



Automotive Casting Operator

QP Code: ASC/Q3202

Version: 3.0

NSQF Level: 2.5

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ASC/Q3202: Automotive Casting Operator

Brief Job Description

The individual is involved in preparation of casting activities and supports the casting technician in various casting and post-casting operations.

Personal Attributes

The person should be patient, organized, team-oriented and have the ability to work for long hours in adverse conditions. They should be keen observers and have an eye for detail and quality.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [ASC/N9803: Organize work and resources \(Manufacturing\)](#)
2. [ASC/N3205: Prepare for casting process](#)
3. [ASC/N3206: Support casting technician in casting operations](#)
4. [ASC/N3207: Perform post-casting operations](#)
5. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Automotive
Sub-Sector	Manufacturing
Occupation	Casting Operation
Country	India
NSQF Level	2.5
Credits	11
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8121.3801

Minimum Educational Qualification & Experience	5th Class with 4 Years of experience OR 8th grade pass (with pursuing continuous schooling) OR 9th grade pass
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	NA
NSQC Approval Date	
Version	3.0

ASC/N9803: Organize work and resources (Manufacturing)

Description

This NOS unit is about implementing safety, planning work, adopting sustainable practices for optimising use of resources

Scope

The scope covers the following :

- Maintain safe and secure working environment
- Health and hygiene
- Perform work as per quality standards
- Effective waste management practices
- Material/energy conservation practices

Elements and Performance Criteria

Maintain safe and secure working environment

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

- PC1.** identify hazardous activities and the possible causes of risks or accidents in the workplace
- PC2.** follow safe working practices while dealing with hazards to ensure safety of self and others
- PC3.** carry out routine check of the machine for identifying potential hazards
- PC4.** use appropriate protective clothing/equipment for specific tasks and work
- PC5.** follow safety hazards and preventive techniques during fire drill
- PC6.** report any identified breaches in health, safety and security policies and procedures to the designated person

Health and hygiene

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

- PC7.** ensure workstation and equipment are regularly clean and sanitized
- PC8.** clean hands with soap, alcohol-based sanitizer regularly
- PC9.** avoid contact with ill people and self-isolate in a similar situation
- PC10.** wear and dispose PPEs regularly and appropriately
- PC11.** report advanced hygiene and sanitation issues to appropriate authority
- PC12.** follow stress and anxiety management techniques

Perform work as per quality standards

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

- PC13.** ensure that work is accomplished as per the requirements within the specified timeline
- PC14.** ensure team goals are given preference over individual goals

Effective waste management practices

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

- PC15.** follow the fundamentals of 5S for waste management
- PC16.** segregate waste into different categories

- PC17.** follow processes specified for disposal of hazardous waste
- PC18.** identify recyclable, non-recyclable and hazardous waste
- PC19.** dispose non-recyclable, recyclable and reusable waste appropriately at identified location

Material/energy conservation practices

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

- PC20.** identify ways to optimize usage of material in various tasks/activities/processes
- PC21.** check for spills/leakages in various tasks/activities/processes
- PC22.** plug spills/leakages and escalate to appropriate authority if unable to rectify
- PC23.** check if the equipment/machine is functioning normally before commencing work and rectify wherever required
- PC24.** report malfunctioning (fumes/ sparks/emission/vibration/noise) and lapse in maintenance of equipment
- PC25.** ensure electrical equipment and appliances are properly connected and turned off when not in use

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** organisation procedures for health, safety and security, individual role and responsibilities in this context
- KU2.** the organisation's emergency procedures for different emergency situations and the importance of following the same
- KU3.** evacuation procedures for workers and visitors
- KU4.** how and when to report hazards as well as the limits of responsibility for dealing with hazards
- KU5.** potential hazards, risks and threats based on the nature of work
- KU6.** preventative and remedial actions to be taken in case of exposure to toxic material
- KU7.** various types of fire extinguisher
- KU8.** various types of safety signs and their meaning
- KU9.** appropriate first aid treatment relevant to different condition e.g. bleeding, minor burns, eye injuries etc.
- KU10.** relevant standards, procedures and policies related to 5S followed in the company
- KU11.** the various materials used and their storage norms
- KU12.** efficient utilisation of material and water
- KU13.** basics of electricity and prevalent energy efficient devices
- KU14.** common practices of conserving electricity
- KU15.** common sources and ways to minimize pollution
- KU16.** categorisation of waste into dry, wet, recyclable, non-recyclable and items of single-use plastics
- KU17.** usage of different colors of dustbins
- KU18.** waste management techniques
- KU19.** significance of greening

