



## Qualification Pack



# Associate Electrician

QP Code: CON/Q0607

Version: 1.0

NSQF Level: 3

Construction Skill Development Council of India || CPB 103 & 104 (1st Floor), Block 4B, DLF Corporate Park, Phase III, MG Road  
Gurgaon-122002



## Qualification Pack

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## Qualification Pack

### CON/Q0607: Associate Electrician

#### Brief Job Description

Associate Electrician assists the electrician in electrical work for the installation, repair, and maintenance of temporary LV electrical connections in the construction sites and permanent connections at residential and commercial buildings. The individual is engaged in laying conduits for LV single phase wiring.

#### Personal Attributes

The individual is expected to be physically fit and should be able to work across various locations in extreme weather/site conditions. The person should be team-oriented and safety-driven.

#### Applicable National Occupational Standards (NOS)

##### Compulsory NOS:

- [CON/N0602: Handle hand and power tools relevant to construction electrical works](#)
- [CON/N0603: Install temporary lighting arrangement at construction sites](#)
- [CON/N0604: Assist in LV\(low voltage\) electrical wiring at permanent structures](#)
- [CON/N0605: Assemble, install and maintain temporary LV electrical panels \(distribution boards\) at construction site](#)
- [CON/N8001: Work effectively in a team to deliver desired results at the workplace](#)
- [CON/N8002: Plan and organize work to meet expected outcomes](#)
- [CON/N9001: Work according to personal health, safety and environment protocols at construction site](#)
- [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

#### Qualification Pack (QP) Parameters

<b>Sector</b>	Construction
<b>Sub-Sector</b>	Real Estate and Infrastructure construction
<b>Occupation</b>	Construction Electrical Works
<b>Country</b>	India



## Qualification Pack

<b>NSQF Level</b>	3
<b>Credits</b>	7
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/7411.0100
<b>Minimum Educational Qualification &amp; Experience</b>	9th grade pass OR 8th grade pass with 1 year of (NTC/ NAC) after 8th OR 8th grade pass with 1 Year of experience relevant experience OR 5th grade pass with 4 Years of experience relevant experience OR No formal education prescribed (Previous relevant Qualification of NSQF Level 2) with 1 Year of experience relevant experience OR No formal education prescribed (Previous relevant Qualification of NSQF Level 2.5 ) with 6 Months of experience relevant experience
<b>Minimum Level of Education for Training in School</b>	
<b>Pre-Requisite License or Training</b>	NIL
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	15/02/2023
<b>Next Review Date</b>	NA
<b>NSQC Approval Date</b>	15/02/2023
<b>Version</b>	1.0
<b>Reference code on NQR</b>	QG-03-CO-00043-2023-V1-CSDCI
<b>NQR Version</b>	1



## Qualification Pack

# CON/N0602: Handle hand and power tools relevant to construction electrical works

## Description

This unit describes the knowledge and the skills required to select and use hand, power tools and electrical devices relevant to construction electrical works

## Scope

The scope covers the following :

- Handle hand/power tools for electrical works.

## Elements and Performance Criteria

*Handle hand/power tools for electrical works.*

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

- PC1.** perform basic checks on power tools prior to use
- PC2.** handle hand/power tools for establishing/ terminating electrical connections as per requirement
- PC3.** use appropriate tools to trace out short circuits/faults and leakages in electrical wiring
- PC4.** use measuring instruments to measure size and dimension of wires, conduits as per electrical installation or maintenance work requirement
- PC5.** use hand/ power tools to cut, and bend wire and conduit as per electrical installation or maintenance work requirement
- PC6.** use appropriate tools to splice wires by stripping insulation from terminal leads and twisting wires together
- PC7.** use appropriate hand/power tools to thread conduit ends, connect couplings, and fabricate and secure conduit support brackets
- PC8.** use appropriate electrical measuring devices like ammeter, voltmeter, meggers etc. to examine electrical units for power interruptions/ continuity
- PC9.** use electrical devices such as starters, circuit breakers, relays as per equipment/ wiring installation rating or current rating
- PC10.** use diagnostic devices like multi-meter, tong tester, earth tester or similar devices to install, repair power connections
- PC11.** perform maintenance and upkeep of relevant tools and devices after use

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for electrical works
- KU2.** safety rules and regulations for handling required electrical tools, equipment, and materials



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- KU3.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** single line diagram (SLD), and schematics, wiring diagrams of electrical connections including wiring symbols
- KU6.** manufacturers guidelines/ specifications for use of hand and power tools and measuring devices
- KU7.** how to use hand, power tools to carry out required activities
- KU8.** how to use electrical measuring and diagnostic devices to undertake required tests to install and maintain electrical circuits
- KU9.** basic principles of electrical current flow, fundamental terms like resistance, temperature, cross-section of conductor and their relations
- KU10.** basic concept of AC and DC
- KU11.** electrical theory such as Ohms law, Amperes law, electromagnetic field and its effects
- KU12.** types of wires, cables based on their insulation and their respective uses in LV electrical works
- KU13.** features of resistors, switches, fuses and various circuit protection devices
- KU14.** selection, use and maintenance of electrical measuring devices like digitalmultimeter, earth tester, megger, tong tester etc.
- KU15.** operating characteristics and application of electrical test equipment
- KU16.** method to trace out short circuit, power interruption/ continuity usingdiagnostic tools/devices

## Generic Skills (GS)

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

- GS1.** write in at least two languages, preferably the local language at the site and basic English
- GS2.** read SLDs, work, and safety-related instructions/signboards in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably one of the local language at site
- GS4.** listen attentively to instructions communicated by supervisors
- GS5.** communicate orally and efficiently with team members
- GS6.** resolve any conflict within the teammates
- GS7.** analyze the safety aspect of the workplace
- GS8.** plan work to achieve productivity as per the direction /close supervision of superiors
- GS9.** ensure work is done within time and as per desired quality based on instructions provided by superiors
- GS10.** evaluate the complexity of the tasks
- GS11.** identify any violation of safety norms during the work



## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Handle hand/power tools for electrical works.</i>	<b>30</b>	<b>70</b>	-	-
<b>PC1.</b> perform basic checks on power tools prior to use	-	-	-	-
<b>PC2.</b> handle hand/power tools for establishing/terminating electrical connections as per requirement	-	-	-	-
<b>PC3.</b> use appropriate tools to trace out short circuits/faults and leakages in electrical wiring	-	-	-	-
<b>PC4.</b> use measuring instruments to measure size and dimension of wires, conduits as per electrical installation or maintenance work requirement	-	-	-	-
<b>PC5.</b> use hand/ power tools to cut, and bend wire and conduit as per electrical installation or maintenance work requirement	-	-	-	-
<b>PC6.</b> use appropriate tools to splice wires by stripping insulation from terminal leads and twisting wires together	-	-	-	-
<b>PC7.</b> use appropriate hand/power tools to thread conduit ends, connect couplings, and fabricate and secure conduit support brackets	-	-	-	-
<b>PC8.</b> use appropriate electrical measuring devices like ammeter, voltmeter, meggers etc. to examine electrical units for power interruptions/ continuity	-	-	-	-
<b>PC9.</b> use electrical devices such as starters, circuit breakers, relays as per equipment/ wiring installation rating or current rating	-	-	-	-
<b>PC10.</b> use diagnostic devices like multi-meter, tong tester, earth tester or similar devices to install, repair power connections	-	-	-	-
<b>PC11.</b> perform maintenance and upkeep of relevant tools and devices after use	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>70</b>	-	-



## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	CON/N0602
<b>NOS Name</b>	Handle hand and power tools relevant to construction electrical works
<b>Sector</b>	Construction
<b>Sub-Sector</b>	Real Estate and Infrastructure construction
<b>Occupation</b>	Construction Electrical Works
<b>NSQF Level</b>	3
<b>Credits</b>	0.5
<b>Version</b>	4.0
<b>Last Reviewed Date</b>	15/02/2023
<b>Next Review Date</b>	NA
<b>NSQC Clearance Date</b>	15/02/2023





## Qualification Pack

# CON/N0603: Install temporary lighting arrangement at construction sites

## Description

This unit describes the knowledge and the skills required to install temporary lighting arrangement at construction sites

## Scope

The scope covers the following :

- Installation of temporary lighting arrangements at construction sites.
- Maintenance of installed lighting arrangement.

## Elements and Performance Criteria

### *Installation of temporary lighting arrangement at construction sites.*

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

- PC1.** check cable, conduits , lights, sockets, temporary power distribution panels at power source and other required fixtures and accessories as per manufacturers guidelines and specification
- PC2.** lay cables through ducts or conduits, underground or through poles (overhead) as per plans and instructions
- PC3.** select the type and wattage of lights considering illumination requirement at worksite and install them at secured positions
- PC4.** fix lights and its accessories, brackets, bulkheads with screws and bolts or by other standard means, pull wires through conduit leading to connection boxes, temporary panels/ distribution boards or other temporary electrical terminals
- PC5.** extend/ join LV electrical cable using straight through joints, splicing them together and secure joints by applying PVC insulation tapes, caps or by other safe method as and when necessary
- PC6.** carry out termination of LV cables selecting the right method as per standard practice
- PC7.** work safely as per electrical safety guidelines provided by manufacturer, standard safety practice or organizational safety norms while establishing or disconnecting live electrical connections
- PC8.** upkeep of all relevant key electrical tools and fixtures
- PC9.** tag embedded, exposed electrical lines and other key equipment appropriately

### *Maintenance of installed lighting arrangements.*

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

- PC10.** shift light at various locations during construction activity as per requirement
- PC11.** repair and replace light arrangements as per instruction or requirement
- PC12.** replace burned out bulbs, light units and ballast in light fixtures as needed
- PC13.** carry out relevant tests to trace out power interruptions/ continuity at lighting arrangements
- PC14.** replace damaged cable, other relevant parts as and when necessary



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- PC15.** replace faulty circuit breakers, fuses, switches, electrical and electronic components and wire as per requirement
- PC16.** perform preventive maintenance on diesel generators at site provided for temporary lighting (if any) at scheduled intervals as per direction of concerned authority

### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for establishing temporary lighting arrangement at sites
- KU2.** safety rules and regulations for handling relevant tools, equipment, and materials for electrical works in accordance with organizational norms
- KU3.** importance of personal protection including the use of related safety gears & equipment
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** wiring symbols of single and three phase electrical wiring
- KU6.** single line diagram (SLD), and schematics, wiring diagrams of electrical connections
- KU7.** manufacturers guidelines/ specifications for use of hand, power tools and measuring devices
- KU8.** how to use hand and power tools to carry out required activities
- KU9.** how to use electrical measuring/ diagnostic devices to undertake required tests to install and maintain electrical circuits
- KU10.** electrical units of measurements and their signs (such as Watt, Ampere, Ohm, volt etc.)
- KU11.** method of termination of wires and cables during installation and maintenance
- KU12.** basic principles for setting and maintaining temporary lighting and other related electrical systems under LV connection
- KU13.** basic electrical theory such as ohms law, amperes law, electromagnetic field and its effects
- KU14.** the basic concept of single-phase and three phase LV connections and their uses
- KU15.** the basic concept of AC and DC
- KU16.** basic characteristics of series, parallel and combination circuits and test to be performed in the same
- KU17.** basic concept of bridge circuits, their connections and tests to be carried out in the same
- KU18.** the basic principle of electrical current flow, fundamental terms like resistance, temperature, cross-section of conductors and their relations
- KU19.** types of cables based on their insulation, their respective uses in electrical works and selection of cable depending upon the circuit load requirement
- KU20.** the process of joining of LV cable by straight-through joints
- KU21.** properties of conductors, insulators, and semiconductors
- KU22.** selection, use and maintenance of electrical measuring devices like digital multimeter, earth tester, megger, tong tester etc
- KU23.** method to trace out short circuit, power interruption/ continuity using diagnostic tools/devices

