



## Qualification Pack



# Assistant Fitter - Levelling, Alignment & Balancing

QP Code: ISC/Q0905

Version: 5.0

NSQF Level: 3

Indian Iron and Steel Sector Skill Council || Plot no.B-7, Action Area-III, 5th Floor, Room no.509, Near Hazra Kalibari, Opposite Uni World City, New Town, Kolkata, West Bengal  
Pin-700156 || email:akash@iisscc.org



## Qualification Pack

### Contents

|   |    |
|---|----|
| ISC/Q0905: Assistant Fitter - Levelling, Alignment & Balancing .....          | 3  |
| <i>Brief Job Description</i> .....  | 3  |
| Applicable National Occupational Standards (NOS) .....                        | 3  |
| <i>Compulsory NOS</i> .....   | 3  |
| <i>Qualification Pack (QP) Parameters</i> .....                               | 3  |
| ISC/N0008: Use basic health and safety practices at the workplace .....       | 5  |
| ISC/N0009: Work effectively with others .....                                 | 12 |
| ISC/N0926: Prepare for levelling, alignment and balancing work .....          | 17 |
| ISC/N0927: Carryout the operation of levelling, balancing and alignment ..... | 22 |
| ISC/N0928: Perform post-repairing activities .....                            | 27 |
| DGT/VSQ/N0101: Employability Skills (30 Hours) .....                          | 31 |
| Assessment Guidelines and Weightage .....                                     | 36 |
| <i>Assessment Guidelines</i> .....  | 36 |
| <i>Assessment Weightage</i> .....   | 37 |
| Acronyms .....  | 38 |
| Glossary .....  | 39 |



## Qualification Pack

# ISC/Q0905: Assistant Fitter - Levelling, Alignment & Balancing

## Brief Job Description

The individual in this role performs checking and correction of levelling, alignment and balancing of rotary equipment

## Personal Attributes

The person should be patient, organised, team-oriented and have the ability to work for long hours in adverse conditions. They must be able to plan and prioritise tasks effectively and have an eye for detail and quality.

## Applicable National Occupational Standards (NOS)

### Compulsory NOS:

1. [ISC/N0008: Use basic health and safety practices at the workplace](#)
2. [ISC/N0009: Work effectively with others](#)
3. [ISC/N0926: Prepare for levelling, alignment and balancing work](#)
4. [ISC/N0927: Carryout the operation of levelling, balancing and alignment](#)
5. [ISC/N0928: Perform post-repairing activities](#)
6. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

## Qualification Pack (QP) Parameters

|                   |   |
|-------------------|---|
| <b>Sector</b>     | Iron and Steel  |
| <b>Sub-Sector</b> | Steel, Sponge Iron, Ferro Alloys, Re-Rollers, Refractory, Iron Making |
| <b>Occupation</b> | Mechanical Maintenance  |
| <b>Country</b>    | India   |
| <b>NSQF Level</b> | 3   |
| <b>Credits</b>    | 14  |



## Qualification Pack

|   |  |
|---|--|
| <b>Aligned to NCO/ISCO/ISIC Code</b>                      | NCO-2015/7233.0100   |
| <b>Minimum Educational Qualification &amp; Experience</b> | 10th Class<br>OR<br>9th Class with 1.5 years of experience in relevant field<br>OR<br>Grade 8 pass with 2 years of (NTC/ NAC) after 8th (in relevant field)<br>OR<br>8th Class with 3 Years of experience in relevant field<br>OR<br>5th Class |
| <b>Minimum Level of Education for Training in School</b>  | Not Applicable   |
| <b>Pre-Requisite License or Training</b>                  | NA   |
| <b>Minimum Job Entry Age</b>                              | 18 Years   |
| <b>Last Reviewed On</b>                                   | NA   |
| <b>Next Review Date</b>                                   | 01/04/2028   |
| <b>NSQF Approval Date</b>                                 | 01/04/2025   |
| <b>Version</b>  | 5.0  |
| <b>Reference code on NQR</b>                              | QG-03-IS-03884-2025-V2-ISSSC   |
| <b>NQR Version</b>  | 1  |



## Qualification Pack

### ISC/N0008: Use basic health and safety practices at the workplace

#### Description

This OS unit is about following safety and adopting sustainable practices for optimising use of resources.

#### Scope

The scope covers the following :

- Maintain safe and secure working environment
- Emergencies, rescue and first aid procedures
- Health and hygiene
- Housekeeping and waste management
- Material and energy conservation

#### 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.** use appropriate protective clothing/equipment for specific tasks and work
- PC4.** follow appropriate safety practices while working in and around trenches, elevated places and confined areas
- PC5.** lift heavy objects safely using correct procedures
- PC6.** carry out routine check of the machine for identifying potential hazards
- PC7.** report any identified breaches in health, safety and security policies and procedures to the designated person

##### *Emergencies, rescue and first aid procedures*

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

- PC8.** use appropriate type of fire extinguisher
- PC9.** apply appropriate rescue techniques during fire hazard
- PC10.** provide appropriate first aid procedure to victims wherever required eg.in case of bleeding, burns, choking, electric shock etc.
- PC11.** follow emergency procedures such as raising alarm, safe evacuation etc.
- PC12.** attend safety training and fire drills to respond promptly during an emergency