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.** ask for clarifications from superior about the job requirement
- GS4.** work with supervisors/team members to carry out work related tasks
- GS5.** complete tasks efficiently and accurately within stipulated time
- GS6.** inform/report to concerned person in case of any problem
- GS7.** make timely decisions for efficient utilization of resources
- GS8.** write reports such as accident report, in at least English/regional language
- GS9.** be punctual and utilize time efficiently

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain safe and secure working environment</i>	11	5	-	7
PC1. identify hazardous activities and the possible causes of risks or accidents in the workplace	2	1	-	2
PC2. follow safe working practices while dealing with hazards to ensure safety of self and others	2	-	-	1
PC3. carry out routine check of the machine for identifying potential hazards	2	1	-	1
PC4. use appropriate protective clothing/equipment for specific tasks and work	2	1	-	1
PC5. follow safety hazards and preventive techniques during fire drill	2	1	-	1
PC6. report any identified breaches in health, safety and security policies and procedures to the designated person	1	1	-	1
<i>Health and hygiene</i>	7	5	-	2
PC7. ensure workstation and equipment are regularly clean and sanitized	2	2	-	1
PC8. clean hands with soap, alcohol-based sanitizer regularly	1	1	-	1
PC9. avoid contact with ill people and self-isolate in a similar situation	1	-	-	-
PC10. wear and dispose PPEs regularly and appropriately	1	-	-	-
PC11. report advanced hygiene and sanitation issues to appropriate authority	1	1	-	-
PC12. follow stress and anxiety management techniques	1	1	-	-
<i>Perform work as per quality standards</i>	5	3	-	2
PC13. ensure that work is accomplished as per the requirements within the specified timeline	2	2	-	1

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. ensure team goals are given preference over individual goals	3	1	-	1
<i>Effective waste management practices</i>	15	10	-	4
PC15. follow the fundamentals of 5S for waste management	3	2	-	1
PC16. segregate waste into different categories	2	1	-	-
PC17. follow processes specified for disposal of hazardous waste	2	2	-	1
PC18. identify recyclable, non-recyclable and hazardous waste	4	2	-	1
PC19. dispose non-recyclable, recyclable and reusable waste appropriately at identified location	4	3	-	1
<i>Material/energy conservation practices</i>	12	7	-	5
PC20. identify ways to optimize usage of material in various tasks/activities/processes	2	1	-	1
PC21. check for spills/leakages in various tasks/activities/processes	2	1	-	1
PC22. plug spills/leakages and escalate to appropriate authority if unable to rectify	2	1	-	-
PC23. check if the equipment/machine is functioning normally before commencing work and rectify wherever required	2	2	-	1
PC24. report malfunctioning (fumes/sparks/emission/vibration/noise) and lapse in maintenance of equipment	2	1	-	1
PC25. ensure electrical equipment and appliances are properly connected and turned off when not in use	2	1	-	1
NOS Total	50	30	-	20

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N9803
NOS Name	Organize work and resources (Manufacturing)
Sector	Automotive
Sub-Sector	Generic
Occupation	Generic
NSQF Level	3
Credits	TBD
Version	1.0
Last Reviewed Date	31/03/2022
Next Review Date	24/06/2026
NSQC Clearance Date	24/06/2021

ASC/N3205: Prepare for casting process

Description

This NOS is about preparing for casting operations as per the given work order and the standards specified by the organization.