### Generic Skills (GS)



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

- GS1.** write in at least two languages, preferably the local language at the site and basic English
- GS2.** read SLDs, work and safety-related instructions/signboards in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably one of the local language at site
- GS4.** listen attentively to instructions communicated by supervisors
- GS5.** communicate orally and efficiently with team members
- GS6.** analyze the safety aspect of the workplace
- GS7.** resolve any conflict within the teammates
- GS8.** plan work to achieve productivity as per the direction /close supervision of superiors
- GS9.** ensure work is done within time and as per desired quality based on instructions provided by superiors
- GS10.** evaluate the complexity of the tasks
- GS11.** identify any violation of safety norms during the work



## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Installation of temporary lighting arrangement at construction sites.</i>	<b>15</b>	<b>35</b>	-	-
<b>PC1.</b> check cable, conduits , lights, sockets, temporary power distribution panels at power source and other required fixtures and accessories as per manufacturers guidelines and specification	-	-	-	-
<b>PC2.</b> lay cables through ducts or conduits, underground or through poles (overhead) as per plans and instructions	-	-	-	-
<b>PC3.</b> select the type and wattage of lights considering illumination requirement at worksite and install them at secured positions	-	-	-	-
<b>PC4.</b> fix lights and its accessories, brackets, bulkheads with screws and bolts or by other standard means, pull wires through conduit leading to connection boxes, temporary panels/ distribution boards or other temporary electrical terminals	-	-	-	-
<b>PC5.</b> extend/ join LV electrical cable using straight through joints, splicing them together and secure joints by applying PVC insulation tapes, caps or by other safe method as and when necessary	-	-	-	-
<b>PC6.</b> carry out termination of LV cables selecting the right method as per standard practice	-	-	-	-
<b>PC7.</b> work safely as per electrical safety guidelines provided by manufacturer, standard safety practice or organizational safety norms while establishing or disconnecting live electrical connections	-	-	-	-
<b>PC8.</b> upkeep of all relevant key electrical tools and fixtures	-	-	-	-
<b>PC9.</b> tag embedded, exposed electrical lines and other key equipment appropriately	-	-	-	-
<i>Maintenance of installed lighting arrangements.</i>	<b>15</b>	<b>35</b>	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC10.</b> shift light at various locations during construction activity as per requirement	-	-	-	-
<b>PC11.</b> repair and replace light arrangements as per instruction or requirement	-	-	-	-
<b>PC12.</b> replace burned out bulbs, light units and ballast in light fixtures as needed	-	-	-	-
<b>PC13.</b> carry out relevant tests to trace out power interruptions/ continuity at lighting arrangements	-	-	-	-
<b>PC14.</b> replace damaged cable, other relevant parts as and when necessary	-	-	-	-
<b>PC15.</b> replace faulty circuit breakers, fuses, switches, electrical and electronic components and wire as per requirement	-	-	-	-
<b>PC16.</b> perform preventive maintenance on diesel generators at site provided for temporary lighting (if any) at scheduled intervals as per direction of concerned authority	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>70</b>	-	-



## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	CON/N0603
<b>NOS Name</b>	Install temporary lighting arrangement at construction sites
<b>Sector</b>	Construction
<b>Sub-Sector</b>	Real Estate and Infrastructure construction
<b>Occupation</b>	Construction Electrical Works
<b>NSQF Level</b>	3
<b>Credits</b>	0.5
<b>Version</b>	4.0
<b>Last Reviewed Date</b>	15/02/2023
<b>Next Review Date</b>	NA
<b>NSQC Clearance Date</b>	15/02/2023



## Qualification Pack

# CON/N0604: Assist in LV(low voltage) electrical wiring at permanent structures

## Description

This unit describes the knowledge and the skills required to install LV electrical wiring at permanent structures

## Scope

The scope covers the following :

- Provide assistance for LV electrical wiring work in permanent structures

## Elements and Performance Criteria

*Provide assistance for LV electrical wiring work in permanent structures*

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

- PC1.** select house wiring components (such as wires, flexible and rigid conduits, PVC raceways, wooden battens, clamps etc. ) according to their specification / size
- PC2.** read and interpret single phase LV wiring diagram
- PC3.** carry out necessary linear measurement to cut, bend, join conduits and cables and use them as per requirement or instruction
- PC4.** lay conduit through RCC structures (slabs, beams, walls) or through chased wall (brick wall) surface as per instruction
- PC5.** lock conduit pipe in its location by means of clamp or other standard means as per instruction
- PC6.** pull, push wires through conduits in order to expose them at desired locations as per requirement
- PC7.** perform drilling and cutting using appropriate tools as per requirement
- PC8.** handle ,shift and assist in fixing electrical fixtures and fittings as per instructions
- PC9.** carry out termination of cables safely as per instruction
- PC10.** test electrical circuit during and post wiring activity using appropriate tools as per direction of electrician
- PC11.** assist in carrying out electrical earthing work by installing earthing components as per instructions

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for laying conduit and cable for LV single phase wiring work
- KU2.** safety rules and regulations for handling and storing required electrical tools, equipment, and materials