##### *Health and hygiene*

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

- PC13.** follow regular cleaning and disinfection practices at work place using appropriate techniques and materials
- PC14.** follow hand hygiene practices at work place using appropriate techniques and materials
- PC15.** report regarding the contagious illness of self or people in close contact
- PC16.** avoid contact with ill people and self-isolate in a similar situation



## Qualification Pack

### *Housekeeping and waste management*

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

- PC17.** follow the fundamentals of 5S for housekeeping
- PC18.** ensure good housekeeping in order to prevent hazards and accidents
- PC19.** store the material, tools and equipment in the correct location and in good condition
- PC20.** segregate waste into different categories
- PC21.** identify recyclable, non-recyclable and hazardous waste
- PC22.** dispose non-recyclable, recyclable and reusable waste appropriately at identified location

### *Material and energy conservation*

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

- PC23.** identify ways to optimize usage of material in various tasks/activities/processes
- PC24.** check for spills/leakages in various tasks/activities/processes
- PC25.** plug spills/leakages and escalate to appropriate authority if unable to rectify
- PC26.** check if the equipment/machine is functioning normally before commencing work and rectify wherever required
- PC27.** 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
- 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.** categorisation of waste into dry, wet, recyclable, non-recyclable and items of single-use plastics
- KU16.** usage of different colors of dustbins



## Qualification Pack

**KU17.** waste management techniques

### 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



## Qualification Pack

### Assessment Criteria

| Assessment Criteria for Outcomes  | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| <i>Maintain safe and secure working environment</i>   | <b>10</b>    | <b>14</b>       | -             | <b>6</b>   |
| <b>PC1.</b> identify hazardous activities and the possible causes of risks or accidents in the workplace                                      | 2            | 2               | -             | 1          |
| <b>PC2.</b> follow safe working practices while dealing with hazards to ensure safety of self and others                                      | 2            | 3               | -             | 1          |
| <b>PC3.</b> use appropriate protective clothing/equipment for specific tasks and work   | 1            | 2               | -             | 1          |
| <b>PC4.</b> follow appropriate safety practices while working in and around trenches, elevated places and confined areas                      | 2            | 1               | -             | -          |
| <b>PC5.</b> lift heavy objects safely using correct procedures  | 1            | 2               | -             | 1          |
| <b>PC6.</b> carry out routine check of the machine for identifying potential hazards  | 1            | 2               | -             | 1          |
| <b>PC7.</b> report any identified breaches in health, safety and security policies and procedures to the designated person                    | 1            | 2               | -             | 1          |
| <i>Emergencies, rescue and first aid procedures</i>   | <b>6</b>     | <b>9</b>        | -             | <b>5</b>   |
| <b>PC8.</b> use appropriate type of fire extinguisher   | 1            | 1               | -             | 1          |
| <b>PC9.</b> apply appropriate rescue techniques during fire hazard  | 1            | 2               | -             | 1          |
| <b>PC10.</b> provide appropriate first aid procedure to victims wherever required eg.in case of bleeding, burns, choking, electric shock etc. | 2            | 2               | -             | 1          |
| <b>PC11.</b> follow emergency procedures such as raising alarm, safe evacuation etc.  | 1            | 2               | -             | 1          |
| <b>PC12.</b> attend safety training and fire drills to respond promptly during an emergency   | 1            | 2               | -             | 1          |
| <i>Health and hygiene</i>   | <b>2</b>     | <b>6</b>        | -             | <b>2</b>   |



## Qualification Pack

| Assessment Criteria for Outcomes   | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| <b>PC13.</b> follow regular cleaning and disinfection practices at work place using appropriate techniques and materials | 1            | 2               | -             | 1          |
| <b>PC14.</b> follow hand hygiene practices at work place using appropriate techniques and materials                      | 1            | 2               | -             | 1          |
| <b>PC15.</b> report regarding the contagious illness of self or people in close contact                                  | -            | 1               | -             | -          |
| <b>PC16.</b> avoid contact with ill people and self-isolate in a similar situation                                       | -            | 1               | -             | -          |
| <i>Housekeeping and waste management</i>   | <b>7</b>     | <b>12</b>       | -             | <b>5</b>   |
| <b>PC17.</b> follow the fundamentals of 5S for housekeeping  | 2            | 3               | -             | 2          |
| <b>PC18.</b> ensure good housekeeping in order to prevent hazards and accidents  | 1            | 2               | -             | -          |
| <b>PC19.</b> store the material, tools and equipment in the correct location and in good condition                       | 1            | 2               | -             | -          |
| <b>PC20.</b> segregate waste into different categories   | 1            | 2               | -             | 1          |
| <b>PC21.</b> identify recyclable, non-recyclable and hazardous waste   | 1            | 1               | -             | 1          |
| <b>PC22.</b> dispose non-recyclable, recyclable and reusable waste appropriately at identified location                  | 1            | 2               | -             | 1          |
| <i>Material and energy conservation</i>  | <b>5</b>     | <b>9</b>        | -             | <b>2</b>   |
| <b>PC23.</b> identify ways to optimize usage of material in various tasks/activities/processes                           | 1            | 2               | -             | -          |
| <b>PC24.</b> check for spills/leakages in various tasks/activities/processes   | 1            | 2               | -             | 1          |
| <b>PC25.</b> plug spills/leakages and escalate to appropriate authority if unable to rectify                             | 1            | 2               | -             | 1          |
| <b>PC26.</b> check if the equipment/machine is functioning normally before commencing work and rectify wherever required | 1            | 2               | -             | -          |



