



QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR CONSTRUCTION INDUSTRY

What are Occupational Standards(OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

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Contents

1. Introduction and Contents..... Page 1
2. Qualifications Pack.....Page 2
3. Glossary of Key Terms.....Page 3

Introduction

Qualifications Pack- Helper Laboratory & Field Technician

SECTOR: CONSTRUCTION

- SUB-SECTOR:**
1. Real Estate (Residential, Factories, Industry, Institutional & Special Economic Zone)
 2. Infrastructure (Roads, Railways, Runways & Urban Utilities)
 3. Power Generation (Hydro, Thermal & Nuclear)

OCCUPATION: LABORATORY & FIELD TESTING

JOB ROLE: Helper Laboratory & Field Technician

REFERENCE ID: CON/Q 0401

Aligned To : NCO-2004 / 3111.10

Laboratory & Field Testing in Construction Industry is the specialized sub-sector pertaining to the testing of all construction related materials and activities both at site as well as at permanent laboratory. This incorporates specific requirements of the project like roads, runways, buildings along with the specialized activities related to tunneling & power projects also.

Brief Job Description of Helper Laboratory & Field Technician Level-1: Individual in this position in permanent, site & field construction laboratories. He provides support to the Assistant Lab Technician / Laboratory Incharge for organizing, selecting, sifting and carrying the materials, collection of samples and finally to maintain and upkeep the laboratory premises, equipment and instruments.

Personal Attributes: This job requires the individual to work in lab whether it is in field, at site or in permanent location as a **Helper Laboratory & Field Technician**. The individual needs to be physically fit to withstand working in a construction environment and responding to the needs and requirement of the tasks. He should be able to collect samples from site by digging, boring and other means under bad conditions and climatic.



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|--------------------|---------------------------------|---|-------------------------|------------|
| Job Details | Qualifications Pack Code | CON/Q 0401 | | |
| | Job Role | Helper Laboratory & Field Technician Level-1 | | |
| | Credits(NSQF) [OPTIONAL] | TBD | Version number | 1.0 |
| | Sector | Construction | Drafted on | 30/07/2013 |
| | Sub-sector | 1. Real Estate (Residential, Factories, Industry, Institutional & Special Economic Zone) 2. Infrastructure (Roads, Railways, Runways & Urban Utilities) 3. Power Generation (Hydro, Thermal & Nuclear) | Last reviewed on | 30/07/2013 |
| | Occupation | Laboratory & Field Testing | Next review date | 30/01/2014 |

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| Job Role | Helper Laboratory & Field Technician Level-1 |
| Role Description | To work as Helper in Laboratory & Field Testing related to construction, materials and activities while attending and responding to the needs and requirement of the tasks under his trade senior level-2 and above. |
| NSQF level | 1 |
| Minimum Educational Qualifications* | Preferably equivalent to 10 th Standard |
| Maximum Educational Qualifications* | 12 th Standard |
| Training (Suggested but not mandatory) | Training to be imparted so as to on completion candidate is capable to qualify for test & certification by authorised agency for Knowledge & Skill as per NOS for Level-1. Training period may vary from 6 to 8 weeks |
| Experience | NIL |
| Applicable National Occupational Standards (NOS) | <u>Compulsory</u> 1. CON/N0018 : Health, Safety & Environment 2. CON/N0019 : Identification, use and maintain the tools and equipments 3. CON/N0020 : Material - Handling, Sampling & Storing 4. CON/N0021 : Field Testing 5. CON/N0022 : Lab Testing |
| Performance Criteria | As per Occupation Standard (OS) for Level-1 |

