

## Qualification Pack



# Drone Manufacturing and Assembly Technician

QP Code: ELE/Q7307

Version: 3.0

NSQF Level: 4

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## Qualification Pack

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### ELE/Q7307: Drone Manufacturing and Assembly Technician

#### Brief Job Description

A Drone Manufacturing and Assembly Technician is responsible for assembling, testing, and maintaining drones as per industry standards. The role covers interpreting assembly drawings, integrating components like motors, ESCs, flight controllers, and sensors, and ensuring proper calibration and programming for safe and efficient flight. Technicians also perform troubleshooting, quality checks, and upgrades while following safety and ESD practices. This role supports applications of drones across sectors such as agriculture, logistics, surveillance, and defence.

#### Personal Attributes

The individual must have attention to detail, logical thinking, and ability to execute the repair and maintenance activity as per client's requirement. The individual should be good at following instructions and work collaboratively with diverse teams. S/he must stay abreast with technology changes, and demonstrate strong technical expertise. Also, s/he must exhibit good customer interaction - courtesy, problem-solving, reliability, good decision-making skills, etc.

#### Applicable National Occupational Standards (NOS)

##### Compulsory NOS:

1. [ELE/N7311: Understanding Drone Fundamentals, Types, Applications, and Assembly](#)
2. [ELE/N7312: Testing, Calibration, Programming, and Quality Assurance of Drones](#)
3. [ELE/N7313: Troubleshooting, Repair, Upgrades, and Continuous Improvement of Drones](#)
4. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

#### Qualification Pack (QP) Parameters

<b>Sector</b>	Electronics
<b>Sub-Sector</b>	E-Mobility and Battery
<b>Occupation</b>	Assembly-EM&B
<b>Country</b>	India
<b>NSQF Level</b>	4
<b>Credits</b>	17

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<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/8212.0400
<b>Minimum Educational Qualification &amp; Experience</b>	12th grade Pass (12th grade or equivalent) with NA of experience OR 10th grade pass (10th grade or equivalent) with 3 Years of experience Relevant Experience in Electronics Domain. OR Previous relevant Qualification of NSQF Level (Certificate-NSQF (Level-3 in relevant domain)) with 3 Years of experience Relevant Experience in Electronics Domain.
<b>Minimum Level of Education for Training in School</b>	10th Class
<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	16 Years
<b>Last Reviewed On</b>	NA
<b>Next Review Date</b>	27/10/2028
<b>NSQC Approval Date</b>	16/12/2025
<b>Version</b>	3.0
<b>Reference code on NQR</b>	QG-03-EH-04687-2025-V2-ESSC
<b>NQR Version</b>	2

### Remarks:

NA
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## Qualification Pack

# ELE/N7311: Understanding Drone Fundamentals, Types, Applications, and Assembly

## Description

This NOS covers the knowledge of basic drone principles, different types of drones, their applications across sectors, and the fundamental components and processes involved in drone assembly and integration.

## Scope

The scope covers the following :

- Fundamentals of Drones
- Drone Components and Assembly Design
- Assembly Procedure and Documentation

## Elements and Performance Criteria

### *Fundamentals of Drones*

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

- PC1.** Identify and describe drone types (fixed-wing, rotary-wing, hybrid) and categories (nano, micro, small, medium, large).
- PC2.** Explain applications of drones across sectors (agriculture, defence, logistics, surveillance, mapping, cinematography, disaster management).
- PC3.** Relate application demands (payload, sensors, range, endurance, flight conditions) with changes in design and manufacturing requirements.

### *Drone Components and Assembly Design*

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

- PC4.** Identify and describe the function of major drone components (frame, motors, ESCs, flight controllers, GPS, sensors, batteries, propellers, antennas).
- PC5.** Interpret CAD drawings, exploded views, wiring diagrams, and technical datasheets for different drone categories.
- PC6.** Prepare Bills of Materials (BOM) and part lists using suitable design or ERP software.
- PC7.** Identify tools, jigs, and fixtures required for precision assembly and fastening of drone components.
- PC8.** Verify incoming components against the BOM and ensure compliance with design tolerances and quality standards.

### *Assembly Procedure and Documentation*

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

- PC9.** Plan the assembly sequence as per the drone type and complexity.
- PC10.** Assemble the drone frame and structural components following torque, alignment, and balance specifications.
- PC11.** Mount motors, ESCs, and propellers in the correct configuration (X, +, or H orientation) as per the design.

