Qualification Pack

Mason Tiling

QP Code: CON/Q0104

Version: 3.0

NSQF Level: 4

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

Contents

Qualification Pack

CON/Q0104: Mason Tiling

Brief Job Description

Mason tiling is responsible for identifying, cutting, grinding, shaping, laying, fixing and finishing the tiles on floors, walls using appropriate tools and equipment, as per the specified standards, patterns, and within dimensional accuracy.

Personal Attributes

The mason tiling is expected to be physically fit to work across various locations with varied environmental conditions. The person should be organized, diligent, methodical, safety-conscious, and a prompt decision-maker. In addition to being a team player, the individual should have good communication skills.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. CON/N0115: Lay and fix tiles both horizontally and vertically on wall and floor

2. CON/N0116: Apply grouts and sealants for flooring and cladding works

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

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

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

6. DGT/VSQ/N0102: Employability Skills (60 Hours)

Qualification Pack (QP) Parameters

Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
Country	India
NSQF Level	4
Credits	15

Aligned to NCO/ISCO/ISIC Code	NCO-2015/7122.0100

Minimum Educational Qualification & Experience	11th grade pass
	            OR
	Completed 1st year of 3-year diploma (after 10th) and pursuing regular diploma
	            OR
	10th grade pass plus 1-year NTC/ NAC
	            OR
	8th grade pass plus 2-year NTC plus 1 Year NAC
	            OR
	10th grade pass with 2 Years of experience relevant experience
	            OR
	10th grade pass and pursuing continuous schooling
	            OR
	5th grade pass
	            OR
	No formal education prescribed

Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NIL
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	31/03/2025
NSQC Approval Date	31/03/2022
Version	3.0
Reference code on NQR	2022/CON/CSDCI/06615
NQR Version	1

CON/N0115: Lay and fix tiles both horizontally and vertically on wall and floor

Description

This unit describes the skills and knowledge required to lay and fix both natural and processed tiles on floor, wall and roof surfaces

Scope

The scope covers the following :

- Carry out preparatory work prior to fixing of tiles
- Check that the tiles are as per the specifications
- Measure & cut tiles as per the design, shape and size requirements.
- Lay and fix both natural and processed tiles on wall & floors
- Check for line, level and alignment

Elements and Performance Criteria

Carry out preparatory work prior to fixing of tiles

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

PC1. read and interpret working sketches prior to laying of tiles

PC2. install button marks / level pads as per the tiling requirements using common reference line

PC3. check the basic attributes of the base surface such as compactness, squareness or right-angle slope or fall (in case of floors surface), hacking on surfaces (in case of RCC structure & walls), and completion of embedded surfaces (including MEP)

PC4. clean and wet base surfaces with water jets (except wood/vinyl)for better adhesion of tiles

PC5. soak tiles in water as per manufacturers specification, if required

PC6. prepare various surfaces as per requirement for different types of tiles such as masonry plastered surface, reinforced concrete surface, concrete block timber, and vinyl surface

Check that the tiles are as per the specifications

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

PC7. check for basic attributes of the tiles like color, shade, size and squareness before commencement of work

PC8. check batch number of all tiles to be used in order to avoid variations in shade, color or pattern

PC9. ensure that any protective layer on the tiles is removed prior to use

PC10. check for any damages / cracks on the tiles prior to use

PC11. ensure tiles are cleaned appropriately prior to fixing

Measure & cut tiles as per the design, shape and size requirements

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

PC12. carry out proper marking before cutting tiles to required shape and size

PC13. cut tiles as per the design /pattern specifications using appropriate tools to fit around obstacles & into odd spaces & corners

PC14. minimize wastage of tiles

Lay and fix both natural and processed tiles on wall & floors

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

PC15. specify the centre-point or starting point of the surface for tiling as per working drawings/sketches

PC16. ensure the preparation of bed mortar, cement slurry, cement paste and adhesives is as per specifications / requirements of tiling works

PC17. identify the laying position of tiles as per arrow marks on the tile box

PC18. maintain consistency of batch number of all tiles

PC19. prepare a bedding of appropriate thickness to act as base for fixing tiles

PC20. apply & spread cement mortar, mastic, glue or other adhesives on the base of tile using appropriate tools for fixing tiles

PC21. install roof tiles by bedding and pointing in cement mortar or by mechanical means

PC22. check for hollowness of tiled surface using wooden mallet

PC23. put spacers between tiles (if required) to minimize imperfections

PC24. protect the tiled area from damage during & after fixing of tiles

PC25. provide tile trims and strips at corner joints as per requirement

Check for line, level and alignment

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

PC26. check and provide required level and specified slope prior to and after tiling

PC27. check vertical and horizontal alignment using appropriate tools during and after tiling

PC28. set out 90-degree angle at corners using builders square or 3-4-5 method

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. standard practices for tiling work

KU2. safety rules and regulations for handling and storing relevant tools, equipment, and materials for relevant works in accordance with organizational norms

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. sketches of the area / surface on which tiles are to be laid

KU7. basic principles of measurement

KU8. different types of tiles, their sizes, shapes, properties, and application for industrial, commercial and residential purpose