Glossary of Key Terms

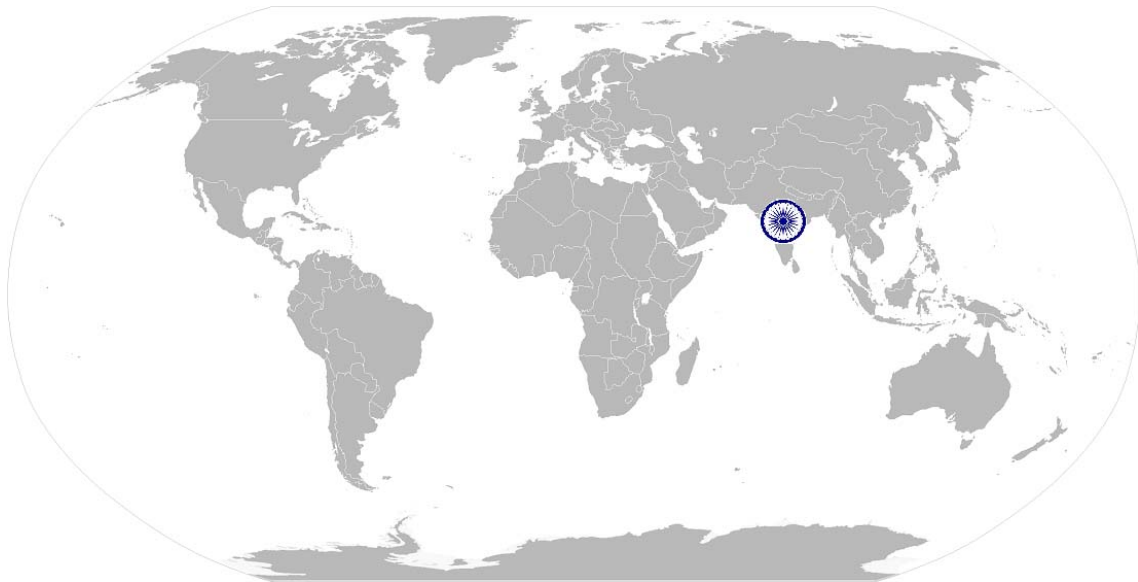
| Keywords /Terms | Description |
|---------------------------------------|---|
| Sector | Sector is conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests. |
| Sub-Sector | Sub-Sector is derived from a further breakdown based on the characteristics and interests of its components |
| Occupation | Occupation is a set of job roles, which perform similar/related set of functions in an industry |
| Job role | Job role defines a unique set of functions that together form a unique employment opportunity in an organization. |
| Occupational Standards (OS) | OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet the standard consistently. Occupational Standards are applicable both in the Indian contexts. |
| Performance Criteria | Performance Criteria are statements that together specify the standard of performance required when carrying out a task. |
| Qualifications Pack (QP) | Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualification Pack is assigned a unique qualification pack code |
| Qualification Pack Code | Qualification Pack Code is a unique reference code that identifies a qualifications pack. |
| National Occupational Standards (NOS) | NOS are Occupational Standards which apply uniquely in the Indian context. |
| Scope | Scope is the 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 the quality of performance required. |
| Knowledge and Understanding | Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard |
| Organizational Context | Organizational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility. |
| Technical Knowledge | Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities. |
| Core Skills / Generic Skills | Core Skills or Generic Skills are a group of skills that are key to learning and working 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. |
| Keywords /Terms | Description |
| CON | Construction |
| NSQF | National Skill Qualifications Framework |
| QP | Qualification Pack |
| OS | Occupational Standards |
| CSDCI | Construction Skill Development Council of India |

Definitions

Acronyms



National Occupational Standard



Overview

This NOS covers the skill and knowledge of an individual to be proficient in Health, Safety & Environment in construction sector.



