazardous waste following recommended processes

PC28. deposit recyclable and reusable material at identified locations

PC29. support education and compliance of waste management processes

Conserve material and resources

To be competent, the user/individual on the job must be able to:

PC30. identify ways to optimize usage of material and resources such as water, electricity, energy in various tasks, activities, and processes

PC31. check for spills and leakages of material in various tasks, activities, and processes and plug them

PC32. escalate the leakage issue to appropriate authority if needed

PC33. carry out routine cleaning of tools, machines, and equipment and maintain them in good working condition to optimize efficiency and wastage

PC34. check if the equipment is functioning normally before commencing work and rectify or report any malfunctioning to the responsible agency

PC35. check for any odour, sparks, fumes, emission, unusual vibration, noise, or any other objectionable presence in the environment and take immediate corrective action followed by report to responsible agency

PC36. ensure electrical equipment are properly connected for use and are switched off when not in use

PC37. support education and compliance of resource conservation processes

Knowledge and Understanding (KU)

Qualification Pack

The individual on the job needs to know and understand:

- KU1. company policies on workplace, environment, and personnel management
- KU2. company policy on occupational safety and health
- KU3. professional hazards related to nature of work and how to deal with them
- KU4. how to maintain the work area safe and secure
- KU5. how to handle hazardous materials, tools, and equipment
- KU6. emergency procedures for fire, electrocution, physical injury, wounds, etc.
- KU7. need for proper body posture and use of appropriate handling equipment
- KU8. understand electrical grounding practices
- KU9. common sources of pollution and ways to minimize it
- KU10. waste management - categorisation, colour coding, handling, and disposal procedure
- KU11. organisation policies and procedures for minimizing waste
- KU12. efficient use of electricity, material, and water in processes
- KU13. organization policies regarding network usage and security
- KU14. norms for professional behaviour at workplace and dealing with deviations

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1. communicating in the language of the workplace
- GS2. reading and interpreting documents, drawings, symbols, and instructions
- GS3. operating computer and common office equipment and diagnosing common electrical and interconnection problems
- GS4. writing notes, reports, observations, emails
- GS5. using personnel protective devices
- GS6. maintaining clean and healthy work environment
- GS7. using and operating safety devices and equipment
- GS8. conducting work following workplace security processes and rules
- GS9. responding to emergency situations pertaining to workplace
- GS10. understanding people and collaborating to create a healthy workplace