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- KU3.** personal protection including the use of related safety gears & equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** procedure for maintenance of tools and equipment
- KU6.** single line diagram (SLD), and schematics, wiring diagrams of electrical connections including wiring symbols used in single and three phase wiring
- KU7.** manufacturers guidelines/ specifications for the use of hand/power tools and measuring devices
- KU8.** how to use hand and power tools to carry out required activities
- KU9.** how to use electrical measuring/ diagnostic devices to undertake required tests to install and maintain electrical circuits
- KU10.** the procedure of selection of LV cable depending upon the circuit load requirement and types of cables based on their insulation and their respective uses in electrical works
- KU11.** electrical units of measurement and their symbols (such as Watt, Ampere, Ohm, volt etc.)
- KU12.** method of termination of wires and cables during installation and maintenance
- KU13.** basic principles for setting and maintaining temporary lighting and other related electrical systems
- KU14.** electrical theory such as ohms law, amperes law, electromagnetic field and its effects
- KU15.** the basic concept of single-phase and three-phase LV connections including their uses
- KU16.** the basic concept of AC and DC
- KU17.** basic characteristics of series, parallel and combination circuits and test to be performed on the same
- KU18.** basic concept of bridge circuits, their connections and tests to be carried out in the same
- KU19.** the basic principle of electrical current flow, fundamental terms like resistance, temperature, cross-section of conductor and their relations
- KU20.** properties of conductors, insulators, and semiconductors
- KU21.** selection, use and maintenance of electrical measuring devices like digital multimeter, earth tester, megger, tong tester etc.
- KU22.** method to trace out short circuit, power interruption/ continuity using diagnostic tools/devices

## Generic Skills (GS)

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

- GS1.** write in at least two languages, preferably the local language at the site and basic English
- GS2.** read SLDs, work and safety related instructions/signboards in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably one of the local language at site
- GS4.** listen attentively to instructions given by supervisor
- GS5.** communicate orally and efficiently with team members
- GS6.** analyze the safety aspect of the workplace
- GS7.** plan work and organize required resource effectively





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- GS8.** ensure work is done within time and as per desired quality based on instructions provided by superiors
- GS9.** resolve any conflict within the teammates
- GS10.** evaluate the complexity of the tasks
- GS11.** identify any violation of safety norms during the work



## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Provide assistance for LV electrical wiring work in permanent structures</i>	<b>30</b>	<b>70</b>	-	-
<b>PC1.</b> select house wiring components (such as wires, flexible and rigid conduits, PVC raceways, wooden battens, clamps etc. ) according to their specification / size	-	-	-	-
<b>PC2.</b> read and interpret single phase LV wiring diagram	-	-	-	-
<b>PC3.</b> carry out necessary linear measurement to cut, bend, join conduits and cables and use them as per requirement or instruction	-	-	-	-
<b>PC4.</b> lay conduit through RCC structures (slabs, beams, walls) or through chased wall (brick wall) surface as per instruction	-	-	-	-
<b>PC5.</b> lock conduit pipe in its location by means of clamp or other standard means as per instruction	-	-	-	-
<b>PC6.</b> pull, push wires through conduits in order to expose them at desired locations as per requirement	-	-	-	-
<b>PC7.</b> perform drilling and cutting using appropriate tools as per requirement	-	-	-	-
<b>PC8.</b> handle ,shift and assist in fixing electrical fixtures and fittings as per instructions	-	-	-	-
<b>PC9.</b> carry out termination of cables safely as per instruction	-	-	-	-
<b>PC10.</b> test electrical circuit during and post wiring activity using appropriate tools as per direction of electrician	-	-	-	-
<b>PC11.</b> assist in carrying out electrical earthing work by installing earthing components as per instructions	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>70</b>	-	-



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### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	CON/N0604
<b>NOS Name</b>	Assist in LV(low voltage) electrical wiring at permanent structures
<b>Sector</b>	Construction
<b>Sub-Sector</b>	Real Estate and Infrastructure construction
<b>Occupation</b>	Construction Electrical Works
<b>NSQF Level</b>	3
<b>Credits</b>	1
<b>Version</b>	4.0
<b>Last Reviewed Date</b>	15/02/2023
<b>Next Review Date</b>	NA
<b>NSQC Clearance Date</b>	15/02/2023



## Qualification Pack

# CON/N0605: Assemble, install and maintain temporary LV electrical panels (distribution boards) at construction site

## Description

This unit describes the knowledge and the skills required to assemble, install, and maintain temporary LV electrical panels (distribution boards) at construction site.

## Scope

The scope covers the following :

- Assemble temporary LV power distribution panels (distribution boards)
- Repair/ replace faulty parts/ fixtures as per requirement

## Elements and Performance Criteria

### *Assemble temporary LV power distribution panels (distribution boards)*

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

- PC1.** read relevant SLDs(Single Line Diagrams), instructions, safety guidelines, manufacturers specifications prior to assembling temporary panel/ distribution boards
- PC2.** install required fixtures like power sockets, switches, wires, MCBs(Miniature Circuit Breakers) of appropriate specification as per circuit load requirement
- PC3.** ensure tightness and safe working condition of wires, fixtures prior to the connection of the assembly with power source
- PC4.** connect DB(Distribution Board) to main power cable and perform standard tests to ensure its safe and desired working
- PC5.** place and secure the distribution board against external damaging agents like water, fire etc.
- PC6.** carry out proper termination of cables as per standard practice while connecting to the sockets of the panel
- PC7.** carry out earthing of the panels as per standard procedure
- PC8.** check and ensure necessary tagging and barrication near the live/ active electrical distribution boards

### *Repair/ replace faulty parts/ fixtures as per requirement*

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

- PC9.** carry out visual inspection of the live/ active board regularly to ensure safe working condition of all components
- PC10.** ensure that the live connections get discontinued after completion of daily construction works in order to minimize energy wastage and enhance working efficiency of electrical units
- PC11.** respond promptly to failure/ damage or malfunctioning of panel or any of its components
- PC12.** carry out necessary tests in order to determine root cause of failure
- PC13.** notify concerned authorities prior to shut down, deactivation or repair of the electrical unit
- PC14.** replace/ repair faulty components as per SLD, instructions, safety guidelines and manufacturers specifications



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- PC15.** document and keep records relevant to maintenance/ repair of panels as per organizational norms
- PC16.** isolate the panel safely and shift to another location as per requirement

### Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard practices for repairing and maintaining common electrical equipment
- KU2.** safety rules and regulations for handling required electrical tools, equipment and materials
- KU3.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** procedure for maintenance of tools and equipment
- KU6.** single line diagram (SLD), and schematics, wiring diagrams of electrical connections including wiring symbols of single and three phase wiring
- KU7.** how to use electrical measuring/ diagnostic devices to undertake required tests to install and maintain electrical circuits
- KU8.** selection of cable depending upon the circuit load requirement and insulation
- KU9.** electrical units of measurements and their signs (such as Watt, Ampere, Ohm, volt, etc.)
- KU10.** method of termination of wires and cables during installation and maintenance
- KU11.** basic principles for setting and maintaining temporary lighting and other related electrical systems
- KU12.** electrical theory such as ohms law, amperes law, electromagnetic field and its effects
- KU13.** concept of single-phase and three-phase LV connections and their uses
- KU14.** the basic concept of AC and DC
- KU15.** characteristics of series, parallel and combination circuits and test to be performed in the same
- KU16.** concept of bridge circuits, their connections and tests to be carried out in the same
- KU17.** the basic principle of electrical current flow, fundamental terms like resistance, temperature, the cross-section of conductor and their relations
- KU18.** the process of joining of LV cable by straight-through joints and other standard procedures
- KU19.** properties of conductors, insulators, and semi- conductors
- KU20.** selection, use and maintenance of electrical measuring devices like digital multimeter, earth tester, megger, tong tester etc.
- KU21.** method to trace out short circuit, power interruption/ continuity using diagnostic tools/devices

### Generic Skills (GS)

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

- GS1.** write in at least two languages, preferably the local language at the site and basic English



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- GS2.** read SLDs, work and safety-related instructions/signboards in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably one of the local language at site
- GS4.** listen attentively to instructions communicated by supervisors
- GS5.** communicate orally and efficiently with team members
- GS6.** analyze the safety aspect of the workplace
- GS7.** plan work and organize required resource effectively
- GS8.** ensure work is done within time and as per desired quality based on instructions provided by superiors
- GS9.** resolve any conflict within the teammates
- GS10.** evaluate the complexity of the task
- GS11.** identify any violation of safety norms during the work



## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Assemble temporary LV power distribution panels (distribution boards)</i>	<b>20</b>	<b>40</b>	-	-
<b>PC1.</b> read relevant SLDs(Single Line Diagrams), instructions, safety guidelines, manufacturers specifications prior to assembling temporary panel/ distribution boards	-	-	-	-
<b>PC2.</b> install required fixtures like power sockets, switches, wires, MCBs(Miniature Circuit Breakers) of appropriate specification as per circuit load requirement	-	-	-	-
<b>PC3.</b> ensure tightness and safe working condition of wires, fixtures prior to the connection of the assembly with power source	-	-	-	-
<b>PC4.</b> connect DB(Distribution Board) to main power cable and perform standard tests to ensure its safe and desired working	-	-	-	-
<b>PC5.</b> place and secure the distribution board against external damaging agents like water, fire etc.	-	-	-	-
<b>PC6.</b> carry out proper termination of cables as per standard practice while connecting to the sockets of the panel	-	-	-	-
<b>PC7.</b> carry out earthing of the panels as per standard procedure	-	-	-	-
<b>PC8.</b> check and ensure necessary tagging and barrication near the live/ active electrical distribution boards	-	-	-	-
<i>Repair/ replace faulty parts/ fixtures as per requirement</i>	<b>10</b>	<b>30</b>	-	-
<b>PC9.</b> carry out visual inspection of the live/ active board regularly to ensure safe working condition of all components	-	-	-	-



## Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC10.</b> ensure that the live connections get discontinued after completion of daily construction works in order to minimize energy wastage and enhance working efficiency of electrical units	-	-	-	-
<b>PC11.</b> respond promptly to failure/ damage or malfunctioning of panel or any of its components	-	-	-	-
<b>PC12.</b> carry out necessary tests in order to determine root cause of failure	-	-	-	-
<b>PC13.</b> notify concerned authorities prior to shut down, deactivation or repair of the electrical unit	-	-	-	-
<b>PC14.</b> replace/ repair faulty components as per SLD, instructions, safety guidelines and manufacturers specifications	-	-	-	-
<b>PC15.</b> document and keep records relevant to maintenance/ repair of panels as per organizational norms	-	-	-	-
<b>PC16.</b> isolate the panel safely and shift to another location as per requirement	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>70</b>	-	-





## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	CON/N0605
<b>NOS Name</b>	Assemble, install and maintain temporary LV electrical panels (distribution boards) at construction site
<b>Sector</b>	Construction
<b>Sub-Sector</b>	Real Estate and Infrastructure construction
<b>Occupation</b>	Construction Electrical Works
<b>NSQF Level</b>	3
<b>Credits</b>	1
<b>Version</b>	4.0
<b>Last Reviewed Date</b>	15/02/2023
<b>Next Review Date</b>	NA
<b>NSQC Clearance Date</b>	15/02/2023



## Qualification Pack

# CON/N8001: Work effectively in a team to deliver desired results at the workplace

## Description

This unit describes the skills and knowledge required to work effectively within a team to achieve the desired results

## Scope

The scope covers the following :

- Interact and communicate in an effective manner
- Support co-workers to execute the project requirements
- Practice inclusion

## Elements and Performance Criteria

### *Interact and communicate in an effective manner*

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

- PC1.** pass on work related information/ requirement clearly to the team members
- PC2.** inform co-workers and superiors about any kind of deviations from work
- PC3.** report any unresolved problem to the supervisor immediately
- PC4.** obtain instructions from superiors and respond on the same
- PC5.** communicate to team members/subordinates for appropriate work technique and method
- PC6.** seek clarification and advice as per the requirement

### *Support co-workers to execute the project requirements*

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

- PC7.** hand over the required material, tools, tackles, equipment and work fronts timely to interfacing teams
- PC8.** work together with co-workers in a synchronized manner

### *Practice inclusion*

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

- PC9.** maintain cultural inclusivity at work place
- PC10.** maintain disability friendly work practices
- PC11.** follow gender neutral practices at workplace
- PC12.** address discriminatory and offensive behaviour in a professional manner as per organizational policy

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** own roles and responsibilities



