



# Wiring Harness Assembly Operator

QP Code: ELE/Q6306

Version: 1.0

NSQF Level: 3

Electronics Sector Skills Council of India || 155, 2nd Floor, ESC House Okhla Industrial Area-Phase 3  
New Delhi- 110020 || email:standards@essc-india.org

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## ELE/Q6306: Wiring Harness Assembly Operator

### Brief Job Description

The individual makes a wire harness assembly by cutting, stripping and crimping wires and then soldering, connecting, taping and labeling them on a laying board as per the design specifications. This is followed by testing the components of the assembly.

### Personal Attributes

The job requires the individual to have good eyesight and no colour blindness to pay attention to detail. The individual should be fluent in English to read specification diagrams and be comfortable working with high-frequency machines and long hours of sitting.

### Applicable National Occupational Standards (NOS)

#### Compulsory NOS:

1. [ELE/N6306: Perform pre-assembly operations](#)
2. [ELE/N6307: Assemble the components of wire harness](#)
3. [ELE/N9972: Communicate and coordinate effectively with others](#)
4. [ELE/N1003: Work effectively, sustainably and safely](#)

### Qualification Pack (QP) Parameters

<b>Sector</b>	Electronics
<b>Sub-Sector</b>	Electronics Manufacturing System
<b>Occupation</b>	Production-EMS
<b>Country</b>	India
<b>NSQF Level</b>	3
<b>Credits</b>	NA
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2016/NIL

<b>Minimum Educational Qualification &amp; Experience</b>	10th Class with 3 Years of experience (relevant) OR 12th Class/I.T.I ((After 10th)) with 1 Year of experience (relevant) OR Certificate-NSQF ((of Level-2 in the domain of Electronics / Electrical / Mechanical) OR Diploma (in Electrical or Electronics Engineering) )
<b>Minimum Level of Education for Training in School</b>	
<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	30/12/2021
<b>Next Review Date</b>	30/12/2026
<b>Deactivation Date</b>	31/07/2024
<b>NSQC Approval Date</b>	30/12/2021
<b>Version</b>	1.0
<b>Reference code on NQR</b>	2021/EHW/ESSC/04792
<b>NQR Version</b>	1.0

## **ELE/N6306: Perform pre-assembly operations**

### **Description**

This OS unit is about the pre-assembly operations involving cutting and crimping wires as per the specification of wire harness assembly layout.

### **Scope**

The scope covers the following :

- Analyse work requirements
- Perform cutting and crimping of wires
- Achieve quality and productivity

### **Elements and Performance Criteria**

#### *Analyse work requirements*

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

- PC1.** collect the work requirements and special instructions for pre-assembly of the first piece from supervisor
- PC2.** analyse the process flow of wire harness pre-assembly
- PC3.** identify the material handling guidelines/specifications and scope of work

#### *Perform cutting and crimping of wires*

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

- PC4.** interpret the cutting chart, strip length chart and splice chart to understand the assembly requirements
- PC5.** seek approval from Quality Assurance (QA) team to begin assembly of components
- PC6.** cut and strip the wires to bundle them properly as per the required size for assembly
- PC7.** perform crimping of wires to terminals/other wires using the respective machine, while considering the crimp height and pull force
- PC8.** inspect the crimped wires visually to ensure they are defect-free
- PC9.** use calibrated measuring instruments to determine the total length of wires, verify the strip length and measure crimp height
- PC10.** carry out in-process inspection at each stage of assembly as per the control plan to identify any anomalies in the components before assembly
- PC11.** store the product of each process, such as cut and crimped wires, in a safe and secured manner, ready for assembly

#### *Achieve quality and productivity*

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

- PC12.** achieve maximum efficiency in optimal time with minimum damage and zero defects at each stage
- PC13.** comply with all product safety measures and standards
- PC14.** work with the quality assurance team to ensure quality standards are met for each component of the assembly

**PC15.** conform to statutory requirements on environment protection and resource conservation

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** process flow /checklist of the organization for wiring harness assembly
- KU2.** standard operating procedures of the organization for assembly line and components/resource usage
- KU3.** reporting structure and hierarchy
- KU4.** documentation procedures and norms for recording anomalies and defect reports
- KU5.** electronic components, their functioning, types and typical usage
- KU6.** assembly process and its steps / stages - cutting, crimping, taping, labelling, testing, soldering etc.
- KU7.** various techniques for cutting, crimping, types of crimping, defects in crimping, stripping, soldering, taping, bunching etc.
- KU8.** acceptable range of cutting/stripping as per work instructions / job sheet specifications
- KU9.** machine programs and operations for cutting and crimping
- KU10.** standards related to workmanship for Wiring Harness Assembly i.e. IPC 620
- KU11.** how to handle raw materials needed for assembly using appropriate precautions
- KU12.** routine/daily maintenance of machines, basic repairs and calibration of measuring instruments
- KU13.** Standards of 5S
- KU14.** commonly occurring machine and component defects
- KU15.** basic computer software such as MS Office, SAP