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Adhere to standard safety procedures of the organisation</i>	7	10	-	-
PC1. comply with general safety procedures and those for handling equipment, tools, chemicals, and hazardous material, as prescribed and followed in the organisation	-	-	-	-
PC2. remove finger rings or any other metal objects likely to interfere with the work	-	-	-	-
PC3. ensure that identification badge or any other object worn around the neck or on the clothing does not get caught in any rotating machine, or otherwise interfere with the work	-	-	-	-
PC4. use appropriate safety devices such as goggles, gloves, ear plugs, caps, ESD pins, covers, shoes, helmets etc. recommended for the work being performed	-	-	-	-
PC5. inform, escalate, or raise alarm about any suspicions, unaccounted hazardous material, devices, or other objects found in the premises	-	-	-	-
PC6. inform, escalate, or raise alarm about any breach of safety or security procedure in the organisation	-	-	-	-
PC7. help achieve zero accidents goals at work	-	-	-	-
PC8. avoid damage to sensitive electronic components due to negligence of ESD procedures	-	-	-	-
PC9. participate regularly in fire drills or other safety related workshops organised by the organisation	-	-	-	-
PC10. follow strictly all access control and perimeter safety procedures in designated factory areas such as robotic work stations, automated production lines, automated material movement and other potentially risky operations	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. ensure that other people follow all access control and perimeter safety procedures in designated factory areas and help avoid accidents	-	-	-	-
PC12. use emergency switches or other mechanisms of stopping a machine immediately in case any emergency situation has developed or about to happen	-	-	-	-
PC13. ensure that electrical equipment are properly grounded	-	-	-	-
PC14. follow Cyber Security guidelines and be vigilant at workplace	-	-	-	-
PC15. proceed to designated safe assembly area immediately on hearing fire alarm	-	-	-	-
<i>Follow healthy practices and posture</i>	8	10	-	-
PC16. wash hands and use sanitizers as recommended to prevent spread of diseases	-	-	-	-
PC17. follow common personal hygiene practices	-	-	-	-
PC18. maintain appropriate posture, especially in long hours of sitting or standing position and in handling heavy materials	-	-	-	-
PC19. participate in company organised health sessions such as exercises, games, yoga, physiotherapy, and other activities	-	-	-	-
PC20. handle heavy and hazardous materials with care, while maintaining appropriate posture, using suitable tools, and handling equipment such as trolleys, jacks, and ladders	-	-	-	-
PC21. learn and apply first aid devices available in the workplace	-	-	-	-
PC22. learn and apply safety and handling procedures for electrical shock and electrocution	-	-	-	-
PC23. learn and apply emergency medical help services	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC24. follow workplace decorum and avoid emotional outbursts or inappropriate language	-	-	-	-
PC25. prevent any harassment at workplace	-	-	-	-
<i>Practice waste management and recycling</i>	-	-	-	-
PC26. identify recyclable, non-recyclable, and hazardous waste generated in the workplace and comply with their disposal procedures	-	-	-	-
PC27. dispose non-recyclable waste and hazardous waste following recommended processes	-	-	-	-
PC28. deposit recyclable and reusable material at identified locations	-	-	-	-
PC29. support education and compliance of waste management processes	-	-	-	-
<i>Conserve material and resources</i>	-	-	-	-
PC30. identify ways to optimize usage of material and resources such as water, electricity, energy in various tasks, activities, and processes	-	-	-	-
PC31. check for spills and leakages of material in various tasks, activities, and processes and plug them	-	-	-	-
PC32. escalate the leakage issue to appropriate authority if needed	-	-	-	-
PC33. carry out routine cleaning of tools, machines, and equipment and maintain them in good working condition to optimize efficiency and wastage	-	-	-	-
PC34. check if the equipment is functioning normally before commencing work and rectify or report any malfunctioning to the responsible agency	-	-	-	-
PC35. check for any odour, sparks, fumes, emission, unusual vibration, noise, or any other objectionable presence in the environment and take immediate corrective action followed by report to responsible agency	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC36. ensure electrical equipment are properly connected for use and are switched off when not in use	-	-	-	-
PC37. support education and compliance of resource conservation processes	-	-	-	-
NOS Total	15	20	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CSC/N0505
NOS Name	Follow health, safety and environment guidelines at workplace
Sector	Capital Goods
Sub-Sector	Machine Tools, Dies, Moulds and Press Tools, Plastics Manufacturing Machinery, Textile Manufacturing Machinery, Process Plant Machinery, Electrical and Power Machinery, Defence Equipment, Fire-Fighting & Safety Equipment, Homeland Security
Occupation	Service
NSQF Level	5
Credits	1
Version	1.0
Last Reviewed Date	01/10/2025
Next Review Date	01/10/2030
NSQC Clearance Date	01/10/2025

Qualification Pack

DGT/VSQ/N0102: Employability Skills (60 Hours)

Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

Scope

The scope covers the following :

- Introduction to Employability Skills
- Constitutional values - Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Career Development & Goal Setting
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

Elements and Performance Criteria

Introduction to Employability Skills

To be competent, the user/individual on the job must be able to:

- PC1. identify employability skills required for jobs in various industries
- PC2. identify and explore learning and employability portals

Constitutional values - Citizenship

To be competent, the user/individual on the job must be able to:

- PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.
- PC4. follow environmentally sustainable practices

Becoming a Professional in the 21st Century

To be competent, the user/individual on the job must be able to:

- PC5. recognize the significance of 21st Century Skills for employment
- PC6. practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life

Basic English Skills

To be competent, the user/individual on the job must be able to:

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- PC7. use basic English for everyday conversation in different contexts, in person and over the telephone
- PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English
- PC9. write short messages, notes, letters, e-mails etc. in English

Career Development & Goal Setting

To be competent, the user/individual on the job must be able to:

- PC10. understand the difference between job and career
- PC11. prepare a career development plan with short- and long-term goals, based on aptitude

Communication Skills

To be competent, the user/individual on the job must be able to:

- PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings
- PC13. work collaboratively with others in a team

Diversity & Inclusion

To be competent, the user/individual on the job must be able to:

- PC14. communicate and behave appropriately with all genders and PwD
- PC15. escalate any issues related to sexual harassment at workplace according to POSH Act

Financial and Legal Literacy

To be competent, the user/individual on the job must be able to:

- PC16. select financial institutions, products and services as per requirement
- PC17. carry out offline and online financial transactions, safely and securely
- PC18. identify common components of salary and compute income, expenses, taxes, investments etc
- PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation

Essential Digital Skills

To be competent, the user/individual on the job must be able to:

- PC20. operate digital devices and carry out basic internet operations securely and safely
- PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively
- PC22. use basic features of word processor, spreadsheets, and presentations

Entrepreneurship

To be competent, the user/individual on the job must be able to:

- PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research
- PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion
- PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity

Customer Service

To be competent, the user/individual on the job must be able to:

- PC26. identify different types of customers
- PC27. identify and respond to customer requests and needs in a professional manner.