Scope

The scope covers the following :

- Identify work requirements
- Prepare for casting operations

Elements and Performance Criteria

Identify work requirements

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

- PC1.** identify the work to be done by interpreting the engineering drawings/work order/SOPs and instructions from supervisor
- PC2.** identify and arrange the tools, equipment, consumables and input materials required for the job

Prepare for casting operations

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

- PC3.** use appropriate Personal Protective Equipment (PPE) for safe working in workshop
- PC4.** check the input material, tools and equipment for any defects before use
- PC5.** clean all the casting equipment and auxiliaries before starting the process
- PC6.** support the casting technician in setting the equipment and its parameters as per the job requirements and SOP
- PC7.** load/unload the workpieces on casting line and place the same securely on the designated slot/space as indicated in the work instructions

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant standards and procedures followed in the company
- KU2.** different types of casting processes
- KU3.** operation of casting machine being used for the process
- KU4.** mechanical and heat laws applicable on casting
- KU5.** Standard Operating Procedures (SOP) recommended by OEM for using tools and equipment required during casting operations
- KU6.** various parameters pertinent to casting process like sand properties- GCS, compatibility, clay and moisture percentage, squeeze pressure, metal temperature, inoculation addition, cooling time, casting hardness, tensile strength, elongation and microstructure requirement etc.

- KU7.** various processes such as furnace operation, melting process, charging method and safety process of handling hot liquid iron, furnace lining process etc.
- KU8.** how to collect and store consumables, tools etc. as per organisational procedures
- KU9.** use of appropriate PPE, material handling equipment and tools for completing the tasks
- KU10.** how to check defects the casting machine and tools
- KU11.** safety requirements during the casting work

Generic Skills (GS)

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

- GS1.** read and interpret drawings, work instructions, equipment manuals and process documents
- GS2.** communicate the process requirements to the supervisor and co-workers
- GS3.** attentively listen and comprehend the information given by the lead technician/team members
- GS4.** write work related information in English/regional language
- GS5.** recognise a workplace problem and take suitable action
- GS6.** analyse and apply the information gathered from observation, experience, reasoning or communication to act efficiently
- GS7.** plan and organise work according to the work requirements
- GS8.** complete the assigned tasks with minimum supervision
- GS9.** report to the supervisor or deal with a colleague individually, depending on the type of concern

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Identify work requirements</i>	10	12	-	6
PC1. identify the work to be done by interpreting the engineering drawings/work order/SOPs and instructions from supervisor	5	5	-	3
PC2. identify and arrange the tools, equipment, consumables and input materials required for the job	5	7	-	4
<i>Prepare for casting operations</i>	20	38	-	14
PC3. use appropriate Personal Protective Equipment (PPE) for safe working in workshop	3	3	-	2
PC4. check the input material, tools and equipment for any defects before use	4	11	-	3
PC5. clean all the casting equipment and auxiliaries before starting the process	3	7	-	2
PC6. support the casting technician in setting the equipment and its parameters as per the job requirements and SOP	5	10	-	4
PC7. load/unload the workpieces on casting line and place the same securely on the designated slot/space as indicated in the work instructions	5	7	-	3
NOS Total	30	50	-	20

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N3205
NOS Name	Prepare for casting process
Sector	Automotive
Sub-Sector	Manufacturing
Occupation	Casting Operation
NSQF Level	3
Credits	TBD
Version	2.0
Last Reviewed Date	31/08/2021
Next Review Date	31/08/2024
NSQC Clearance Date	31/08/2021

ASC/N3206: Support casting technician in casting operations

Description

This NOS is about supporting the operator in various casting operations as per the final output specifications and the standards specified by the organization.

Scope

The scope covers the following :

- Support in casting process
- Perform fettling and trimming operations

Elements and Performance Criteria

Support in casting process

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

- PC1.** support in preparing the mold by holding it in a metal frame
- PC2.** pour the molten metal into the mold at the right temperature from the refractory ladle
- PC3.** ensure that refractory ladles are pre-heated and in red hot condition, its pouring spout or lip is repaired and free from slag
- PC4.** ensure that required ferro alloys or inoculants are added during tapping or transfer operation
- PC5.** adjust the temperature and other parameters as per the casting requirement and casting technician instructions
- PC6.** record the pouring observations like parting leak, gas evolution, interrupted pouring or any abnormality during the process
- PC7.** turn valves to circulate water through cores, or spray water on filled molds and allow the poured metal to cool or solidify as per the casting technician instructions
- PC8.** monitor the process parameters by reading the various gauges and correct them if not within standards