## Generic Skills (GS)

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

- GS1.** read technical and process documentation
- GS2.** write reports, instructions and other information
- GS3.** escalate issues which are out of scope
- GS4.** record the details of the work done as per the job sheet
- GS5.** co-ordinate with the supervisor on process issues
- GS6.** manage tasks to complete them within the time frame as per the work schedule



## Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Analyse work requirements</i>	<b>9</b>	<b>9</b>	-	<b>3</b>
<b>PC1.</b> collect the work requirements and special instructions for pre-assembly of the first piece from supervisor	-	-	-	-
<b>PC2.</b> analyse the process flow of wire harness pre-assembly	-	-	-	-
<b>PC3.</b> identify the material handling guidelines/specifications and scope of work	-	-	-	-
<i>Perform cutting and crimping of wires</i>	<b>16</b>	<b>16</b>	-	<b>8</b>
<b>PC4.</b> interpret the cutting chart, strip length chart and splice chart to understand the assembly requirements	-	-	-	-
<b>PC5.</b> seek approval from Quality Assurance (QA) team to begin assembly of components	-	-	-	-
<b>PC6.</b> cut and strip the wires to bundle them properly as per the required size for assembly	-	-	-	-
<b>PC7.</b> perform crimping of wires to terminals/other wires using the respective machine, while considering the crimp height and pull force	-	-	-	-
<b>PC8.</b> inspect the crimped wires visually to ensure they are defect-free	-	-	-	-
<b>PC9.</b> use calibrated measuring instruments to determine the total length of wires, verify the strip length and measure crimp height	-	-	-	-
<b>PC10.</b> carry out in-process inspection at each stage of assembly as per the control plan to identify any anomalies in the components before assembly	-	-	-	-
<b>PC11.</b> store the product of each process, such as cut and crimped wires, in a safe and secured manner, ready for assembly	-	-	-	-
<i>Achieve quality and productivity</i>	<b>15</b>	<b>20</b>	-	<b>4</b>

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> achieve maximum efficiency in optimal time with minimum damage and zero defects at each stage	-	-	-	-
<b>PC13.</b> comply with all product safety measures and standards	-	-	-	-
<b>PC14.</b> work with the quality assurance team to ensure quality standards are met for each component of the assembly	-	-	-	-
<b>PC15.</b> conform to statutory requirements on environment protection and resource conservation	-	-	-	-
<b>NOS Total</b>	<b>40</b>	<b>45</b>	<b>-</b>	<b>15</b>



## National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	ELE/N6306
<b>NOS Name</b>	Perform pre-assembly operations
<b>Sector</b>	Electronics
<b>Sub-Sector</b>	Electronics Manufacturing System
<b>Occupation</b>	Assembly and Integration
<b>NSQF Level</b>	3
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	30/12/2021
<b>Next Review Date</b>	27/01/2027
<b>NSQC Clearance Date</b>	27/01/2022

## **ELE/N6307: Assemble the components of wire harness**

### **Description**

This OS unit is about the assembly operations of routing, inserting the tubes / terminals, taping, labelling, cutting and crimping wires as per the specification on the laying board.

### **Scope**

The scope covers the following :

- Assemble the wire harness
- Test the components of wire harness assembly

### **Elements and Performance Criteria**

#### *Assemble the wire harness*

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

- PC1.** connect the ready wires as per the laying board and diagram
- PC2.** Route leads and subassemblies as per diagram on the laying board
- PC3.** identify the appropriate type of taping to be used for the wires as per the laying board, such as full taping, spiral, spot, sleeving, cable tie, or end taping and use the tape of approved material, such as PVC or cloth, and size as specified
- PC4.** insert taped wires into corrugated tubes/heat shrink/sleeving for protection, including vinyl tube (VTB) of proper ID and length as per laying board
- PC5.** check that the terminals are properly locked in the housing
- PC6.** label the wires and connections clearly such that they are visible on the wiring harness
- PC7.** use stud mountable clamps at specified positions in the assembly
- PC8.** finalize the assembly and check for connections and proper lock on wires