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- PC12.** Connect wiring harnesses, power distribution boards, and connectors using standard soldering and crimping techniques.
- PC13.** Install and secure the flight controller, sensors, and GPS units ensuring vibration isolation where required.
- PC14.** Integrate communication modules (RF, telemetry, GPS receivers) as per design specifications.
- PC15.** Assemble and connect the battery unit with power safety mechanisms (fuses, BMS, connectors).
- PC16.** Inspect all assemblies for loose fittings, short circuits, polarity errors, and misalignments.
- PC17.** Document assembly steps, component traceability, and deviations from drawings using organizational templates.
- PC18.** Perform a dry-run pre-power check to confirm continuity, polarity, and mechanical integrity before powering the drone.

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** Knowledge of drone types categories and sector wise applications
- KU2.** Understanding of design requirements based on payload range endurance and operating conditions
- KU3.** Knowledge of major drone components and their functions
- KU4.** Understanding of assembly procedures quality standards and documentation requirements
- KU5.** Knowledge of electrical mechanical safety and pre power inspection practices

## Generic Skills (GS)

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

- GS1.** Ability to interpret technical drawings wiring diagrams and datasheets
- GS2.** Ability to plan and execute drone assembly as per specifications
- GS3.** Ability to use tools jigs and fixtures for precise assembly
- GS4.** Ability to inspect assemblies identify faults and ensure compliance
- GS5.** Ability to document assembly activities and follow standard procedures

## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Fundamentals of Drones</i>	<b>6</b>	<b>9</b>	-	-
<b>PC1.</b> Identify and describe drone types (fixed-wing, rotary-wing, hybrid) and categories (nano, micro, small, medium, large).	-	-	-	-
<b>PC2.</b> Explain applications of drones across sectors (agriculture, defence, logistics, surveillance, mapping, cinematography, disaster management).	-	-	-	-
<b>PC3.</b> Relate application demands (payload, sensors, range, endurance, flight conditions) with changes in design and manufacturing requirements.	-	-	-	-
<i>Drone Components and Assembly Design</i>	<b>12</b>	<b>17</b>	-	-
<b>PC4.</b> Identify and describe the function of major drone components (frame, motors, ESCs, flight controllers, GPS, sensors, batteries, propellers, antennas).	-	-	-	-
<b>PC5.</b> Interpret CAD drawings, exploded views, wiring diagrams, and technical datasheets for different drone categories.	-	-	-	-
<b>PC6.</b> Prepare Bills of Materials (BOM) and part lists using suitable design or ERP software.	-	-	-	-
<b>PC7.</b> Identify tools, jigs, and fixtures required for precision assembly and fastening of drone components.	-	-	-	-
<b>PC8.</b> Verify incoming components against the BOM and ensure compliance with design tolerances and quality standards.	-	-	-	-
<i>Assembly Procedure and Documentation</i>	<b>22</b>	<b>34</b>	-	-
<b>PC9.</b> Plan the assembly sequence as per the drone type and complexity.	-	-	-	-
<b>PC10.</b> Assemble the drone frame and structural components following torque, alignment, and balance specifications.	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC11.</b> Mount motors, ESCs, and propellers in the correct configuration (X, +, or H orientation) as per the design.	-	-	-	-
<b>PC12.</b> Connect wiring harnesses, power distribution boards, and connectors using standard soldering and crimping techniques.	-	-	-	-
<b>PC13.</b> Install and secure the flight controller, sensors, and GPS units ensuring vibration isolation where required.	-	-	-	-
<b>PC14.</b> Integrate communication modules (RF, telemetry, GPS receivers) as per design specifications.	-	-	-	-
<b>PC15.</b> Assemble and connect the battery unit with power safety mechanisms (fuses, BMS, connectors).	-	-	-	-
<b>PC16.</b> Inspect all assemblies for loose fittings, short circuits, polarity errors, and misalignments.	-	-	-	-
<b>PC17.</b> Document assembly steps, component traceability, and deviations from drawings using organizational templates.	-	-	-	-
<b>PC18.</b> Perform a dry-run pre-power check to confirm continuity, polarity, and mechanical integrity before powering the drone.	-	-	-	-
<b>NOS Total</b>	<b>40</b>	<b>60</b>	-	-