## Qualification Pack

| Assessment Criteria for Outcomes   | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| PC27. ensure electrical equipment and appliances are properly connected and turned off when not in use | 1            | 1               | -             | -          |
| <b>NOS Total</b>   | <b>30</b>    | <b>50</b>       | <b>-</b>      | <b>20</b>  |



## Qualification Pack

### National Occupational Standards (NOS) Parameters

|                            |  |
|----------------------------|--|
| <b>NOS Code</b>            | ISC/N0008  |
| <b>NOS Name</b>            | Use basic health and safety practices at the workplace   |
| <b>Sector</b>              | Iron and Steel   |
| <b>Sub-Sector</b>          | Steel, Sponge Iron, Ferro Alloys, Re-Rollers, Refractory   |
| <b>Occupation</b>          | Mechanical Maintenance, Raw Material Handling , Product Quality Control, Refractory Maintenance, Furnace Operation, Fitter, Cold Rolling Mill Operations, Electrical Maintenance, Mechanical Maintenance |
| <b>NSQF Level</b>          | 3  |
| <b>Credits</b>             | TBD  |
| <b>Version</b>             | 2.0  |
| <b>Last Reviewed Date</b>  | 15/03/2024   |
| <b>Next Review Date</b>    | 15/03/2027   |
| <b>NSQC Clearance Date</b> | 15/03/2024   |



## Qualification Pack

### ISC/N0009: Work effectively with others

#### Description

This OS unit is about communicating with colleagues/superiors and others, either in own work group or in other work groups within organisation.

#### Scope

The scope covers the following :

- Communicate effectively with colleagues and others
- Interact with supervisor
- Follow appropriate behaviour at work place

#### Elements and Performance Criteria

##### *Communicate effectively with colleagues and others*

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

- PC1.** coordinate with colleagues to share work, as per the workload in order to achieve team goals
- PC2.** maintain clear communication with colleagues and others, wherever needed, through all means i.e. face-to-face, telephonic or written
- PC3.** adjust communication styles to reflect gender and persons with disability (PwD) sensitivity
- PC4.** respect all colleagues and co-workers
- PC5.** resolve conflicts by communicating with colleagues and other departments

##### *Interact with supervisor*

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

- PC6.** identify work requirements by receiving instructions from reporting supervisor
- PC7.** escalate problems to supervisors that cannot be handled
- PC8.** report the completed work
- PC9.** interact with the reporting supervisor about any possible hazards and safety concerns

##### *Follow appropriate behaviour at work place*

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

- PC10.** extend help to people with Disability (PwD) at workplace, if required
- PC11.** empathize with people with disability
- PC12.** adopt a gender neutral behavior
- PC13.** adopt responsible and disciplined behaviours at the workplace

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** the importance of effective communication and establishing good working relationships with colleagues and supervisor



## Qualification Pack

- KU2.** different methods of communication as per the circumstances
- KU3.** importance of teamwork in organization and individual success
- KU4.** various components of effective communication
- KU5.** barriers to effective communication
- KU6.** common reasons for interpersonal conflict
- KU7.** what constitutes disciplined behaviour for a working professional
- KU8.** gender concepts, issues & legislation
- KU9.** organisational policies and procedures related to gender equality
- KU10.** challenges faced by PWD and the ways to help them overcome the same

## Generic Skills (GS)

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

- GS1.** read instructions/guidelines/procedures
- GS2.** listen effectively and orally communicate information
- GS3.** ask for clarification and advice from the concerned person
- GS4.** maintain positive and effective relationships with colleagues
- GS5.** evaluate the possible solution(s) to the problem
- GS6.** spot and communicate potential areas of disruptions in the work process and report the same
- GS7.** complete written work with attention to detail
- GS8.** check that the work meets customer requirements