#### *Test the components of wire harness assembly*

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

- PC9.** use appropriate PPE, such as/ESD bands and glasses, before testing the wire harness assembly
- PC10.** visually inspect the assembly as per check list and correct any defects/anomalies
- PC11.** perform tests as per the check list, including tests for broken wires, shorts, crimping, soldering, damaged insulation, wiring continuity etc. using proper testing equipment
- PC12.** maintain testing records with details about the defects, if found, and corrective action taken
- PC13.** report the test results to the supervisor after completing all tests

### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- KU1.** importance of using PPE and testing equipment for assembly
- KU2.** electrostatic discharge (ESD), its sources/causes and precautions/safety measures

- KU3.** testing procedure of wire harness assembly process
- KU4.** reporting structure and hierarchy for defects and anomalies
- KU5.** typical defects observed in adhesive tapes, ties, heat shrinkable sleeves, soldering gun, soldering metal, flux and other materials used in assembly
- KU6.** different types of tests to be performed on clamps and fitting stud on which clamps are mounted
- KU7.** symbols and color codes used on the laying board, wires and terminals

### **Generic Skills (GS)**

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

- GS1.** read schematics, blueprints, product and customer specifications required for assembly and testing
- GS2.** coordinate with colleagues and supervisor to discuss problems/issues and their solutions
- GS3.** interact in a polite and courteous manner
- GS4.** adhere to the rules and regulations of the organisation
- GS5.** importance of maintaining clean surface/work area

## Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Assemble the wire harness</i>	<b>27</b>	<b>25</b>	-	<b>8</b>
<b>PC1.</b> connect the ready wires as per the laying board and diagram	3	3	-	1
<b>PC2.</b> Route leads and subassemblies as per diagram on the laying board	3	3	-	1
<b>PC3.</b> identify the appropriate type of taping to be used for the wires as per the laying board, such as full taping, spiral, spot, sleeving, cable tie, or end taping and use the tape of approved material, such as PVC or cloth, and size as specified	3	3	-	1
<b>PC4.</b> insert taped wires into corrugated tubes/heat shrink/sleeving for protection, including vinyl tube (VTB) of proper ID and length as per laying board	3	3	-	1
<b>PC5.</b> check that the terminals are properly locked in the housing	4	3	-	1
<b>PC6.</b> label the wires and connections clearly such that they are visible on the wiring harness	4	3	-	1
<b>PC7.</b> use stud mountable clamps at specified positions in the assembly	3	3	-	1
<b>PC8.</b> finalize the assembly and check for connections and proper lock on wires	4	4	-	1
<i>Test the components of wire harness assembly</i>	<b>18</b>	<b>17</b>	-	<b>5</b>
<b>PC9.</b> use appropriate PPE, such as/ESD bands and glasses, before testing the wire harness assembly	3	3	-	1
<b>PC10.</b> visually inspect the assembly as per check list and correct any defects/anomalies	3	4	-	1
<b>PC11.</b> perform tests as per the check list, including tests for broken wires, shorts, crimping, soldering, damaged insulation, wiring continuity etc. using proper testing equipment	4	4	-	1
<b>PC12.</b> maintain testing records with details about the defects, if found, and corrective action taken	4	3	-	1

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC13.</b> report the test results to the supervisor after completing all tests	4	3	-	1
<b>NOS Total</b>	<b>45</b>	<b>42</b>	<b>-</b>	<b>13</b>

## National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	ELE/N6307
<b>NOS Name</b>	Assemble the components of wire harness
<b>Sector</b>	Electronics
<b>Sub-Sector</b>	Electronics Manufacturing System
<b>Occupation</b>	Assembly and Integration
<b>NSQF Level</b>	3
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	30/12/2021
<b>Next Review Date</b>	27/01/2027
<b>NSQC Clearance Date</b>	27/01/2022

## **ELE/N9972: Communicate and coordinate effectively with others**

### **Description**

This unit is about effective, respectful communication and coordination with supervisors and colleagues

### **Scope**

The scope covers the following :

- This unit/task covers the following:
- Communicate effectively with supervisor and colleagues
- Respect gender and ability differences