CON/ N 0018: Health, Safety & Environment

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|---------------------------------------|---|--|
| National Occupational Standard | Unit Code | CON / N 0018 |
| | Unit Title (Task) | Health, Safety & Environment |
| | Description | This unit describes the skill and knowledge to make and achieve the requirement of health, safety and environment in construction sector. |
| | Scope | Health, Safety & Environment |
| | Performance Criteria(PC) w.r.t. the Scope | |
| | Element | Performance Criteria |
| | Health, Safety and Environment | <p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Demonstrate and use the Personal Protective Equipments such as Head Protection, Fall Protection, Foot Protection, Face & eye Protection, Ear Protection, Hand & Body Protection and Respiratory Protection.</p> <p>PC2. Follow Do's and Don'ts while working in lab and field</p> <p>PC3. Make out the First Aid with identification and use of basic dressing materials and bandages, resuscitation practices and actions</p> <p>PC4. Ensure the material handling such as shifting, lifting and carrying as per the procedure.</p> <p>PC5. Practice safety towards fire hazards and chemical hazards.</p> <p>The assessments based on viva-voice / interview / quiz test / demonstration technique shall be used to assess PC1 to PC5.</p> |
| | Knowledge and Understanding (K) | |
| | A. Organizational Context (Knowledge of the company / organization and its processes) | <p>The user/individual on the job needs to know and understand:</p> <p>KA1. Organizations expectations, procedures and guidelines related with safety, health and environment</p> <p>KA2. Select and check the PPEs and know the indent and return procedures.</p> <p>KA3. Obey safety procedures at the lab / field</p> <p>KA4. Different type of health and safety hazards that can be found in the workplace</p> <p>KA5. Procedures for reporting against safety violations</p> <p>KA6. Upkeep the lab / field before and after test</p> |
| | B. Technical Knowledge | <p>The user/individual on the job needs to know and understand:</p> <p>KB1. Evacuation procedures during rescue operation</p> <p>KB2. Use and importance of health, safety and accident reporting procedures</p> <p>KB3. First Aid Knowledge with identification and use of basic dressing materials</p> <p>KB4. Sound knowledge of safety norms</p> <p>KB5. Differentiate the hazard and non-hazard materials</p> |
| Skills (S) | | |
| A. Core Skills/ Generic Skills | Writing Skills | <p>The individual on the job needs to know and understand how to:</p> <p>SA1. Complete written work in details as per requirement</p> |
| | Reading Skills | <p>The individual needs to know and understand how to:</p> <p>SA2. Read instructions, guidelines, procedures, rules</p> |
| | Oral Communication (Listening and Speaking skills) | <p>The individual should do the following:</p> <p>SA3. Listen carefully and understand technicalities</p> <p>SA4. Orally communicate to others effectively</p> |
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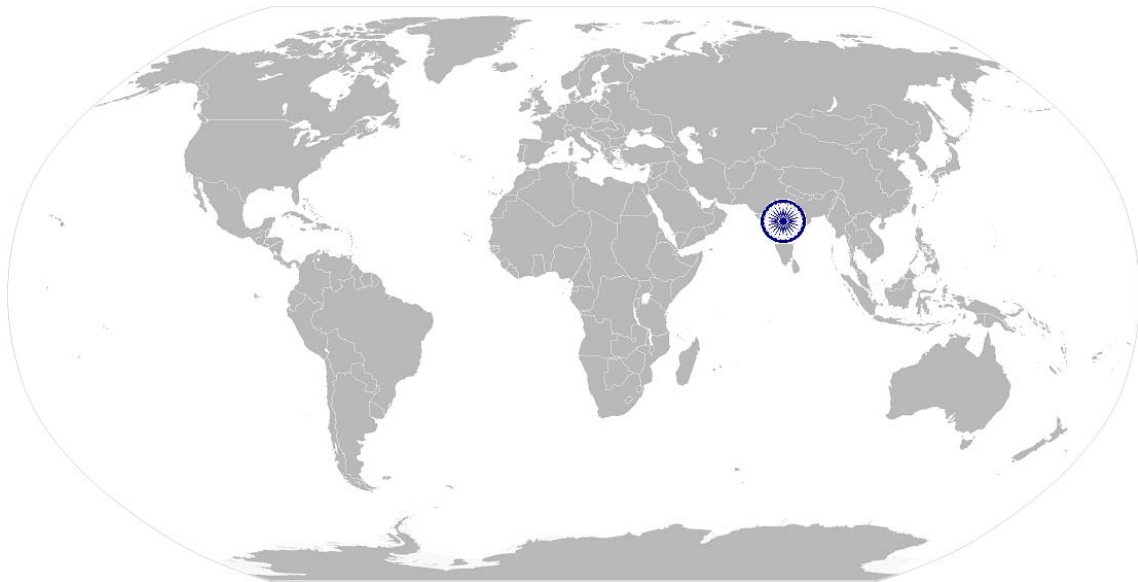


CON/ N 0018: Health, Safety & Environment

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| B. Professional Skills | Decision Making |
| | The user/ individual on the job needs to know and understand how to: SB1. Use Personal Protective equipment in an area of excessive noise and pollution |
| | Plan and Organize |
| | The user/ individual on the job needs to know and understand how to: SB2. Ensure the procedures for do's and don'ts during first aid operation SB3. Carry out the first aid procedure during emergency SB4. Follow the safety procedure for material handling during lifting |
| | Customer Centricity |
| | N.A. |
| | Problem Solving |
| | N.A. |
| | Analytical Thinking |
| | The user/ individual on the job needs to know and understand how to: SB5. Differentiate the hazards during handling of chemicals and hazards |
| | Critical Thinking |
| | N.A. |
| Attention to Detail | |
| N.A. | |
| Team Working | |
| The user/ individual on the job needs to know and understand how to: SB6. Work in coordination with trade senior SB7. Look after the interest other in case of emergency & requirement SB8. Distribute work among colleagues | |



National Occupational Standard



Overview

This NOS covers the skill and knowledge for an individual to be proficient in identifying and using basic tools and equipments.