## Qualification Pack

### Assessment Criteria

| Assessment Criteria for Outcomes   | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| <i>Communicate effectively with colleagues and others</i>  | <b>13</b>    | <b>20</b>       | -             | <b>9</b>   |
| <b>PC1.</b> coordinate with colleagues to share work, as per the workload in order to achieve team goals   | 3            | 5               | -             | 2          |
| <b>PC2.</b> maintain clear communication with colleagues and others, wherever needed, through all means i.e. face-to-face, telephonic or written | 5            | 7               | -             | 3          |
| <b>PC3.</b> adjust communication styles to reflect gender and persons with disability (PwD) sensitivity  | 3            | 4               | -             | 2          |
| <b>PC4.</b> respect all colleagues and co-workers  | 1            | 2               | -             | 1          |
| <b>PC5.</b> resolve conflicts by communicating with colleagues and other departments   | 1            | 2               | -             | 1          |
| <i>Interact with supervisor</i>  | <b>8</b>     | <b>14</b>       | -             | <b>6</b>   |
| <b>PC6.</b> identify work requirements by receiving instructions from reporting supervisor   | 2            | 3               | -             | 1          |
| <b>PC7.</b> escalate problems to supervisors that cannot be handled  | 2            | 3               | -             | 2          |
| <b>PC8.</b> report the completed work  | 2            | 3               | -             | 1          |
| <b>PC9.</b> interact with the reporting supervisor about any possible hazards and safety concerns  | 2            | 5               | -             | 2          |
| <i>Follow appropriate behaviour at work place</i>  | <b>9</b>     | <b>16</b>       | -             | <b>5</b>   |
| <b>PC10.</b> extend help to people with Disability (PwD) at workplace, if required   | 2            | 4               | -             | 2          |
| <b>PC11.</b> empathize with people with disability   | 2            | 4               | -             | 1          |
| <b>PC12.</b> adopt a gender neutral behavior   | 2            | 4               | -             | 1          |
| <b>PC13.</b> adopt responsible and disciplined behaviours at the workplace   | 3            | 4               | -             | 1          |



## Qualification Pack

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|----------------------------------|--------------|-----------------|---------------|------------|
| NOS Total                        | 30           | 50              | -             | 20         |



## Qualification Pack

### National Occupational Standards (NOS) Parameters

|                            |   |
|----------------------------|---|
| <b>NOS Code</b>            | ISC/N0009   |
| <b>NOS Name</b>            | Work effectively with others  |
| <b>Sector</b>              | Iron and Steel  |
| <b>Sub-Sector</b>          | Steel, Sponge Iron, Ferro Alloys, Re-Rollers, Refractory  |
| <b>Occupation</b>          | Mechanical Maintenance, Raw Material Handling , Product Quality Control, Refractory Maintenance, Furnace Operation, Fitter, Operations, Coke Making, Mechanical Maintenance |
| <b>NSQF Level</b>          | 3   |
| <b>Credits</b>             | TBD   |
| <b>Version</b>             | 2.0   |
| <b>Last Reviewed Date</b>  | 15/03/2024  |
| <b>Next Review Date</b>    | 15/03/2027  |
| <b>NSQF Clearance Date</b> | 15/03/2024  |



## Qualification Pack

### ISC/N0926: Prepare for levelling, alignment and balancing work

#### Description

This unit is about understanding the requirements of the job of fitter - levelling, balancing & alignment in accordance with the checklist and identify the tools and tackles that would be needed to carry out the job.

#### Scope

The scope covers the following :

- Identify work requirements
- Prepare for levelling, alignment and balancing work

#### 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 checklist, engineering drawings, work order and SOPs etc.
- PC2.** interpret information from sections, views and scale of measurement used in drawing of the equipment
- PC3.** identify correct limits, tolerance and fits of rotating machine by interpreting the drawings properly
- PC4.** identify the tools, measuring instruments, equipment and spares required for the job
- PC5.** select and arrange the right tools, measuring instruments, equipment and spares as per the SOP and job requirements
- PC6.** report to stores / supervisor in case of non-availability of tools, tackles and spares

##### *Prepare for levelling, alignment and balancing work*

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

- PC7.** use appropriate Personal Protective Equipment (PPE) for safe working in workshop
- PC8.** plan sequence of activities need to perform to assemble the machine
- PC9.** check the tools, measuring instruments and equipment for any defects and that they are as per the required quality standards
- PC10.** calibrate the tools and measuring instruments before use
- PC11.** prepare tools, tackles, spares, lifting equipment etc. as per SOP/WI
- PC12.** report damaged / defective components of equipment and tools as per the escalation matrix

#### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** relevant standards and procedures followed in the company
- KU2.** limits, fits and tolerances of the rotating equipment



## Qualification Pack

- KU3.** how to read engineering drawing and sketches of the equipment
- KU4.** Standard Operating Procedures (SOP) recommended by OEM for using tools, tackles, equipment (spanners, steel scale, torque wrench, laser alignment equipment etc.) and measuring instruments (Vernier, Micro meter, dial gauge, filler gauge, water level, spirit level etc.)
- KU5.** normal running characteristics of rotating equipment e.g. blower fan, motor, pump and gear box etc
- KU6.** levelling, alignment, static and dynamic balancing of rotating equipment
- KU7.** implications of not adhering to sequence of activities and operations

## Generic Skills (GS)

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

- GS1.** read 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 supervisor/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