### **Elements and Performance Criteria**

#### *Communicate effectively with supervisor and colleagues*

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

- PC1.** communicate potential hazards of a particular location
- PC2.** comply with organisation's policies and procedures for working with colleagues
- PC3.** maintain personal hygiene and professional appearance
- PC4.** seek clarification on the information provided by supervisor, if needed
- PC5.** respect the personal and professional space of colleagues and superiors
- PC6.** report work completed as per the schedule to superior and inform of any deviations or anomalies
- PC7.** analyse and act on feedback received from supervisor

#### *Respect gender and ability differences*

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

- PC8.** work depicting proper behaviour towards all genders and people with disability
- PC9.** identify acts of discrimination and sexual harassment and report to concerned authorities

### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- KU1.** importance of personal grooming
- KU2.** organisation's policy on code of conduct
- KU3.** organisation's reporting structure and documentation policy
- KU4.** how to communicate effectively through all means including face-to-face, telephonic as well as written
- KU5.** different types of information that colleagues might need and the importance of providing the same as and when required
- KU6.** rights and duties w.r.t PwD at workplace
- KU7.** organisation policies and standards to support PwD



- KU8.** gender and disability based concepts or issues such as social and cultural bias, gender roles stereotypes, gender inequality and discrimination, especially for women and transgender
- KU9.** organisation grievance redressal mechanisms and related legislations
- KU10.** health and safety precautions for all individuals, including PwD at workplace

### **Generic Skills (GS)**

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

- GS1.** listen actively and carefully in all interactions
- GS2.** communicate politely under all circumstances
- GS3.** report potential areas of disruptions to work process in writing or in person
- GS4.** maintain positive and effective relationships with others
- GS5.** decide when to report to supervisor and when to deal with a colleague depending on the type of concern
- GS6.** receive and act on supervisor's feedback in a constructive manner
- GS7.** speak, listen, and write using gender-inclusive or gender-neutral terms and gestures
- GS8.** be aware and accountable of ones own gender identity and role, as well as beliefs and practices about disability

## Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Communicate effectively with supervisor and colleagues</i>	<b>27</b>	<b>51</b>	-	-
<b>PC1.</b> communicate potential hazards of a particular location	4	7	-	-
<b>PC2.</b> comply with organisation's policies and procedures for working with colleagues	4	7	-	-
<b>PC3.</b> maintain personal hygiene and professional appearance	4	7	-	-
<b>PC4.</b> seek clarification on the information provided by supervisor, if needed	4	8	-	-
<b>PC5.</b> respect the personal and professional space of colleagues and superiors	3	8	-	-
<b>PC6.</b> report work completed as per the schedule to superior and inform of any deviations or anomalies	4	7	-	-
<b>PC7.</b> analyse and act on feedback received from supervisor	4	7	-	-
<i>Respect gender and ability differences</i>	<b>8</b>	<b>14</b>	-	-
<b>PC8.</b> work depicting proper behaviour towards all genders and people with disability	4	7	-	-
<b>PC9.</b> identify acts of discrimination and sexual harassment and report to concerned authorities	4	7	-	-
<b>NOS Total</b>	<b>35</b>	<b>65</b>	-	-

## National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	ELE/N9972
<b>NOS Name</b>	Communicate and coordinate effectively with others
<b>Sector</b>	Electronics
<b>Sub-Sector</b>	Generic
<b>Occupation</b>	Generic - Organizational Behaviour
<b>NSQF Level</b>	3
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	24/02/2022
<b>Next Review Date</b>	27/01/2027
<b>NSQC Clearance Date</b>	27/01/2022

## ELE/N1003: Work effectively, sustainably and safely

### Description

This unit is about following health and safety procedures, waste management procedures and resource management in order to achieve required productivity and quality.

### Scope

The scope covers the following :

- This unit/task covers the following:
- Achieve optimum productivity and quality
- Implement health and safety procedures
- Organise waste management and recycling
- Conserve resources

### Elements and Performance Criteria

#### *Achieve optimum productivity and quality*

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

- PC1.** keep immediate work area clean and tidy
- PC2.** work effectively to meet daily target
- PC3.** deliver work of expected quality despite constraints
- PC4.** ensure timely completion of tasks
- PC5.** comply with organization's policies and procedures

#### *Implement health and safety procedures*

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

- PC6.** take ESD precautions while doing work
- PC7.** avoid any damage in components due to negligence in ESD procedures
- PC8.** participate in fire drills or any other safety workshops organised by the organisation
- PC9.** use appropriate Personal Protective Equipment (PPE) as advised by the organisation

#### *Organise waste management and recycling*

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

- PC10.** identify and segregate recyclable/non-recyclable and hazardous wastes
- PC11.** dispose waste as per the suggested procedures by the organization
- PC12.** participate in waste management and waste disposal workshops organised at workplace