CON/ N 0019: Identification, use and maintain the tools and equipment

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|---------------------------------------|--|---|
| National Occupational Standard | Unit Code | CON / N 0019 |
| | Unit Title (Task) | Identification, use and maintain the tools and equipment |
| | Description | This unit describes the skill and knowledge required to effectively identify, use and maintain the tools and equipment in concrete lab. |
| | Scope | Identification, use and maintain the tools and equipment |
| | Performance Criteria(PC) w.r.t. the Scope | |
| | Element | Performance Criteria |
| | Identification, use and maintain the tools and equipment | To be competent, the user/individual on the job must be able to: PC1. Identify, select and use of tools such as trowel, measuring jar, gauging trowel, scale, measuring tape, scoop, stop watch, tray, tamping rod etc. PC2. Identify, select and use of equipment such as vicat apparatus & accessories, GI Sieves, Digital weighing balance and slump cone etc. PC3. Care and maintenance of tools and equipments. PC4. Categories the equipment based on the requirement PC5. Read the gauges and meters PC6. Measure and calculate the area, volumes of solid and liquid The assessments based on viva-voice / interview / quiz test / demonstration technique shall be used to assess PC1 to PC6. |
| | Knowledge and Understanding (K) | |
| | A. Organizational Context (Knowledge of the company / organization and its processes) | The user/individual on the job needs to know and understand: KA1. The safety precautions in handling the tools and equipments in lab and field conditions KA2. Select, identify and use of right tools and equipment for appropriate job KA3. Receiving and handing over tools and equipment from the lab store. KA4. Importance of indent details for in and out KA5. Labeling the tools and equipments KA6. Complaining procedures for defected tools and equipment KA7. Disposal against tested materials, damaged tools and rejected materials. |
| | B. Technical Knowledge | The user/individual on the job needs to know and understand: KB1. Storing and handling technique of tools and equipments KB2. Upkeep repair and maintenance of tools and equipments KB3. The names and identification of various parts of the equipments KB4. Acceptance and rejection criteria of tools and equipments KB5. Preservation of equipments from dust and heat KB6. About the calibration of machines and equipment for validation KB7. Reading of gauges and meters along with the least count. |
| Skills (S) | | |
| A. Core Skills/ Generic Skills | Writing Skills The user/ individual on the job needs to know and understand how to: SA1. Record the data in the given table / format SA2. Fill and complete all the documents related to various tests under instructions from his senior SA3. Prepare sketches, diagram and layouts for identifying exact location of sampling and testing | |

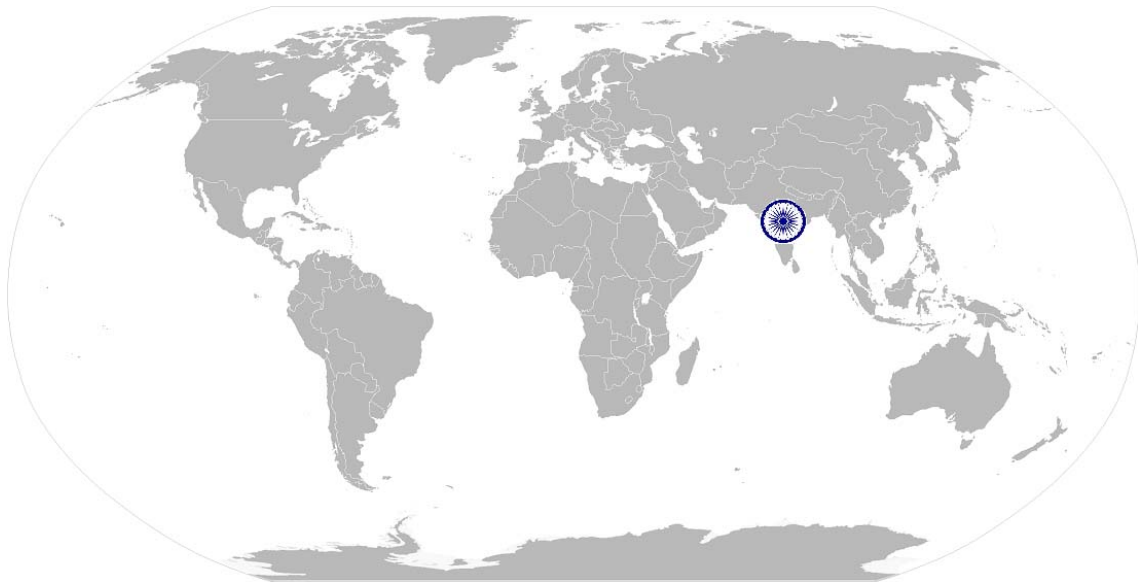


CON/ N 0019: Identification, use and maintain the tools and equipment

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| | Reading Skills |
| | The user / individual needs to know and understand how to: SA4. Read the instructions, guidelines, procedures in English and Vernacular language for sampling and testing SA5. Segregate the samples by numbering and tag tags. |
| | Oral Communication (Listening and Speaking skills) |
| | The user / individual should do the following: SA6. Listen & follow instruction accurately SA7. Orally communicate to others effectively |
| B. Professional Skills | Decision Making |
| | The user / individual needs to know and understand how to: SB1. Identify and use the tools such as trowel, measuring jar, gauging trowel, scale, measuring tape scoop, stop watch, tray, tamping rod etc. SB2. Identify, select and use of equipment such as vicat apparatus & accessories, GI Sieves, Digital weighing balance and slump cone etc. |
| | Plan and Organize |
| | The user / individual needs to know and understand how to: SB3. Carry out field testing in adverse climatic conditions SB5. Maintain and handle the tools and equipment. SB6. Read the gauges and meters for filling the testing format |
| | Customer Centricity |
| | NA |
| | Problem Solving |
| | NA |
| | Analytical Thinking |
| | The user / individual needs to know and understand how to: SB7. Arrive the area, volumes of solid and liquid from linear measurements. |
| | Critical Thinking |
| | NA |
| | Attention to Detail |
| NA | |
| Team Working | |
| The user / individual needs to know and understand how to: SB6. Involved and complete the housekeeping activities in lab and field SB7. Work in coordination with trade senior SB8. Look after the interest other in case of emergency & requirement SB9. Distribute work among colleagues | |



National Occupational Standard



Overview

This NOS covers the skill and knowledge for an individual to be proficient in Material Sampling, Handling & Storing in lab and field.