## Qualification Pack

### Assessment Criteria

| Assessment Criteria for Outcomes   | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| <i>Identify work requirements</i>  | <b>16</b>    | <b>25</b>       | -             | <b>11</b>  |
| <b>PC1.</b> identify the work to be done by interpreting the checklist, engineering drawings, work order and SOPs etc.                   | 1            | 3               | -             | 1          |
| <b>PC2.</b> interpret information from sections, views and scale of measurement used in drawing of the equipment                         | 3            | 5               | -             | 3          |
| <b>PC3.</b> identify correct limits, tolerance and fits of rotating machine by interpreting the drawings properly                        | 3            | 5               | -             | 2          |
| <b>PC4.</b> identify the tools, measuring instruments, equipment and spares required for the job   | 5            | 5               | -             | 3          |
| <b>PC5.</b> select and arrange the right tools, measuring instruments, equipment and spares as per the SOP and job requirements          | 3            | 5               | -             | 2          |
| <b>PC6.</b> report to stores / supervisor in case of non-availability of tools, tackles and spares                                       | 1            | 2               | -             | -          |
| <i>Prepare for levelling, alignment and balancing work</i>   | <b>14</b>    | <b>25</b>       | -             | <b>9</b>   |
| <b>PC7.</b> use appropriate Personal Protective Equipment (PPE) for safe working in workshop   | 1            | 2               | -             | 1          |
| <b>PC8.</b> plan sequence of activities need to perform to assemble the machine  | 2            | 4               | -             | 2          |
| <b>PC9.</b> check the tools, measuring instruments and equipment for any defects and that they are as per the required quality standards | 4            | 7               | -             | 2          |
| <b>PC10.</b> calibrate the tools and measuring instruments before use  | 3            | 5               | -             | 1          |
| <b>PC11.</b> prepare tools, tackles, spares, lifting equipment etc. as per SOP/WI  | 3            | 5               | -             | 2          |
| <b>PC12.</b> report damaged / defective components of equipment and tools as per the escalation matrix                                   | 1            | 2               | -             | 1          |



## Qualification Pack

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|----------------------------------|--------------|-----------------|---------------|------------|
| NOS Total                        | 30           | 50              | -             | 20         |



## Qualification Pack

### National Occupational Standards (NOS) Parameters

|                            |  |
|----------------------------|--|
| <b>NOS Code</b>            | ISC/N0926  |
| <b>NOS Name</b>            | Prepare for levelling, alignment and balancing work      |
| <b>Sector</b>              | Iron and Steel   |
| <b>Sub-Sector</b>          | Steel, Sponge Iron, Ferro Alloys, Re-Rollers, Refractory |
| <b>Occupation</b>          | Mechanical Maintenance                                   |
| <b>NSQF Level</b>          | 3  |
| <b>Credits</b>             | TBD  |
| <b>Version</b>             | 2.0  |
| <b>Last Reviewed Date</b>  | 01/04/2025   |
| <b>Next Review Date</b>    | 01/04/2028   |
| <b>NSQF Clearance Date</b> | 01/04/2025   |



## Qualification Pack

# ISC/N0927: Carryout the operation of levelling, balancing and alignment

## Description

This NOS is about carrying out the operations of levelling, balancing and alignment for rectifying the identified problem.

## Scope

The scope covers the following :

- Conduct routine maintenance of rotating equipment
- Monitor and record vibration and temperature in the equipment

## Elements and Performance Criteria

### *Conduct routine maintenance of rotating equipment*

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

- PC1.** follow the checklist and ensure all assembly check points of equipment are inspected for defects and all the observations are noted properly
- PC2.** dismantle the equipment as per the SOP/WI
- PC3.** check the equipment for any levelling, alignment and balancing problems and rectify them as per SOP/WI
- PC4.** carry out levelling of the equipment through dial gauge, spirit level, water level etc. as per SOP/WI
- PC5.** carry out the alignment of equipment manually (by dial gauge) or by machine (laser driven shaft alignment) as per SOP/WI
- PC6.** check static balancing by identification of heavy point (rest at the bottom) upon slow rotation of the equipment with low friction bearings
- PC7.** carry out static and dynamic balancing process by using balancing machine as per SOP/WI
- PC8.** assemble back the equipment as per the SOP/WI
- PC9.** set and adjust the linkages, tensions and clearances of assembled components to specified specifications by using fixed gauges and hand tools
- PC10.** fasten the mechanical components/ subassemblies together by using specified screws, bolts, and collars

### *Monitor and record vibration and temperature in the equipment*

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

- PC11.** use appropriate vibration and temperature measuring instruments to monitor the vibration and temperature in the equipment
- PC12.** read the gauges and record the observations at prescribed time intervals
- PC13.** analyse the readings to identify any deviations and correct them if not within the desired levels
- PC14.** report any deviations to supervisor so as to take necessary actions to rectify them

## Knowledge and Understanding (KU)



## Qualification Pack

The individual on the job needs to know and understand:

- KU1.** relevant standards and procedures followed in the company
- KU2.** quality and damage checks to be done and importance of the same
- KU3.** records to be maintained and implications of non-maintenance of the same
- KU4.** normal running characteristics of rotating equipment
- KU5.** common problems in a rotating equipment and their causes and remedies
- KU6.** dismantling and assembling procedure of equipment
- KU7.** Standard Operating Procedures (SOP) recommended by OEM for using tools, tackles, equipment (spanners, steel scale, torque wrench, laser alignment equipment etc.) and measuring instruments (Vernier, Micro meter, dial gauge, filler gauge, water level, spirit level etc.)
- KU8.** process of levelling, alignment, static and dynamic balancing of rotating equipment
- KU9.** different types of balancing like vector method, stroboscope light method (dynamic balancing) etc.
- KU10.** how to check levelling, alignment and balancing of a rotating equipment
- KU11.** desirable limits of temperature and vibrations in the equipment
- KU12.** use of instruments i.e. thermometer and vibration measuring meter for measurement of temperature and vibration
- KU13.** documentation required regarding repair, maintenance and service performed