Perform fettling and trimming operation

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

- PC9.** assist in taking out the metal from mold for fettling and trimming process
- PC10.** remove any dirt, sand, excess metal etc. from the casted workpiece
- PC11.** trim the cast to remove fins, flashes and excess metal from the surface to provide accurate shape to the cast
- PC12.** store the excess material (or runners/ risers etc.) in order to be reuse as per work instructions
- PC13.** measure the final metal casting and compare the dimensions as prescribed in the work order and engineering drawing
- PC14.** shape the metal casting, if parts are not still as per the given measurements

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant standards and procedures followed in the company
- KU2.** different types of casting processes
- KU3.** operation of casting machine being used for the process
- KU4.** Standard Operating Procedures (SOP) recommended by OEM for using tools and equipment required during casting operations
- KU5.** various parameters pertinent to casting process like sand properties- GCS, compatibility, clay and moisture percentage, squeeze pressure, metal temperature, inoculation addition, cooling time, casting hardness, tensile strength, elongation and microstructure requirement etc.
- KU6.** various processes such as furnace operation, melting process, charging method and safety process of handling hot liquid iron, furnace lining process etc.
- KU7.** how to read dials/ indicators of casting machine to ensure machine is working properly
- KU8.** use of appropriate PPE, material handling equipment and tools for completing the tasks
- KU9.** different mechanisms to perform fettling and trimming of the cast basis the size of cast and runners & risers on the surfaces
- KU10.** different types of tools such as swing frame or pedestal grinders, chipping tools, hammers, hand saws, pneumatic or electrical tools etc. required for manual fettling
- KU11.** gas cutting and flame cutting methods for semi manual fettling
- KU12.** safety requirements during the casting work

Generic Skills (GS)

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

- GS1.** read and interpret drawings, work instructions, equipment manuals and process documents
- GS2.** communicate the process requirements to the supervisor and co-workers
- GS3.** attentively listen and comprehend the information given by the lead technician/team members
- GS4.** write work related information in English/regional language
- GS5.** recognise a workplace problem and take suitable action
- GS6.** analyse and apply the information gathered from observation, experience, reasoning or communication to act efficiently
- GS7.** plan and organise work according to the work requirements
- GS8.** complete the assigned tasks with minimum supervision
- GS9.** report to the supervisor or deal with a colleague individually, depending on the type of concern

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Support in casting process</i>	17	23	-	11
PC1. support in preparing the mold by holding it in a metal frame	2	3	-	1
PC2. pour the molten metal into the mold at the right temperature from the refractory ladle	2	3	-	1
PC3. ensure that refractory ladles are pre-heated and in red hot condition, its pouring spout or lip is repaired and free from slag	2	2	-	1
PC4. ensure that required ferro alloys or inoculants are added during tapping or transfer operation	1	-	-	1
PC5. adjust the temperature and other parameters as per the casting requirement and casting technician instructions	2	3	-	1
PC6. record the pouring observations like parting leak, gas evolution, interrupted pouring or any abnormality during the process	3	4	-	2
PC7. turn valves to circulate water through cores, or spray water on filled molds and allow the poured metal to cool or solidify as per the casting technician instructions	2	4	-	2
PC8. monitor the process parameters by reading the various gauges and correct them if not within standards	3	4	-	2
<i>Perform fettling and trimming operation</i>	13	27	-	9
PC9. assist in taking out the metal from mold for fettling and trimming process	2	5	-	2
PC10. remove any dirt, sand, excess metal etc. from the casted workpiece	2	4	-	1
PC11. trim the cast to remove fins, flashes and excess metal from the surface to provide accurate shape to the cast	3	7	-	2

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. store the excess material (or runners/risers etc.) in order to be reuse as per work instructions	2	3	-	1
PC13. measure the final metal casting and compare the dimensions as prescribed in the work order and engineering drawing	2	4	-	2
PC14. shape the metal casting, if parts are not still as per the given measurements	2	4	-	1
NOS Total	30	50	-	20

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N3206
NOS Name	Support casting technician in casting operations
Sector	Automotive
Sub-Sector	Manufacturing
Occupation	Casting Operation
NSQF Level	3
Credits	TBD
Version	2.0
Last Reviewed Date	31/08/2021
Next Review Date	31/08/2024
NSQC Clearance Date	31/08/2021

ASC/N3207: Perform post-casting operations

Description

This NOS unit is about conducting inspection of casted pieces and post-inspection activities such as repairing, segregation of correct pieces, cleaning etc.