CON/ N 0020: Material - Handling, Sampling & Storing

National Occupational Standard

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| Unit Code | CON / N 0020 |
| Unit Title (Task) | Material- Handling, Sampling & Storing |
| Description | This unit describes the skills and knowledge required to effective Material Handling & Storing in lab and field. |
| Scope | Material- Handling, Sampling & Storing |
| Performance Criteria(PC) w.r.t. the Scope | |
| Element | Performance Criteria |
| Material - Handling, Sampling & Storing | To be competent, the user/individual on the job must be able to: PC1. Lift & shift the materials in accordance with workplace EHS requirement. PC2. Follow methods and sequence of sampling and collecting of materials such as cement, steel, sand, aggregate and wood etc. PC3. Understand the proper storing and stacking of cement, steel, wood, aggregate along with inflammable and other chemical hazards. PC4. Carry loose and fluid materials like chemicals, form-oil, fuel & admixtures PC5. Write and ensure the tagging and stacking system for each identification of materials for testing PC6. The assessment based on their performance and efficiency in material handling & storing shall be assessed through questions & answers and physical performance within the stipulated time. |
| Knowledge and Understanding (K) | |
| A. Organizational Context (Knowledge of the company / organization and its processes) | The user/individual on the job needs to know and understand to: KA1. Procedure for collecting the materials from field and store. KA2. Importance of indent for batch wise collection. KA3. Follow safety regulation for lifting and carrying. KA4. Store and stack the materials at identified lab locations. KA5. Ensure the importance of timely measure and enter the reading. KA6. Shift the shortfall materials within the required time from site. KA7. Return the surplus or balance materials to the site. KA8. Involve the housekeeping activities. |
| B. Technical Knowledge | The user/individual on the job needs to know and understand: KB1. Height up to which the materials should be stacked. KB2. Handling materials as per its physical properties KB3. Loading and unloading of materials within lab premises. KB4. Stacking of materials by its size, shapes and physical properties. KB5. Handling and stacking of hazard materials based on fire and spread nature. KB6. Housekeeping procedures required in the lab premises |
| Skills (S) | |
| A. Core Skills/ Generic Skills | Writing Skills |
| | The individual on the job needs to know and understand how to: SA1. Make the line, sketch and label |
| | Reading Skills |
| | The user/individual on the job needs to know and understand: SA2. Read instructions, guidelines, sign boards, safety rules & safety tags. |