### Generic Skills (GS)

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

- GS1.** read signals, 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 supervisor/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



## Qualification Pack

### Assessment Criteria

| Assessment Criteria for Outcomes  | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| <i>Conduct routine maintenance of rotating equipment</i>  | <b>25</b>    | <b>40</b>       | -             | <b>16</b>  |
| <b>PC1.</b> follow the checklist and ensure all assembly check points of equipment are inspected for defects and all the observations are noted properly  | 3            | 3               | -             | 2          |
| <b>PC2.</b> dismantle the equipment as per the SOP/WI   | 2            | 3               | -             | 1          |
| <b>PC3.</b> check the equipment for any levelling, alignment and balancing problems and rectify them as per SOP/WI  | 2            | 5               | -             | 2          |
| <b>PC4.</b> carry out levelling of the equipment through dial gauge, spirit level, water level etc. as per SOP/WI   | 3            | 5               | -             | 2          |
| <b>PC5.</b> carry out the alignment of equipment manually (by dial gauge) or by machine (laser driven shaft alignment) as per SOP/WI                      | 3            | 5               | -             | 2          |
| <b>PC6.</b> check static balancing by identification of heavy point (rest at the bottom) upon slow rotation of the equipment with low friction bearings   | 3            | 5               | -             | 2          |
| <b>PC7.</b> carry out static and dynamic balancing process by using balancing machine as per SOP/WI   | 3            | 5               | -             | 2          |
| <b>PC8.</b> assemble back the equipment as per the SOP/WI   | 2            | 3               | -             | 1          |
| <b>PC9.</b> set and adjust the linkages, tensions and clearances of assembled components to specified specifications by using fixed gauges and hand tools | 3            | 4               | -             | 1          |
| <b>PC10.</b> fasten the mechanical components/ subassemblies together by using specified screws, bolts, and collars                                       | 1            | 2               | -             | 1          |
| <i>Monitor and record vibration and temperature in the equipment</i>  | <b>5</b>     | <b>10</b>       | -             | <b>4</b>   |



## Qualification Pack

| Assessment Criteria for Outcomes   | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| <b>PC11.</b> use appropriate vibration and temperature measuring instruments to monitor the vibration and temperature in the equipment | 2            | 4               | -             | 2          |
| <b>PC12.</b> read the gauges and record the observations at prescribed time intervals  | 1            | 2               | -             | 1          |
| <b>PC13.</b> analyse the readings to identify any deviations and correct them if not within the desired levels                         | 1            | 2               | -             | 1          |
| <b>PC14.</b> report any deviations to supervisor so as to take necessary actions to rectify them                                       | 1            | 2               | -             | -          |
| <b>NOS Total</b>   | <b>30</b>    | <b>50</b>       | <b>-</b>      | <b>20</b>  |



## Qualification Pack

### National Occupational Standards (NOS) Parameters

|                            |  |
|----------------------------|--|
| <b>NOS Code</b>            | ISC/N0927  |
| <b>NOS Name</b>            | Carryout the operation of levelling, balancing and alignment |
| <b>Sector</b>              | Iron and Steel   |
| <b>Sub-Sector</b>          | Steel, Sponge Iron, Ferro Alloys, Re-Rollers, Refractory     |
| <b>Occupation</b>          | Mechanical Maintenance                                       |
| <b>NSQF Level</b>          | 3  |
| <b>Credits</b>             | TBD  |
| <b>Version</b>             | 2.0  |
| <b>Last Reviewed Date</b>  | 01/04/2025   |
| <b>Next Review Date</b>    | 01/04/2028   |
| <b>NSQF Clearance Date</b> | 01/04/2025   |



## Qualification Pack

### ISC/N0928: Perform post-repairing activities

#### Description

This NOS is about performing post-maintenance activities such as quality check, cleaning and storing.

#### Scope

The scope covers the following :

- Conduct tests to ensure fitness of equipment
- Perform post-testing activities

#### Elements and Performance Criteria

##### *Conduct tests to ensure fitness of equipment*

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

- PC1.** check the machine/electrical panels component as per the control plan, WI for proper working
- PC2.** check vibrations in the equipment to ensure they are within desired limits
- PC3.** conduct trials of the equipment to ensure that specified parameters are attained with no abnormalities
- PC4.** record the trial results as per the organisation guidelines
- PC5.** ensure that all maintenance points are adequately considered and report the superiors about maintenance activity done on the bearing

##### *Perform post-testing activities*

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

- PC6.** add lubricants and coolants into moving parts of machine as per SOP/WI
- PC7.** clean and store all the tools, machine and equipment after completion of work
- PC8.** check the machine operations for any malfunctions/defects in the component and inform the supervisor/maintenance team for correction
- PC9.** dispose scrap or waste material into the disposal area in accordance with the company's policies and environmental regulations
- PC10.** 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.** quality checks to be done and importance of the same
- KU3.** how to conduct trial of the equipment
- KU4.** post-maintenance processes like inspection, cleaning, storage etc.