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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	ELE/N7311
<b>NOS Name</b>	Understanding Drone Fundamentals, Types, Applications, and Assembly
<b>Sector</b>	Electronics
<b>Sub-Sector</b>	
<b>Occupation</b>	Assembly-I&A
<b>NSQF Level</b>	4
<b>Credits</b>	4.5
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	16/12/2025
<b>Next Review Date</b>	27/10/2028
<b>NSQC Clearance Date</b>	16/12/2025

## Qualification Pack

# ELE/N7312: Testing, Calibration, Programming, and Quality Assurance of Drones

## Description

This NOS covers the skills required to test and calibrate drone systems, program flight controllers, verify performance parameters, and ensure compliance with quality and safety standards.

## Scope

The scope covers the following :

- Pre-Flight Testing and Calibration
- Programming and Functional Validation
- Flight Testing and Quality Assurance

## Elements and Performance Criteria

### *Pre-Flight Testing and Calibration*

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

- PC1.** Conduct pre-flight functional checks and visual inspections for drones of different categories.
- PC2.** Verify battery health, charging cycles, and current ratings using test equipment
- PC3.** Test electronic subsystems (ESCs, motors, GPS modules, sensors) using multimeters, oscilloscopes, and specialized diagnostic tools.
- PC4.** Perform continuity checks and insulation resistance testing of wiring harnesses
- PC5.** Calibrate sensors (IMU, accelerometer, gyroscope, barometer, magnetometer) according to category requirements.
- PC6.** Calibrate GPS units and confirm lock-on performance under different environmental conditions.

### *Programming and Functional Validation*

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

- PC7.** Configure flight controllers with firmware updates, PID tuning, and category-specific parameters (payload balance, hovering stability, altitude limits).
- PC8.** Program communication protocols (RC transmitters, telemetry systems, failsafe modes) for safe flight.
- PC9.** Simulate drone flight dynamics (lift, drag, thrust, pitch, roll, yaw, stability) using software simulators before live testing.
- PC10.** Adjust thrust-to-weight ratio configurations for different payload conditions
- PC11.** Validate redundancy mechanisms (dual GPS, dual IMU, return-to-home systems) in programming logic.

### *Flight Testing and Quality Assurance*

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

- PC12.** Conduct controlled live flight tests including take-off, hovering, forward flight, and soft landing.

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- PC13.** Assess drone performance against design requirements (flight time, payload endurance, stability).
- PC14.** Record real-time telemetry and flight data for performance analysis.
- PC15.** Compare flight test results with design specifications and identify discrepancies.
- PC16.** Document test results, calibration reports, and corrective actions in QA-approved formats.
- PC17.** Use QA/PLM software tools to update product history and compliance logs.
- PC18.** Approve the drone for release only after all performance and safety requirements are successfully validated.

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** Knowledge of pre flight inspection procedures and functional testing requirements
- KU2.** Understanding of battery health evaluation and electrical testing methods
- KU3.** Knowledge of sensor calibration techniques and flight controller configuration
- KU4.** Understanding of flight dynamics performance parameters and quality standards
- KU5.** Knowledge of documentation QA processes and compliance requirements

## Generic Skills (GS)

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

- GS1.** Ability to conduct inspections testing and calibration systematically
- GS2.** Ability to configure program and validate flight controller settings
- GS3.** Ability to analyze flight data and identify performance deviations
- GS4.** Ability to operate testing instruments and simulation software effectively
- GS5.** Ability to document test results and follow quality approval procedures