#### *Conserve resources*

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

- PC13.** use all resources judiciously
- PC14.** perform routine cleaning of tools, machines and equipment
- PC15.** report malfunctioning of machines and equipment
- PC16.** connect electrical equipment and appliances properly when in use and turn off when not in use

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** importance of time management
- KU2.** organizational safety and health policy
- KU3.** different waste categories such as dry, wet, recyclable, non-recyclable and single use plastic items
- KU4.** usage of different colours of dustbins to dispose waste
- KU5.** cause and effect of greening of jobs
- KU6.** methods of waste disposal
- KU7.** methods of recycling as well as repairing and reusing electronic components
- KU8.** efficient utilisation of material and water
- KU9.** basics of electricity and prevalent energy efficient devices
- KU10.** ways to recognise common electrical problems
- KU11.** common practices of conserving electricity

## Generic Skills (GS)

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

- GS1.** read job cards/complaint registers for the work requirement
- GS2.** organise work and be punctual
- GS3.** read instructions, warnings, labels on equipment while doing work
- GS4.** escalate any health and safety issues to supervisors
- GS5.** report any inappropriate incidents/issues to the relevant person
- GS6.** write in local/English language and complete written work with attention to detail

## Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Achieve optimum productivity and quality</i>	<b>12</b>	<b>18</b>	-	-
<b>PC1.</b> keep immediate work area clean and tidy	2	4	-	-
<b>PC2.</b> work effectively to meet daily target	2	4	-	-
<b>PC3.</b> deliver work of expected quality despite constraints	2	3	-	-
<b>PC4.</b> ensure timely completion of tasks	3	4	-	-
<b>PC5.</b> comply with organization's policies and procedures	3	3	-	-
<i>Implement health and safety procedures</i>	<b>9</b>	<b>14</b>	-	-
<b>PC6.</b> take ESD precautions while doing work	2	4	-	-
<b>PC7.</b> avoid any damage in components due to negligence in ESD procedures	2	3	-	-
<b>PC8.</b> participate in fire drills or any other safety workshops organised by the organisation	2	3	-	-
<b>PC9.</b> use appropriate Personal Protective Equipment (PPE) as advised by the organisation	3	4	-	-
<i>Organise waste management and recycling</i>	<b>8</b>	<b>12</b>	-	-
<b>PC10.</b> identify and segregate recyclable/non-recyclable and hazardous wastes	3	4	-	-
<b>PC11.</b> dispose waste as per the suggested procedures by the organization	2	4	-	-
<b>PC12.</b> participate in waste management and waste disposal workshops organised at workplace	3	4	-	-
<i>Conserve resources</i>	<b>11</b>	<b>16</b>	-	-
<b>PC13.</b> use all resources judiciously	2	4	-	-
<b>PC14.</b> perform routine cleaning of tools, machines and equipment	3	4	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC15.</b> report malfunctioning of machines and equipment	3	4	-	-
<b>PC16.</b> connect electrical equipment and appliances properly when in use and turn off when not in use	3	4	-	-
<b>NOS Total</b>	<b>40</b>	<b>60</b>	-	-



## National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	ELE/N1003
<b>NOS Name</b>	Work effectively, sustainably and safely
<b>Sector</b>	Electronics
<b>Sub-Sector</b>	Generic
<b>Occupation</b>	Generic - Health Safety
<b>NSQF Level</b>	3
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	24/02/2022
<b>Next Review Date</b>	27/01/2027
<b>NSQC Clearance Date</b>	27/01/2022

## 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/option 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 each examination/ training center based on these criteria.
6. To pass the Qualification Pack assessment, every trainee should score a minimum of 50% 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 : 50

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

## Minimum Passing % at NOS Level: 50

(**Please note:** A Trainee must score the minimum percentage for each NOS separately as well as on the QP as a whole.)

## Assessment Weightage

### Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
ELE/N6306.Perform pre-assembly operations	40	45	-	15	100	25
ELE/N6307.Assemble the components of wire harness	45	42	-	13	100	25
ELE/N9972.Communicate and coordinate effectively with others	35	65	-	-	100	25
ELE/N1003.Work effectively, sustainably and safely	40	60	-	-	100	25
<b>Total</b>	<b>160</b>	<b>212</b>	<b>-</b>	<b>28</b>	<b>400</b>	<b>100</b>

**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
<b>ESD</b>	Electro Static Discharge

## 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.
<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.