## Qualification Pack

- KU2.** importance of effective communication
- KU3.** the consequence of poor teamwork on project outcomes, timelines, safety at the construction site, etc.
- KU4.** different modes of communication used at workplace
- KU5.** importance of creating healthy and cooperative work environment among the gangs of workers
- KU6.** different activities within the work area where interaction with other workers is required
- KU7.** applicable techniques of work, properties of materials used, tools and tackles used, safety standards that co-workers might need as per the requirement
- KU8.** importance of proper and effective communication and the expected adverse effects in case of failure relating to quality, timeliness, safety, risks at the construction project site
- KU9.** importance and need of supporting co-workers facing problems for the smooth functioning of work
- KU10.** the fundamental concept of gender equality
- KU11.** how to recognise and be sensitive to issues of disability, culture and gender
- KU12.** legislation, policies, and procedures relating to gender sensitivity and cultural diversity including their impact on the area of operation

## Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read the communication regarding work completion, materials used, tools and tackles used, the resource required, etc,
- GS3.** speak in one or more languages, preferably in one of the local language of the site
- GS4.** listen and follow instructions / communication shared by superiors/ co-workers regarding team requirements or interfaces during work processes
- GS5.** communicate orally and effectively with co-workers considering their educational and social background
- GS6.** decide on what information is to be shared with co-workers within the team or to the interfacing gang of workers
- GS7.** plan work and organize the required resources in coordination with team members
- GS8.** complete all assigned task in coordination with team members
- GS9.** take initiative in resolving issues among co-workers or report the same to superiors
- GS10.** ensure best ways of coordination among team members
- GS11.** evaluate the complexity of task and determine if any guidance is required from superiors



## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Interact and communicate in an effective manner</i>	<b>18</b>	<b>42</b>	-	-
<b>PC1.</b> pass on work related information/ requirement clearly to the team members	-	-	-	-
<b>PC2.</b> inform co-workers and superiors about any kind of deviations from work	-	-	-	-
<b>PC3.</b> report any unresolved problem to the supervisor immediately	-	-	-	-
<b>PC4.</b> obtain instructions from superiors and respond on the same	-	-	-	-
<b>PC5.</b> communicate to team members/subordinates for appropriate work technique and method	-	-	-	-
<b>PC6.</b> seek clarification and advice as per the requirement	-	-	-	-
<i>Support co-workers to execute the project requirements</i>	<b>6</b>	<b>14</b>	-	-
<b>PC7.</b> hand over the required material, tools, tackles, equipment and work fronts timely to interfacing teams	-	-	-	-
<b>PC8.</b> work together with co-workers in a synchronized manner	-	-	-	-
<i>Practice inclusion</i>	<b>6</b>	<b>14</b>	-	-
<b>PC9.</b> maintain cultural inclusivity at work place	-	-	-	-
<b>PC10.</b> maintain disability friendly work practices	-	-	-	-
<b>PC11.</b> follow gender neutral practices at workplace	-	-	-	-
<b>PC12.</b> address discriminatory and offensive behaviour in a professional manner as per organizational policy	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>70</b>	-	-



## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	CON/N8001
<b>NOS Name</b>	Work effectively in a team to deliver desired results at the workplace
<b>Sector</b>	Construction
<b>Sub-Sector</b>	Real Estate and Infrastructure construction
<b>Occupation</b>	Generic 2
<b>NSQF Level</b>	4
<b>Credits</b>	1
<b>Version</b>	10.0
<b>Last Reviewed Date</b>	15/02/2023
<b>Next Review Date</b>	NA
<b>NSQC Clearance Date</b>	15/02/2023



## Qualification Pack

### CON/N8002: Plan and organize work to meet expected outcomes

#### Description

This unit describes the knowledge and the skills required for an individual to plan and organize own work in order to meet expected outcome

#### Scope

The scope covers the following :

- Plan and prepare for work
- Organise required resources as per work plan
- Complete work as per the plan

#### Elements and Performance Criteria

##### *Plan and prepare for work*

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

- PC1.** identify the targets and timelines set by superiors
- PC2.** determine the work requirements corresponding to task(drawings/schedules/instructions/methodology), safety, tools and equipment prior to commencement of task
- PC3.** plan the work by analyzing the required outcomes, work procedures, allotted time, resource availability and known priorities
- PC4.** prepare the work areas in coordination with team members
- PC5.** plan for waste collection and disposal prior to and after completion of work

##### *Organise required resources as per work plan*

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

- PC6.** arrange the required manpower prior to commencement of work
- PC7.** organize the required materials, tools and tackles required for the task

##### *Complete work as per the plan*

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

- PC8.** engage allocated manpower in an appropriate manner
- PC9.** employ correct tools, tackles and equipment for the desired work
- PC10.** provide guidance to the subordinates to obtain desired outcome
- PC11.** use resources in an optimum manner to avoid any unnecessary wastage
- PC12.** use tools, tackles and equipment carefully to avoid damage
- PC13.** ensure the work processes adopted are in line with the specified standards and instructions
- PC14.** complete the work with the allocated resources within specified time
- PC15.** clean and organise the workplace after completion of task

#### Knowledge and Understanding (KU)



## Qualification Pack

The individual on the job needs to know and understand:

- KU1.** importance of proper housekeeping including safe waste disposal
- KU2.** policies, procedures and work targets set by superiors
- KU3.** how to identify work activities that need to be planned and organized
- KU4.** how to determine the task requirements
- KU5.** how to determine the quality requirements related to the task
- KU6.** how to undertake all aspect of planning and organizing the task, including interpretation of task, reading drawing/schedules, arranging resources, reporting problems etc.
- KU7.** how to implement the planned activities
- KU8.** how to use available resources in a judicious and appropriate manner to minimize wastages or damage