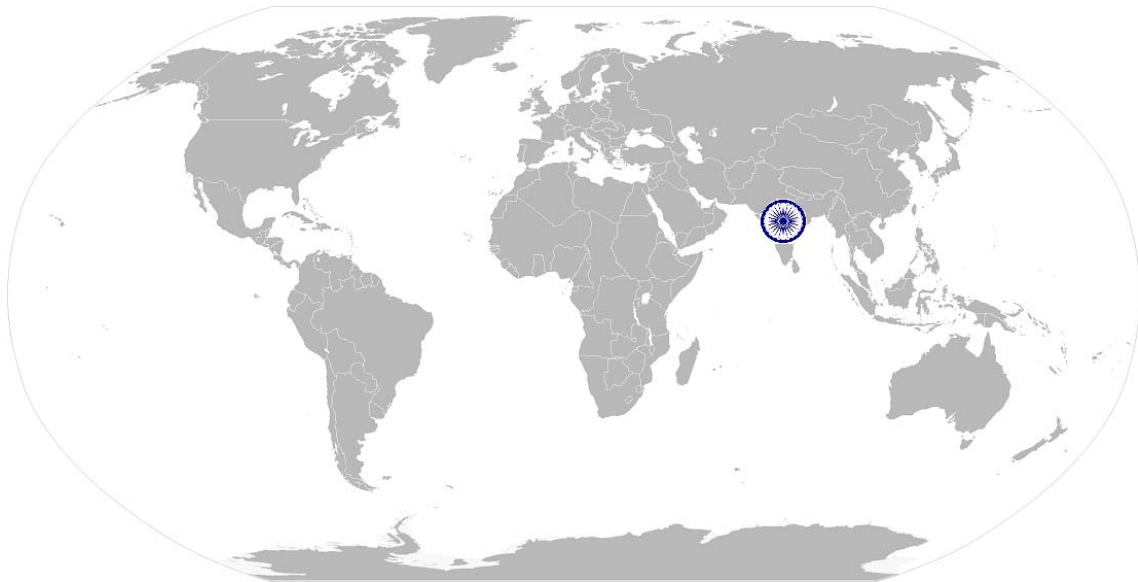


CON/ N 0020: Material - Handling, Sampling & Storing

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| B. Professional Skills | Decision Making |
| | The user/individual on the job needs to know and understand how to: SB1. Handle Equipment, tools and tackles required for material handling and storing. SB2. Stack and store the materials with proper methodology and sequence based on the labeling. SB3. Identify and stack the hazard materials based on fire and spread nature |
| | Plan and Organize |
| | The user/individual on the job needs to know and understand how to: SB4. Stacked the materials up-to the safe height. SB5. Shift materials as per its physical properties. SB6. Load and unload of materials during collection and sampling. |
| | Customer Centricity |
| | NA |
| | Problem Solving |
| | NA |
| | Analytical Thinking |
| | The user/individual on the job needs to know and understand how to: SB7. Report the observed wrong practice / misuse / damaging of materials during handling, sampling and storing of materials at workplace. |
| | Critical Thinking |
| | NA |
| | Attention to Detail |
| | NA |
| Team Working | |
| The user/individual on the job needs to know and understand how to: SB8. Housekeeping procedures required in the workplace SB9. Work in coordination with trade senior SB10. Look after the interest other in case of emergency & requirement SB11. Distribute work among colleagues | |



National Occupational Standard



Overview

This NOS covers the skill and knowledge of the individual to provide support and help in conducting the field test pertaining to the construction material and activities.



CON/ N 0021: Field Testing

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| Unit Code | CON / N 0021 |
| Unit Title (Task) | Field Testing |
| Description | This unit describes the skill and knowledge required by individual in helping and providing support for conducting the field test related to construction material and activities. |
| Scope | Field Testing |
| Performance Criteria(PC) w.r.t. the Scope | |
| Element | Performance Criteria |
| Field Testing | <p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Carry out the visual and physical checking of cement against the expiry, setting, adulteration or any other visual changes for lab testing.</p> <p>PC2. Carry out the visual and physical checking on sand for the adulteration and the activity it will be used</p> <p>PC3. Carry out the visual and physical checking on coarse aggregate for adulteration and the activity it will be used</p> <p>PC4. Carry out the visual and physical checking on bricks for size and shape, colour, ringing sound and one meter fall test</p> <p>PC5. Carry out the visual and physical checking on uniformity of mortar for sample collection</p> <p>PC6. Support and help in carrying out the workability test, water-cement ratio, temperature of concrete and making of cubes for lab testing</p> <p>PC7. Carry out the core sampling for soils to limited depth of one meter</p> <p>PC8. Carry out the core sampling of hardened concrete for nondestructive testing limited to maximum depth of 150mm.</p> <p>The assessments based on viva-voice / interview / quiz test / demonstration technique shall be used to assess PC1 to PC8.</p> |
| Knowledge and Understanding (K) | |
| A. Organizational Context (Knowledge of the company / organization and its processes) | <p>The user/individual on the job needs to know and understand to:</p> <p>KA1. Organizations expectations, procedures and guidelines related with safety, health and environment during sample collection and field testing</p> <p>KA2. Obey and involved safety procedures at the field</p> <p>KA3. Different type of health and safety hazards that can be found in the workplace</p> <p>KA4. Different sampling procedures and norms for solid and liquid materials</p> <p>KA5. Use different type of formats for appropriate tests with date and numbering</p> <p>KA6. Differentiate the numbering, coding, colouring, tag and marking for different material, samples and testing</p> |
| B. Technical Knowledge | <p>The user/individual on the job needs to know and understand to:</p> <p>KB1. Sampling methodology required material and equipment for the same</p> <p>KB2. Precautionary measures, Do's and Don'ts related to field test</p> <p>KB3. The basic measurement units and their conversion to MKS system</p> <p>KB4. The basic properties of construction materials for collecting, storing and testing</p> <p>KB5. The tolerances and limitations of the field test</p> <p>KB6. Measure and enter the reading based on least count of each equipment</p> |
| Skills (S) | |