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### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Pre-Flight Testing and Calibration</i>	<b>14</b>	<b>20</b>	-	-
<b>PC1.</b> Conduct pre-flight functional checks and visual inspections for drones of different categories.	-	-	-	-
<b>PC2.</b> Verify battery health, charging cycles, and current ratings using test equipment	-	-	-	-
<b>PC3.</b> Test electronic subsystems (ESCs, motors, GPS modules, sensors) using multimeters, oscilloscopes, and specialized diagnostic tools.	-	-	-	-
<b>PC4.</b> Perform continuity checks and insulation resistance testing of wiring harnesses	-	-	-	-
<b>PC5.</b> Calibrate sensors (IMU, accelerometer, gyroscope, barometer, magnetometer) according to category requirements.	-	-	-	-
<b>PC6.</b> Calibrate GPS units and confirm lock-on performance under different environmental conditions.	-	-	-	-
<i>Programming and Functional Validation</i>	<b>12</b>	<b>17</b>	-	-
<b>PC7.</b> Configure flight controllers with firmware updates, PID tuning, and category-specific parameters (payload balance, hovering stability, altitude limits).	-	-	-	-
<b>PC8.</b> Program communication protocols (RC transmitters, telemetry systems, failsafe modes) for safe flight.	-	-	-	-
<b>PC9.</b> Simulate drone flight dynamics (lift, drag, thrust, pitch, roll, yaw, stability) using software simulators before live testing.	-	-	-	-
<b>PC10.</b> Adjust thrust-to-weight ratio configurations for different payload conditions	-	-	-	-
<b>PC11.</b> Validate redundancy mechanisms (dual GPS, dual IMU, return-to-home systems) in programming logic.	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Flight Testing and Quality Assurance</i>	14	23	-	-
<b>PC12.</b> Conduct controlled live flight tests including take-off, hovering, forward flight, and soft landing.	-	-	-	-
<b>PC13.</b> Assess drone performance against design requirements (flight time, payload endurance, stability).	-	-	-	-
<b>PC14.</b> Record real-time telemetry and flight data for performance analysis.	-	-	-	-
<b>PC15.</b> Compare flight test results with design specifications and identify discrepancies.	-	-	-	-
<b>PC16.</b> Document test results, calibration reports, and corrective actions in QA-approved formats.	-	-	-	-
<b>PC17.</b> Use QA/PLM software tools to update product history and compliance logs.	-	-	-	-
<b>PC18.</b> Approve the drone for release only after all performance and safety requirements are successfully validated.	-	-	-	-
<b>NOS Total</b>	<b>40</b>	<b>60</b>	-	-

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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	ELE/N7312
<b>NOS Name</b>	Testing, Calibration, Programming, and Quality Assurance of Drones
<b>Sector</b>	Electronics
<b>Sub-Sector</b>	
<b>Occupation</b>	Assembly-I&A
<b>NSQF Level</b>	4
<b>Credits</b>	6.5
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	16/12/2025
<b>Next Review Date</b>	27/10/2028
<b>NSQC Clearance Date</b>	16/12/2025

## Qualification Pack

# ELE/N7313: Troubleshooting, Repair, Upgrades, and Continuous Improvement of Drones

## Description

This NOS defines the capability to diagnose faults, carry out repairs, perform system upgrades, and implement continuous improvement practices to enhance drone performance, reliability, and safety.

## Scope

The scope covers the following :

- Troubleshooting and Repair
- Upgrades and Design Feedback
- Documentation and Innovation
- Safety, Work Ethics, and Compliance

## Elements and Performance Criteria

### *Troubleshooting and Repair*

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

- PC1.** Diagnose technical issues in drones using systematic troubleshooting methods and diagnostic software.
- PC2.** Repair or replace faulty components such as motors, ESCs, sensors, GPS modules, wiring, or batteries.
- PC3.** Validate repair work through integrated functional and flight-readiness testing.

### *Upgrades and Design Feedback*

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

- PC4.** Upgrade drone capacity (payload, endurance, flight range) through hardware modifications or optimized programming.
- PC5.** Implement software and firmware upgrades to enhance drone category performance.
- PC6.** Review feedback on recurring failures to improve CAD designs, BOM accuracy, and manufacturing processes.

### *Documentation and Innovation*

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

- PC7.** Maintain repair, upgrade, and improvement records as per organizational formats.
- PC8.** Stay updated with emerging drone technologies, programming techniques, and manufacturing trends.
- PC9.** Assist to prototyping, pilot testing, and documentation of new drone models or assembly methods.

### *Safety, Work Ethics, and Compliance*

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

- PC10.** Apply ESD safety practices, PPE, and grounding requirements across all drone processes.

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- PC11.** Follow organizational policies on workplace discipline, ethics, and environmental sustainability.
- PC12.** Ensure DGCA compliance with national and international standards for drone assembly, testing, and operations.
- PC13.** Maintain confidentiality of organizational data and respect intellectual property rights.