Scope

The scope covers the following :

- Perform inspection of finished goods
- Perform post-inspection activities

Elements and Performance Criteria

Perform inspection of finished goods

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

- PC1.** check the work pieces as per the work instructions for product quality
- PC2.** compare the texture, color, surface properties, hardness and strength with the given product specifications
- PC3.** note down the observations of the basic inspection process and identify pieces which are as per the specified standards

Perform post-inspection activities

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

- PC4.** rectify minor defects like excess slag, shape deformation, sharp edges, rough surfaces, grooves, holes etc. by fettling, chipping, cutting, sawing, filling, shearing, hammering etc.
- PC5.** segregate the completed pieces into Ok pieces, defective pieces which can be repaired/reworked and pieces that are beyond repair and maintain records of each category
- PC6.** tag and store the right quality pieces by following organisational policies and procedures
- PC7.** check the machine operations for any malfunctions/defects in the component and inform the supervisor/maintenance team for correction
- PC8.** dispose scrap or waste material into the disposal area in accordance with the company's policies and environmental regulations
- PC9.** report to the supervisor about any problems faced or anticipated during the complete process

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant standards and procedures followed in the company
- KU2.** basic process followed for inspection of the pieces
- KU3.** how to use measurement instruments like rulers, Vernier calipers, micrometer, weighing scale, gauges and other inspection equipment
- KU4.** various type of defects in casted products
- KU5.** how to check defects in the completed workpiece

- KU6.** post-casting processes like inspection, cleaning, maintenance etc
- KU7.** methods for cutting, shearing, hammering, drilling to repair pieces with minor defects
- KU8.** methods of storage and tagging of final product

Generic Skills (GS)

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

- GS1.** read and interpret drawings, work instructions, equipment manuals and process documents
- GS2.** communicate the process requirements to the supervisor and co-workers
- GS3.** attentively listen and comprehend the information given by the lead technician/team members
- GS4.** write work related information in English/regional language
- GS5.** recognise a workplace problem and take suitable action
- GS6.** analyse and apply the information gathered from observation, experience, reasoning or communication to act efficiently
- GS7.** plan and organise work according to the work requirements
- GS8.** complete the assigned tasks with minimum supervision
- GS9.** report to the supervisor or deal with a colleague individually, depending on the type of concern

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Perform inspection of finished goods</i>	11	20	-	8
PC1. check the work pieces as per the work instructions for product quality	4	7	-	3
PC2. compare the texture, color, surface properties, hardness and strength with the given product specifications	4	7	-	3
PC3. note down the observations of the basic inspection process and identify pieces which are as per the specified standards	3	6	-	2
<i>Perform post-inspection activities</i>	19	30	-	12
PC4. rectify minor defects like excess slag, shape deformation, sharp edges, rough surfaces, grooves, holes etc. by fettling, chipping, cutting, sawing, filling, shearing, hammering etc.	5	8	-	4
PC5. segregate the completed pieces into Ok pieces, defective pieces which can be repaired/reworked and pieces that are beyond repair and maintain records of each category	4	6	-	2
PC6. tag and store the right quality pieces by following organisational policies and procedures	3	5	-	2
PC7. check the machine operations for any malfunctions/defects in the component and inform the supervisor/maintenance team for correction	3	5	-	2
PC8. dispose scrap or waste material into the disposal area in accordance with the company's policies and environmental regulations	2	3	-	1
PC9. report to the supervisor about any problems faced or anticipated during the complete process	2	3	-	1
NOS Total	30	50	-	20

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N3207
NOS Name	Perform post-casting operations
Sector	Automotive
Sub-Sector	Manufacturing
Occupation	Casting Operation
NSQF Level	3
Credits	TBD
Version	2.0
Last Reviewed Date	31/08/2021
Next Review Date	31/08/2024
NSQC Clearance Date	31/08/2021

DGT/VSQ/N0101: Employability Skills (30 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
- 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. understand the significance of employability skills in meeting the job requirements

Constitutional values – Citizenship

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

PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices

Becoming a Professional in the 21st Century

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

PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.