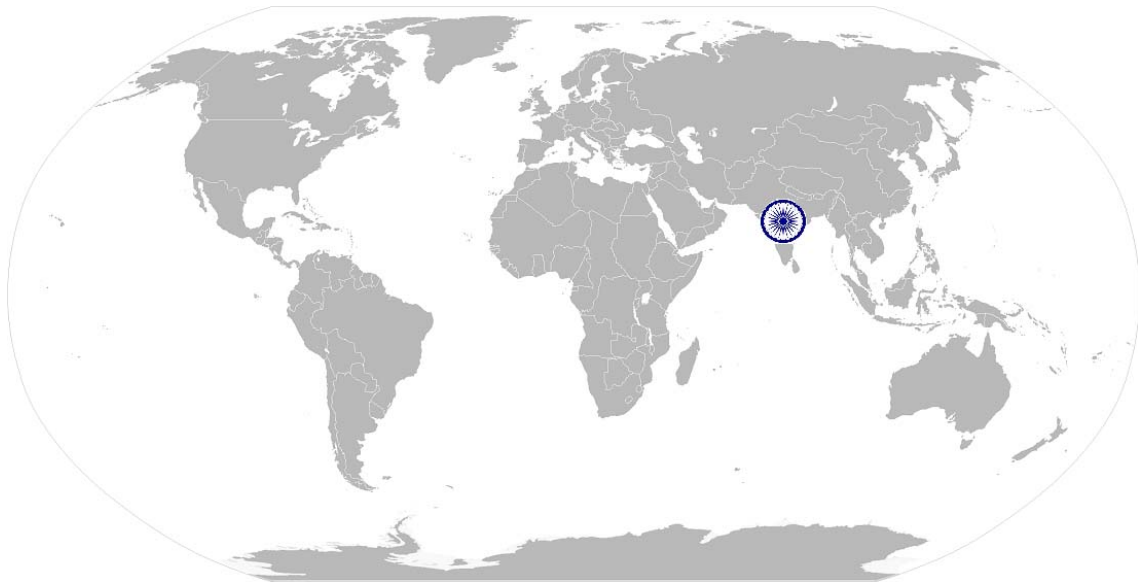


CON/ N 0021: Field Testing

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| A. Core Skills/ Generic Skills | Writing Skills |
| | The individual on the job needs to know and understand how to: SA1. Record the data in the given table / format SA2. Fill and complete all the documents related to various tests under instructions from his senior SA3. Prepare sketches, diagram and layouts |
| | Reading Skills |
| | The individual needs to know and understand how to: SA4. Read the instructions, guidelines, procedures in English and Vernacular language for sampling and testing SA5. Segregate the samples by numbering and tag tags |
| B. Professional Skills | Oral Communication (Listening and Speaking skills) |
| | The individual should do the following: SA6. Listen and follow carefully SA7. Orally communicate to others effectively |
| | Decision Making |
| | The user/ individual on the job needs to know and understand how to: SB1. Decide on the tool requirements SB2. Quality of sample collection SB3. Adopt correct methodology |
| | Plan and Organize |
| | The user/ individual on the job needs to know and understand how to: SB4. Movement of tools & items require in field / site labs SB5. Safe and secure collection of sample SB6. Data Collection |
| | Customer Centricity |
| | N.A. |
| | Problem Solving |
| | The user/ individual on the job needs to know and understand how to: SB7. Arrange field test in bad weather SB8. Variation in sample collection |
| | Analytical Thinking |
| | N.A. |
| | Critical Thinking |
| The user/ individual on the job needs to know and understand how to: SB9. In case of lost data the backup arrangement to be planned SB10. Packing material for samples | |
| Attention to Detail | |
| N.A. | |
| Team Working | |
| The user/ individual on the job needs to know and understand how to: SB11. Work in coordination with trade senior SB12. Look after the interest other in case of emergency & requirement SB13. Distribute work among colleagues | |



National Occupational Standard



Overview

This NOS covers the skill and knowledge of the individual to provide support and help in conducting the lab test pertaining to the construction material and activities.



CON/ N 0022: Lab Testing

National Occupational Standard

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| Unit Code | CON / N 0022 |
| Unit Title (Task) | Lab Testing |
| Description | This unit describes the skill and knowledge required by individual in helping and providing support for conducting the lab test related to construction material and activities. |
| Scope | Lab Testing |
| Performance Criteria(PC) w.r.t. the Scope | |
| Element | Performance Criteria |
| Lab Testing | <p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Carry out the sieve analysis test for fine and coarse aggregates</p> <p>PC3. Support and help the specific gravity test for soil, fine and coarse aggregates</p> <p>PC4. Carry out the crushing strength of bricks, aggregate and concrete cubes</p> <p>PC5. Carry out water absorption test for bricks, wood and aggregates</p> <p>PC6. Support and help in conducting the normal consistency test / initial and final setting time of cement</p> <p>PC7. Support and help in conducting test for finding safe bearing capacity of soil by various method against the material collection from field to lab</p> <p>PC8. Ensure the calibration of machine before conducting the each test</p> <p>PC9. Support and help in conducting tests for bitumen</p> <p>PC10. Assisting conducting mix design and compaction test for concrete</p> <p>The assessments based on viva-voice / interview / quiz test / demonstration technique shall be used to assess PC1 to PC10.</p> |
| Knowledge and Understanding (K) | |
| A. Organizational Context (Knowledge of the company / organization and its processes) | <p>The user/individual on the job needs to know and understand to:</p> <p>KA1. Organizations expectations, procedures and guidelines related with safety, health and environment from collected sample from field and lab testing</p> <p>KA2. Obey and involved safety procedures at the lab</p> <p>KA3. Different type of health and safety hazards that can be found in the lab atmosphere</p> <p>KA4. Different sampling procedures and norms for solid and liquid material testing</p> <p>KA5. Use different type of formats for appropriate tests with date and numbering</p> <p>KA6. Differentiate the numbering, coding, colouring, tag and marking for different material, samples for the lab testing from field.</p> |
| B. Technical Knowledge | <p>The user/individual on the job needs to know and understand:</p> <p>KB1. Identify and differentiate the materials based on label and coding by sampling</p> <p>KB2. Precautionary measures, Do's and Don'ts related to lab test</p> <p>KB3. The basic measurement units and their conversion to MKS system</p> <p>KB4. The basic properties of construction materials during testing</p> <p>KB5. The tolerances and limitations of the field test</p> <p>KB6. Measure and enter the reading based on least count of each equipment.</p> |
| Skills (S) | |
| A. Core Skills/ Generic Skills | Writing Skills |
| | <p>The individual on the job needs to know and understand how to:</p> <p>SA1. Complete written work in details.</p> |