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** Knowledge of systematic troubleshooting methods for drone systems
- KU2.** Understanding of drone components repair replacement and validation processes
- KU3.** Knowledge of hardware software and firmware upgrade techniques
- KU4.** Understanding of documentation practices design feedback and innovation processes
- KU5.** Knowledge of safety standards compliance requirements and work ethics

## Generic Skills (GS)

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

- GS1.** Ability to diagnose faults using tools software and logical methods
- GS2.** Ability to repair replace and test drone components effectively
- GS3.** Ability to implement upgrades and suggest design improvements
- GS4.** Ability to maintain accurate records and support prototyping activities
- GS5.** Ability to follow safety ethics confidentiality and regulatory compliance



## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Troubleshooting and Repair</i>	<b>9</b>	<b>15</b>	-	-
<b>PC1.</b> Diagnose technical issues in drones using systematic troubleshooting methods and diagnostic software.	-	-	-	-
<b>PC2.</b> Repair or replace faulty components such as motors, ESCs, sensors, GPS modules, wiring, or batteries.	-	-	-	-
<b>PC3.</b> Validate repair work through integrated functional and flight-readiness testing.	-	-	-	-
<i>Upgrades and Design Feedback</i>	<b>9</b>	<b>15</b>	-	-
<b>PC4.</b> Upgrade drone capacity (payload, endurance, flight range) through hardware modifications or optimized programming.	-	-	-	-
<b>PC5.</b> Implement software and firmware upgrades to enhance drone category performance.	-	-	-	-
<b>PC6.</b> Review feedback on recurring failures to improve CAD designs, BOM accuracy, and manufacturing processes.	-	-	-	-
<i>Documentation and Innovation</i>	<b>10</b>	<b>14</b>	-	-
<b>PC7.</b> Maintain repair, upgrade, and improvement records as per organizational formats.	-	-	-	-
<b>PC8.</b> Stay updated with emerging drone technologies, programming techniques, and manufacturing trends.	-	-	-	-
<b>PC9.</b> Assist to prototyping, pilot testing, and documentation of new drone models or assembly methods.	-	-	-	-
<i>Safety, Work Ethics, and Compliance</i>	<b>12</b>	<b>16</b>	-	-
<b>PC10.</b> Apply ESD safety practices, PPE, and grounding requirements across all drone processes.	-	-	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC11.</b> Follow organizational policies on workplace discipline, ethics, and environmental sustainability.	-	-	-	-
<b>PC12.</b> Ensure DGCA compliance with national and international standards for drone assembly, testing, and operations.	-	-	-	-
<b>PC13.</b> Maintain confidentiality of organizational data and respect intellectual property rights.	-	-	-	-
<b>NOS Total</b>	<b>40</b>	<b>60</b>	-	-

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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	ELE/N7313
<b>NOS Name</b>	Troubleshooting, Repair, Upgrades, and Continuous Improvement of Drones
<b>Sector</b>	Electronics
<b>Sub-Sector</b>	
<b>Occupation</b>	Assembly-I&A
<b>NSQF Level</b>	4
<b>Credits</b>	5
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	16/12/2025
<b>Next Review Date</b>	27/10/2028
<b>NSQC Clearance Date</b>	16/12/2025

## 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

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### *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

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- 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

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### 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	-	-	-	-

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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>	16/12/2025
<b>Next Review Date</b>	27/10/2028
<b>NSQC Clearance Date</b>	16/12/2025

## 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) will be assigned marks proportional to its importance in NOS. SSC will also lay down the proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on the knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/optional NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for the theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at

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each examination/ training center based on these criteria.

6. To pass the Qualification Pack assessment, every trainee should score a minimum of 70% of % aggregate marks to successfully clear the assessment.

7. 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
ELE/N7311.Understanding Drone Fundamentals, Types, Applications, and Assembly	40	60	-	-	100	30
ELE/N7312.Testing, Calibration, Programming, and Quality Assurance of Drones	40	60	-	-	100	30
ELE/N7313.Troubleshooting, Repair, Upgrades, and Continuous Improvement of Drones	40	60	-	-	100	30
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	-	-	50	10
<b>Total</b>	<b>140</b>	<b>210</b>	<b>-</b>	<b>-</b>	<b>350</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

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### 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.

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<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.