## Qualification Pack

**KU5.** methods of storage and cleaning tools and equipment

**KU6.** documentation required regarding repair, maintenance and service performed

### Generic Skills (GS)

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

**GS1.** read 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 supervisor/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



## Qualification Pack

### Assessment Criteria

| Assessment Criteria for Outcomes   | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| <i>Conduct tests to ensure fitness of equipment</i>  | <b>17</b>    | <b>28</b>       | -             | <b>11</b>  |
| <b>PC1.</b> check the machine/electrical panels component as per the control plan, WI for proper working   | 4            | 6               | -             | 3          |
| <b>PC2.</b> check vibrations in the equipment to ensure they are within desired limits   | 4            | 6               | -             | 3          |
| <b>PC3.</b> conduct trials of the equipment to ensure that specified parameters are attained with no abnormalities                               | 3            | 6               | -             | 2          |
| <b>PC4.</b> record the trial results as per the organisation guidelines  | 4            | 6               | -             | 2          |
| <b>PC5.</b> ensure that all maintenance points are adequately considered and report the superiors about maintenance activity done on the bearing | 2            | 4               | -             | 1          |
| <i>Perform post-testing activities</i>   | <b>13</b>    | <b>22</b>       | -             | <b>9</b>   |
| <b>PC6.</b> add lubricants and coolants into moving parts of machine as per SOP/WI   | 3            | 5               | -             | 3          |
| <b>PC7.</b> clean and store all the tools, machine and equipment after completion of work  | 3            | 5               | -             | 2          |
| <b>PC8.</b> check the machine operations for any malfunctions/defects in the component and inform the supervisor/maintenance team for correction | 3            | 5               | -             | 2          |
| <b>PC9.</b> dispose scrap or waste material into the disposal area in accordance with the company's policies and environmental regulations       | 2            | 4               | -             | 1          |
| <b>PC10.</b> report to the supervisor about any problems faced or anticipated during the complete process  | 2            | 3               | -             | 1          |
| <b>NOS Total</b>   | <b>30</b>    | <b>50</b>       | -             | <b>20</b>  |



## Qualification Pack

### National Occupational Standards (NOS) Parameters

|                            |   |
|----------------------------|---|
| <b>NOS Code</b>            | ISC/N0928   |
| <b>NOS Name</b>            | Perform post-repairing activities                                     |
| <b>Sector</b>              | Iron and Steel  |
| <b>Sub-Sector</b>          | Steel, Sponge Iron, Ferro Alloys, Re-Rollers, Refractory, Iron Making |
| <b>Occupation</b>          | Mechanical Maintenance  |
| <b>NSQF Level</b>          | 3   |
| <b>Credits</b>             | TBD   |
| <b>Version</b>             | 2.0   |
| <b>Last Reviewed Date</b>  | 01/04/2025  |
| <b>Next Review Date</b>    | 01/04/2028  |
| <b>NSQF Clearance Date</b> | 01/04/2025  |



## Qualification Pack

### 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



## Qualification Pack

### *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



## Qualification Pack

- 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



## Qualification Pack

### Assessment Criteria

| Assessment Criteria for Outcomes   | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|--------------|-----------------|---------------|------------|
| <i>Introduction to Employability Skills</i>  | <b>1</b>     | <b>1</b>        | -             | -          |
| <b>PC1.</b> understand the significance of employability skills in meeting the job requirements  | -            | -               | -             | -          |
| <i>Constitutional values - Citizenship</i>   | <b>1</b>     | <b>1</b>        | -             | -          |
| <b>PC2.</b> identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices   | -            | -               | -             | -          |
| <i>Becoming a Professional in the 21st Century</i>   | <b>1</b>     | <b>3</b>        | -             | -          |
| <b>PC3.</b> 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>  | <b>2</b>     | <b>3</b>        | -             | -          |
| <b>PC4.</b> speak with others using some basic English phrases or sentences  | -            | -               | -             | -          |
| <i>Communication Skills</i>  | <b>1</b>     | <b>1</b>        | -             | -          |
| <b>PC5.</b> follow good manners while communicating with others  | -            | -               | -             | -          |
| <b>PC6.</b> work with others in a team   | -            | -               | -             | -          |
| <i>Diversity &amp; Inclusion</i>   | <b>1</b>     | <b>1</b>        | -             | -          |
| <b>PC7.</b> communicate and behave appropriately with all genders and PwD  | -            | -               | -             | -          |
| <b>PC8.</b> report any issues related to sexual harassment   | -            | -               | -             | -          |
| <i>Financial and Legal Literacy</i>  | <b>3</b>     | <b>4</b>        | -             | -          |
| <b>PC9.</b> use various financial products and services safely and securely  | -            | -               | -             | -          |