## Generic Skills (GS)

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

- GS1.** write in one or more language, preferably the local language at the site
- GS2.** read communication from co-workers, superiors and notices from other departments as per requirement of the level
- GS3.** speak in one or more language, preferably one of the local language at the site
- GS4.** follow communication shared by co-workers regarding standard work processes, resources available, timelines, etc.
- GS5.** communicate effectively with co-workers and subordinates
- GS6.** decide on what sequence is to be adopted for execution of work
- GS7.** plan and organize the materials, tools, tackles and equipment required to execute the work
- GS8.** complete all assigned task with proper planning and organizing
- GS9.** analyze areas of work which could result in a delay of work, wastage of material or damage to tools and tackles
- GS10.** evaluate potential solutions to minimize avoidable delays and wastages at the construction site



## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Plan and prepare for work</i>	<b>9</b>	<b>21</b>	-	-
<b>PC1.</b> identify the targets and timelines set by superiors	-	-	-	-
<b>PC2.</b> determine the work requirements corresponding to task(drawings/schedules/instructions/methodology), safety, tools and equipment prior to commencement of task	-	-	-	-
<b>PC3.</b> plan the work by analyzing the required outcomes, work procedures, allotted time, resource availability and known priorities	-	-	-	-
<b>PC4.</b> prepare the work areas in coordination with team members	-	-	-	-
<b>PC5.</b> plan for waste collection and disposal prior to and after completion of work	-	-	-	-
<i>Organise required resources as per work plan</i>	<b>6</b>	<b>14</b>	-	-
<b>PC6.</b> arrange the required manpower prior to commencement of work	-	-	-	-
<b>PC7.</b> organize the required materials, tools and tackles required for the task	-	-	-	-
<i>Complete work as per the plan</i>	<b>15</b>	<b>35</b>	-	-
<b>PC8.</b> engage allocated manpower in an appropriate manner	-	-	-	-
<b>PC9.</b> employ correct tools, tackles and equipment for the desired work	-	-	-	-
<b>PC10.</b> provide guidance to the subordinates to obtain desired outcome	-	-	-	-
<b>PC11.</b> use resources in an optimum manner to avoid any unnecessary wastage	-	-	-	-
<b>PC12.</b> use tools, tackles and equipment carefully to avoid damage	-	-	-	-
<b>PC13.</b> ensure the work processes adopted are in line with the specified standards and instructions	-	-	-	-





## Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. complete the work with the allocated resources within specified time	-	-	-	-
PC15. clean and organise the workplace after completion of task	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>70</b>	-	-



## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	CON/N8002
<b>NOS Name</b>	Plan and organize work to meet expected outcomes
<b>Sector</b>	Construction
<b>Sub-Sector</b>	Real Estate and Infrastructure construction
<b>Occupation</b>	Generic 2
<b>NSQF Level</b>	4
<b>Credits</b>	1
<b>Version</b>	7.0
<b>Last Reviewed Date</b>	15/02/2023
<b>Next Review Date</b>	NA
<b>NSQF Clearance Date</b>	15/02/2023



## Qualification Pack

# CON/N9001: Work according to personal health, safety and environment protocols at construction site

## Description

This NOS covers the skill and knowledge required for an individual to work according to personal health, safety and environmental protocols at construction site

## Scope

The scope covers the following :

- Follow safety norms as defined by organization
- Adopt healthy & safe work practices
- Implement good housekeeping and environment protection process and activities
- Follow infection control guidelines as per applicability

## Elements and Performance Criteria

### *Follow safety norms as defined by the organization*

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

- PC1.** identify and report any hazards, risks or breaches in site safety to the appropriate authority
- PC2.** follow emergency and evacuation procedures in case of accidents, fires, natural calamities
- PC3.** follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable
- PC4.** follow all the protocols and safety techniques conveyed during safety awareness programs like Tool Box Talks, safety demonstrations and mock drills conducted at the site
- PC5.** select and operate different types of fire extinguishers corresponding to various types of fires as per EHS guideline
- PC6.** identify near miss, unsafe condition and unsafe act

### *Adopt healthy & safe work practices*

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

- PC7.** use appropriate Personal Protective Equipment (PPE) as per work requirements for : Head Protection, Ear protection, Fall Protection ,Foot Protection, Face and Eye Protection, Hand and Body Protection , and Respiratory Protection (if required)
- PC8.** handle all required tools, tackles, materials and equipment safely
- PC9.** follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines
- PC10.** check and install all safety equipment as per standard guidelines
- PC11.** follow safety protocols and practices as laid down by site EHS department
- PC12.** obtain "height pass" clearance for working at heights

### *Implement good housekeeping practices*

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

- PC13.** collect, segregate and deposit construction waste into appropriate containers based on their toxicity or hazardous nature



## Qualification Pack

**PC14.** apply ergonomic principles wherever required

*Follow infection control guidelines as per applicability*

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

**PC15.** follow recommended personal hygiene, workplace hygiene and sanitization practices

**PC16.** clean and disinfect all materials, tools and supplies before and after use

**PC17.** report immediately to concerned authorities regarding signs and symptoms of illness of self and others

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** reporting procedures in cases of breaches or hazards for site safety, accidents, and emergency situations as per guidelines
- KU2.** types of safety hazards at construction sites
- KU3.** basic ergonomic principles as per applicability
- KU4.** the procedure for responding to accidents and other emergencies at site
- KU5.** use of appropriate personal protective equipment based on various working conditions
- KU6.** importance of handling tools, equipment, and materials as per applicable norms
- KU7.** effect of construction material on health and environments as per applicability
- KU8.** various environmental protection methods as per applicability
- KU9.** storage of waste including non-combustible scrap material and debris, combustible scrap material and debris, general construction waste and trash (non-toxic, non-hazardous), any other hazardous wastes and any other flammable wastes at the appropriate location
- KU10.** how to keep the workplace neat and tidy so as to be safe
- KU11.** how to use hazardous material in a safe and appropriate manner as per applicability
- KU12.** types of fire
- KU13.** procedure of operating different types of fire extinguishers
- KU14.** safety relevant to tools, tackles, and equipment as per applicability
- KU15.** housekeeping activities relevant to task
- KU16.** ways of transmission of infection
- KU17.** ways to manage infectious risks at the workplace
- KU18.** different methods of cleaning, disinfection, sterilization, and sanitization
- KU19.** symptoms of infection like fever, cough, redness, swelling, and inflammation

## Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** fill safety formats for near miss, unsafe conditions and safety suggestions
- GS3.** read in one or more language, preferably in the local language of the site



## Qualification Pack

- GS4.** speak in one or more language, preferably in one of the local language of the site
- GS5.** listen to instructions/communication shared by site EHS and superiors regarding site safety, and conducting the toolbox talk
- GS6.** identify potential safety risks and report to the appropriate authority
- GS7.** assess and analyze areas which may affect health, safety and environment protocol on the site



## Qualification Pack

### Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Follow safety norms as defined by the organization</i>	<b>6</b>	<b>14</b>	-	-
<b>PC1.</b> identify and report any hazards, risks or breaches in site safety to the appropriate authority	-	-	-	-
<b>PC2.</b> follow emergency and evacuation procedures in case of accidents, fires, natural calamities	-	-	-	-
<b>PC3.</b> follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable	-	-	-	-
<b>PC4.</b> follow all the protocols and safety techniques conveyed during safety awareness programs like Tool Box Talks, safety demonstrations and mock drills conducted at the site	-	-	-	-
<b>PC5.</b> select and operate different types of fire extinguishers corresponding to various types of fires as per EHS guideline	-	-	-	-
<b>PC6.</b> identify near miss, unsafe condition and unsafe act	-	-	-	-
<i>Adopt healthy &amp; safe work practices</i>	<b>15</b>	<b>35</b>	-	-
<b>PC7.</b> use appropriate Personal Protective Equipment (PPE) as per work requirements for : Head Protection, Ear protection, Fall Protection ,Foot Protection, Face and Eye Protection, Hand and Body Protection , and Respiratory Protection (if required)	-	-	-	-
<b>PC8.</b> handle all required tools, tackles, materials and equipment safely	-	-	-	-
<b>PC9.</b> follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines	-	-	-	-
<b>PC10.</b> check and install all safety equipment as per standard guidelines	-	-	-	-



## Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC11.</b> follow safety protocols and practices as laid down by site EHS department	-	-	-	-
<b>PC12.</b> obtain "height pass" clearance for working at heights	-	-	-	-
<i>Implement good housekeeping practices</i>	<b>6</b>	<b>14</b>	-	-
<b>PC13.</b> collect, segregate and deposit construction waste into appropriate containers based on their toxicity or hazardous nature	-	-	-	-
<b>PC14.</b> apply ergonomic principles wherever required	-	-	-	-
<i>Follow infection control guidelines as per applicability</i>	<b>3</b>	<b>7</b>	-	-
<b>PC15.</b> follow recommended personal hygiene, workplace hygiene and sanitization practices	-	-	-	-
<b>PC16.</b> clean and disinfect all materials, tools and supplies before and after use	-	-	-	-
<b>PC17.</b> report immediately to concerned authorities regarding signs and symptoms of illness of self and others	-	-	-	-
<b>NOS Total</b>	<b>30</b>	<b>70</b>	-	-



## Qualification Pack

### National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	CON/N9001
<b>NOS Name</b>	Work according to personal health, safety and environment protocols at construction site
<b>Sector</b>	Construction
<b>Sub-Sector</b>	Real Estate and Infrastructure construction
<b>Occupation</b>	Generic Safety
<b>NSQF Level</b>	4
<b>Credits</b>	1
<b>Version</b>	8.0
<b>Last Reviewed Date</b>	15/02/2023
<b>Next Review Date</b>	NA
<b>NSQC Clearance Date</b>	15/02/2023





## 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>	NA
<b>Next Review Date</b>	27/05/2024
<b>NSQC Clearance Date</b>	27/05/2021

## 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)/ Elements 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/ Elements.
2. The assessment for the knowledge part will be based on knowledge bank of questions created by Assessment Bodies subject to approval by SSC
3. Individual assessment agencies will create unique question papers for knowledge/theory part for assessment of candidates as per assessment criteria given below
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on assessment criteria.
5. The passing percentage for each QP will be 50%. To pass the Qualification Pack, every trainee should score a minimum of 50% individually in each NOS.
6. The Assessor shall check the final outcome of the practices while evaluating the steps performed to achieve the final outcome.



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- The trainee shall be provided with a chance to repeat the test to correct his procedures in case of improper performance, with a deduction of marks for each iteration.
- After the certain number of iteration as decided by SSC the trainee is marked as fail, scoring zero marks for the procedure for the practical activity.
- In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack within the specified time frame set by SSC.
- Minimum duration of Assessment of each QP shall be of 4hrs/trainee.

### 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.)

## Assessment Weightage

### Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N0602.Handle hand and power tools relevant to construction electrical works	30	70	-	-	100	15
CON/N0603.Install temporary lighting arrangement at construction sites	30	70	-	-	100	20
CON/N0604.Assist in LV(low voltage) electrical wiring at permanent structures	30	70	-	-	100	20
CON/N0605.Assemble, install and maintain temporary LV electrical panels (distribution boards) at construction site	30	70	-	-	100	15
CON/N8001.Work effectively in a team to deliver desired results at the workplace	30	70	-	-	100	5
CON/N8002.Plan and organize work to meet expected outcomes	30	70	-	-	100	5



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National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N9001.Work according to personal health, safety and environment protocols at construction site	30	70	-	-	100	15
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	-	-	50	5
<b>Total</b>	<b>230</b>	<b>520</b>	<b>-</b>	<b>-</b>	<b>750</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
<b>SLD</b>	Single Line Diagram
<b>MCB</b>	Miniature Circuit Breakers
<b>DB</b>	Distribution Board
<b>SLD</b>	Single Line Diagram
<b>MCB</b>	Miniature Circuit Breakers
<b>DB</b>	Distribution Board



## 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.



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