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PC28. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

To be competent, the user/individual on the job must be able to:

PC29. create a professional Curriculum vitae (Résumé)

PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively

PC31. apply to identified job openings using offline /online methods as per requirement

PC32. answer questions politely, with clarity and confidence, during recruitment and selection

PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills and different learning and employability related portals

KU2. various constitutional and personal values

KU3. different environmentally sustainable practices and their importance

KU4. Twenty first (21st) century skills and their importance

KU5. how to use English language for effective verbal (face to face and telephonic) and written communication in formal and informal set up

KU6. importance of career development and setting long- and short-term goals

KU7. about effective communication

KU8. POSH Act

KU9. Gender sensitivity and inclusivity

KU10. different types of financial institutes, products, and services

KU11. how to compute income and expenditure

KU12. importance of maintaining safety and security in offline and online financial transactions

KU13. different legal rights and laws

KU14. different types of digital devices and the procedure to operate them safely and securely

KU15. how to create and operate an e- mail account and use applications such as word processors, spreadsheets etc.

KU16. how to identify business opportunities

KU17. types and needs of customers

KU18. how to apply for a job and prepare for an interview

KU19. apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. read and write different types of documents/instructions/correspondence

GS2. communicate effectively using appropriate language in formal and informal settings

Qualification Pack

- GS3. behave politely and appropriately with all
- GS4. how to work in a virtual mode
- GS5. perform calculations efficiently
- GS6. solve problems effectively
- GS7. pay attention to details
- GS8. manage time efficiently
- GS9. maintain hygiene and sanitization to avoid infection

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
PC1. identify employability skills required for jobs in various industries	-	-	-	-
PC2. identify and explore learning and employability portals	-	-	-	-
<i>Constitutional values - Citizenship</i>	1	1	-	-
PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
PC4. follow environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	2	4	-	-
PC5. recognize the significance of 21st Century Skills for employment	-	-	-	-
PC6. practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC7. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
PC9. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
<i>Career Development & Goal Setting</i>	1	2	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. understand the difference between job and career	-	-	-	-
PC11. prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-
<i>Communication Skills</i>	2	2	-	-
PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
PC13. work collaboratively with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	2	-	-
PC14. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC15. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
<i>Financial and Legal Literacy</i>	2	3	-	-
PC16. select financial institutions, products and services as per requirement	-	-	-	-
PC17. carry out offline and online financial transactions, safely and securely	-	-	-	-
PC18. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
<i>Essential Digital Skills</i>	3	4	-	-
PC20. operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
PC22. use basic features of word processor, spreadsheets, and presentations	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Entrepreneurship</i>	2	3	-	-
PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
<i>Customer Service</i>	1	2	-	-
PC26. identify different types of customers	-	-	-	-
PC27. identify and respond to customer requests and needs in a professional manner.	-	-	-	-
PC28. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	2	3	-	-
PC29. create a professional Curriculum vitae (Résumé)	-	-	-	-
PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC31. apply to identified job openings using offline /online methods as per requirement	-	-	-	-
PC32. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
NOS Total	20	30	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0102
NOS Name	Employability Skills (60 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	4
Credits	2
Version	1.0
Last Reviewed Date	07/10/2025
Next Review Date	07/10/2028
NSQC Clearance Date	07/10/2025

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for the Qualification Pack will be created by CGSC.
2. Performance Criteria (PC) have been assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
3. The assessment for the theory part will/may be based on knowledge bank of questions approved CGSC.
4. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
5. Assessment Agencies will create Assessor Guides comprising of Theory and Practical Assessment Set and Guidelines for each examination/training centre (as per assessment criteria below). The same will be approved by CGSC for adequacy.
6. To successfully attain Certification on the Qualification Pack, the trainee must score a minimum of 70% in each Core NOS and minimum of 70% in all non-core NOS. In addition, a candidate needs to attain a minimum overall pass percentage of 70% for certification.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

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Minimum Aggregate Passing % at QP Level : 70

(Please note: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CSC/N0218.Oversee Automated welding operations to ensure compliance with project specifications and requirements.	40	40	-	20	100	15
CSC/N0219.Set up and program the controllers in Automated welding systems(including Robotic Arm Configuration)	40	40	-	20	100	20
CSC/N0220.Manage issues and oversee the routine maintenance on welding automation systems to ensure optimal performance and reliability.	40	40	-	20	100	35
CSC/N1339.Collaboratively coordinate with the team	30	70	-	-	100	10
CSC/N0505.Follow health, safety and environment guidelines at workplace	15	20	-	-	35	10
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	-	-	50	10
Total	185	240	-	60	485	100

Qualification Pack

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Qualification Pack

Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.

Qualification Pack

Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.