## Qualification Pack

| Assessment Criteria for Outcomes  | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|--------------|-----------------|---------------|------------|
| <b>PC10.</b> calculate income, expenses, savings etc.   | -            | -               | -             | -          |
| <b>PC11.</b> approach the concerned authorities for any exploitation as per legal rights and laws | -            | -               | -             | -          |
| <i>Essential Digital Skills</i>   | <b>4</b>     | <b>6</b>        | -             | -          |
| <b>PC12.</b> operate digital devices and use its features and applications securely and safely    | -            | -               | -             | -          |
| <b>PC13.</b> use internet and social media platforms securely and safely                          | -            | -               | -             | -          |
| <i>Entrepreneurship</i>   | <b>3</b>     | <b>5</b>        | -             | -          |
| <b>PC14.</b> identify and assess opportunities for potential business                             | -            | -               | -             | -          |
| <b>PC15.</b> identify sources for arranging money and associated financial and legal challenges   | -            | -               | -             | -          |
| <i>Customer Service</i>   | <b>2</b>     | <b>2</b>        | -             | -          |
| <b>PC16.</b> identify different types of customers  | -            | -               | -             | -          |
| <b>PC17.</b> identify customer needs and address them appropriately                               | -            | -               | -             | -          |
| <b>PC18.</b> follow appropriate hygiene and grooming standards                                    | -            | -               | -             | -          |
| <i>Getting ready for apprenticeship &amp; Jobs</i>  | <b>1</b>     | <b>3</b>        | -             | -          |
| <b>PC19.</b> create a basic biodata   | -            | -               | -             | -          |
| <b>PC20.</b> search for suitable jobs and apply   | -            | -               | -             | -          |
| <b>PC21.</b> identify and register apprenticeship opportunities as per requirement                | -            | -               | -             | -          |
| <b>NOS Total</b>  | <b>20</b>    | <b>30</b>       | -             | -          |



## Qualification Pack

### National Occupational Standards (NOS) Parameters

|                            |                                 |
|----------------------------|---------------------------------|
| <b>NOS Code</b>            | DGT/VSQ/N0101                   |
| <b>NOS Name</b>            | Employability Skills (30 Hours) |
| <b>Sector</b>              | Cross Sectoral                  |
| <b>Sub-Sector</b>          | Professional Skills             |
| <b>Occupation</b>          | Employability                   |
| <b>NSQF Level</b>          | 2                               |
| <b>Credits</b>             | 1                               |
| <b>Version</b>             | 1.0                             |
| <b>Last Reviewed Date</b>  | 08/05/2025                      |
| <b>Next Review Date</b>    | 30/04/2028                      |
| <b>NSQC Clearance Date</b> | 08/05/2025                      |

## 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 center (as per assessment criteria below).
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center 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.



## 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  |
|--|--------------|-----------------|---------------|------------|-------------|------------|
| ISC/N0008.Use basic health and safety practices at the workplace       | 30           | 50              | 0             | 20         | 100         | 5          |
| ISC/N0009.Work effectively with others                                 | 30           | 50              | 0             | 20         | 100         | 5          |
| ISC/N0926.Prepare for levelling, alignment and balancing work          | 30           | 50              | -             | 20         | 100         | 25         |
| ISC/N0927.Carryout the operation of levelling, balancing and alignment | 30           | 50              | -             | 20         | 100         | 25         |
| ISC/N0928.Perform post-repairing activities                            | 30           | 50              | -             | 20         | 100         | 30         |
| DGT/VSQ/N0101.Employability Skills (30 Hours)                          | 20           | 30              | 0             | 0          | 50          | 10         |
| <b>Total</b>   | <b>170</b>   | <b>280</b>      | <b>-</b>      | <b>100</b> | <b>550</b>  | <b>100</b> |



## Qualification Pack

### Acronyms

|             |   |
|-------------|---|
| <b>NOS</b>  | National Occupational Standard(s)               |
| <b>NSQF</b> | National Skills Qualifications Framework        |
| <b>QP</b>   | Qualifications Pack                             |
| <b>TVET</b> | Technical and Vocational Education and Training |



## Qualification Pack

### Glossary

|  |  |
|--|--|
| <b>Sector</b>                                | 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.  |
| <b>Sub-sector</b>                            | Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.   |
| <b>Occupation</b>                            | Occupation is a set of job roles, which perform similar/ related set of functions in an industry.  |
| <b>Job role</b>                              | Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.  |
| <b>Occupational Standards (OS)</b>           | 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. |
| <b>Performance Criteria (PC)</b>             | Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.  |
| <b>National Occupational Standards (NOS)</b> | NOS are occupational standards which apply uniquely in the Indian context.   |
| <b>Qualifications Pack (QP)</b>              | 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.   |
| <b>Unit Code</b>                             | Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'  |
| <b>Unit Title</b>                            | Unit title gives a clear overall statement about what the incumbent should be able to do.  |
| <b>Description</b>                           | 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.   |
| <b>Scope</b>                                 | 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

|   |  |
|---|--|
| <b>Knowledge and Understanding (KU)</b> | 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.   |
| <b>Organisational Context</b>           | 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.   |
| <b>Technical Knowledge</b>              | Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.   |
| <b>Core Skills/ Generic Skills (GS)</b> | 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. |
| <b>Electives</b>                        | 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.  |
| <b>Options</b>                          | 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.  |