CON/ N 0022: Lab Testing

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|--|---|
| | Reading Skills |
| | The individual needs to know and understand how to: SA2. Read instructions, guidelines, procedures, rules |
| | Oral Communication (Listening and Speaking skills) |
| | The individual should do the following: SA3. Listen carefully SA4. Orally communicate to others effectively |
| B. Professional Skills | Decision Making |
| | The user/ individual on the job needs to know and understand how to: SB1. Decide on the tool requirements SB2. Quality of sample collection SB3. Adopt correct methodology |
| | Plan and Organize |
| | The user/ individual on the job needs to know and understand how to: SB4. Movement of tools & items require in field / site labs SB5. Safe and secure collection of sample SB6. Data Collection |
| | Customer Centricity |
| | NA |
| | Problem Solving |
| | The user/ individual on the job needs to know and understand how to: SB7. Arrange field test in bad weather SB8. Variation in sample collection |
| | Analytical Thinking |
| | The user/ individual on the job needs to know and understand how to: SB4. Support and follow the instructions and methodology for crushing strength of bricks, aggregate and concrete cubes SB5. Support and follow the instructions and methodology for water absorption test for bricks, wood and aggregate |
| | Critical Thinking |
| | The user/ individual on the job needs to know and understand how to: SB9. In case of lost data the backup arrangement to be planned SB10. Packing material for samples |
| | Attention to Detail |
| | NA |
| Team Working | |
| The user/ individual on the job needs to know and understand how to: SB11. Work in coordination with trade senior SB12. Look after the interest other in case of emergency & requirement SB13. Distribute work among colleagues | |

Assessment Criteria for Helper Laboratory & Field Technician

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|----------------------|--------------------------------------|
| Job Role | Helper Laboratory & Field Technician |
| Qualification Pack | CON/Q0401 |
| Sector Skill Council | Construction |

Guidelines for Assessment

- Criteria for assessment for Qualification Pack has been created based on the NOSs and performance criteria by CSDCI. Each Performance Criteria (PC) has been assigned marks proportional to its importance within NOS and weightages have also been given among the NOSs accordingly. CSDCI has laid down the proportion of marks for Skills, Theory/Knowledge & Behaviour and Written test for each PC.
- The assessment of the theory/knowledge will be based on written test/viva-voce or both while skill test shall be hands on practical. Behaviour and attitude will be assessed while performing the task.
- The assessment shall be done as per the assessment sheets devised by CSDCI and accordingly the assessment agencies in consultation with CSDCI will create unique question papers for theory/knowledge and attitude for each candidate at each CSDCI accredited testing centres (as per assessment criteria below)
- The assessment agencies will conduct the assessment as per the guidelines given by CSDCI having unique evaluations for skill practical for every student at each CSDCI accredited testing centre based on this criteria
- To pass the Qualification Pack, every trainee should score a minimum overall percentage of **70% in Skill, 50% in Knowledge & Behaviour and 50% in Written test** separately in each attribute.
- Each student at **Level-1** has to pass in attributes namely Skill, Knowledge & Behaviour and Written test as per the percentage given below in totality.

| S. No. | NOS No. | NOS Name | Total Marks | Marks Allocation | | |
|----------------------------------|-----------|---|-------------|------------------|-----------------------|--------------|
| | | | | Skills | Knowledge & Behaviour | Written Test |
| 1 | CON/N0018 | Health, Safety & Environment | 32 | 18 | 11 | 3 |
| 2 | CON/N0019 | Identification, use and maintain the tools & equipments | 68 | 38 | 24 | 6 |
| 3 | CON/N0020 | Material – Handling, Sampling and Storing | 55 | 29 | 22 | 4 |
| 4 | CON/N0021 | Field Testing | 62 | 41 | 14 | 7 |
| 5 | CON/N0022 | Lab Testing | 61 | 40 | 14 | 7 |
| Total | | | 278 | 166 | 85 | 27 |
| Percentage weightage | | | | 60% | 30% | 10% |
| Minimum Pass % to qualify | | | | 70% | 50% | 50% |