Basic English Skills

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

PC4. speak with others using some basic English phrases or sentences

Communication Skills

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

PC5. follow good manners while communicating with others

PC6. work with others in a team

Diversity & Inclusion

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

PC7. communicate and behave appropriately with all genders and PwD

PC8. report any issues related to sexual harassment

Financial and Legal Literacy

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

PC9. use various financial products and services safely and securely

PC10. calculate income, expenses, savings etc.

PC11. approach the concerned authorities for any exploitation as per legal rights and laws

Essential Digital Skills

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

PC12. operate digital devices and use its features and applications securely and safely

PC13. use internet and social media platforms securely and safely

Entrepreneurship

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

PC14. identify and assess opportunities for potential business

PC15. identify sources for arranging money and associated financial and legal challenges

Customer Service

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

PC16. identify different types of customers

PC17. identify customer needs and address them appropriately

PC18. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

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

PC19. create a basic biodata

PC20. search for suitable jobs and apply

PC21. identify and register apprenticeship opportunities as per requirement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills

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 basic spoken English language

KU6. Do and dont of effective communication

KU7. inclusivity and its importance

KU8. different types of disabilities and appropriate communication and behaviour towards PwD

KU9. different types of financial products and services

KU10. how to compute income and expenses

KU11. importance of maintaining safety and security in financial transactions

- KU12.** different legal rights and laws
- KU13.** how to operate digital devices and applications safely and securely
- KU14.** ways to identify business opportunities
- KU15.** types of customers and their needs
- KU16.** how to apply for a job and prepare for an interview
- KU17.** apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

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

- GS1.** communicate effectively using appropriate language
- GS2.** behave politely and appropriately with all
- GS3.** perform basic calculations
- GS4.** solve problems effectively
- GS5.** be careful and attentive at work
- GS6.** use time effectively
- GS7.** maintain hygiene and sanitisation to avoid infection

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
<i>Constitutional values – Citizenship</i>	1	1	-	-
PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	1	3	-	-
PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC4. speak with others using some basic English phrases or sentences	-	-	-	-
<i>Communication Skills</i>	1	1	-	-
PC5. follow good manners while communicating with others	-	-	-	-
PC6. work with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	1	-	-
PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC8. report any issues related to sexual harassment	-	-	-	-
<i>Financial and Legal Literacy</i>	3	4	-	-
PC9. use various financial products and services safely and securely	-	-	-	-
PC10. calculate income, expenses, savings etc.	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
<i>Essential Digital Skills</i>	4	6	-	-
PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-
PC13. use internet and social media platforms securely and safely	-	-	-	-
<i>Entrepreneurship</i>	3	5	-	-
PC14. identify and assess opportunities for potential business	-	-	-	-
PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
<i>Customer Service</i>	2	2	-	-
PC16. identify different types of customers	-	-	-	-
PC17. identify customer needs and address them appropriately	-	-	-	-
PC18. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	1	3	-	-
PC19. create a basic biodata	-	-	-	-
PC20. search for suitable jobs and apply	-	-	-	-
PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
NOS Total	20	30	-	-

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0101
NOS Name	Employability Skills (30 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	31/08/2023
Next Review Date	31/08/2026
NSQC Clearance Date	31/08/2023

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training centre (as per assessment criteria below).
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training centre based on these criteria.
5. In case of successfully passing only certain number of NOSs, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.
6. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

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
ASC/N9803.Organize work and resources (Manufacturing)	50	30	-	20	100	15
ASC/N3205.Prepare for casting process	30	50	-	20	100	20
ASC/N3206.Support casting technician in casting operations	30	50	-	20	100	25
ASC/N3207.Perform post-casting operations	30	50	-	20	100	30
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	-	-	50	10
Total	160	210	-	80	450	100

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
PPE	Personal Protective Equipment
PwD	Person with Disability
SOP	Standard Operating Practices
PwD	Persons with Disability

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.
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.