KU9. how to identify the correct color, shade of tiles, different identical shades and color coding

KU10. different procedure / process for laying tile on floor, wall & roof

KU11. standard specification of all tiling tools and equipments and their care and maintenance

KU12. how to select and use basic tools and tackles for laying tiles such as measuring tape/rule, hammers, mallets, wedges, power wet saws, tile scribes or hand held tile cutters

KU13. various techniques / procedures for cutting different types of tiles to size and shape as per design requirements

KU14. use of electronic devices like laser level, machine, laser distance meter like Bosch GLL3 professional, Hilti laser PD-E, Bosch GTL 3 tile laser

KU15. basic surface preparation methods for different type of surfaces

KU16. basic methods and techniques of preparing bed mortar, cement slurry and cement paste as per applicability

KU17. different types of spacers and method of fixing and removing spacers

KU18. different types of tile trims/strips & their uses

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 sketches/routine work drawings, instructions provided for the work, and various signboards, safety rules, safety tags, exit route information 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 the site

GS4. communicate orally and effectively with team members

GS5. analyze the safety aspects of the workplace

GS6. plan work and organize required resource effectively

GS7. complete work as per agreed time schedule and quality parameters

GS8. resolve any conflict within the teammates

GS9. evaluate the complexity of the tasks

GS10. identify any violation of safety norms during the work

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Carry out preparatory work prior to fixing of tiles	**3**	**7**	**-**	**-**
PC1. read and interpret working sketches prior to laying of tiles	-	-	-	-
PC2. install button marks / level pads as per the tiling requirements using common reference line	-	-	-	-
PC3. check the basic attributes of the base surface such as compactness, squareness or right-angle slope or fall (in case of floors surface), hacking on surfaces (in case of RCC structure & walls), and completion of embedded surfaces (including MEP)	-	-	-	-
PC4. clean and wet base surfaces with water jets (except wood/vinyl)for better adhesion of tiles	-	-	-	-
PC5. soak tiles in water as per manufacturers specification, if required	-	-	-	-
PC6. prepare various surfaces as per requirement for different types of tiles such as masonry plastered surface, reinforced concrete surface, concrete block timber, and vinyl surface	-	-	-	-
Check that the tiles are as per the specifications	**3**	**7**	**-**	**-**
PC7. check for basic attributes of the tiles like color, shade, size and squareness before commencement of work	-	-	-	-
PC8. check batch number of all tiles to be used in order to avoid variations in shade, color or pattern	-	-	-	-
PC9. ensure that any protective layer on the tiles is removed prior to use	-	-	-	-
PC10. check for any damages / cracks on the tiles prior to use	-	-	-	-
PC11. ensure tiles are cleaned appropriately prior to fixing	-	-	-	-
Measure & cut tiles as per the design, shape and size requirements	**6**	**14**	**-**	**-**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. carry out proper marking before cutting tiles to required shape and size	-	-	-	-
PC13. cut tiles as per the design /pattern specifications using appropriate tools to fit around obstacles & into odd spaces & corners	-	-	-	-
PC14. minimize wastage of tiles	-	-	-	-
Lay and fix both natural and processed tiles on wall & floors	**12**	**28**	**-**	**-**
PC15. specify the centre-point or starting point of the surface for tiling as per working drawings/sketches	-	-	-	-
PC16. ensure the preparation of bed mortar, cement slurry, cement paste and adhesives is as per specifications / requirements of tiling works	-	-	-	-
PC17. identify the laying position of tiles as per arrow marks on the tile box	-	-	-	-
PC18. maintain consistency of batch number of all tiles	-	-	-	-
PC19. prepare a bedding of appropriate thickness to act as base for fixing tiles	-	-	-	-
PC20. apply & spread cement mortar, mastic, glue or other adhesives on the base of tile using appropriate tools for fixing tiles	-	-	-	-
PC21. install roof tiles by bedding and pointing in cement mortar or by mechanical means	-	-	-	-
PC22. check for hollowness of tiled surface using wooden mallet	-	-	-	-
PC23. put spacers between tiles (if required) to minimize imperfections	-	-	-	-
PC24. protect the tiled area from damage during & after fixing of tiles	-	-	-	-
PC25. provide tile trims and strips at corner joints as per requirement	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Check for line, level and alignment	**6**	**14**	**-**	**-**
PC26. check and provide required level and specified slope prior to and after tiling	-	-	-	-
PC27. check vertical and horizontal alignment using appropriate tools during and after tiling	-	-	-	-
PC28. set out 90-degree angle at corners using builders square or 3-4-5 method	-	-	-	-
NOS Total	**30**	**70**	**-**	**-**

National Occupational Standards (NOS) Parameters

NOS Code	CON/N0115
NOS Name	Lay and fix tiles both horizontally and vertically on wall and floor
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	4
Credits	7
Version	3.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022

CON/N0116: Apply grouts and sealants for flooring and cladding works

Description

This unit describes the skills & knowledge required to check for voids and uses grouts to seal joints for tile, stone, marble, and granite for flooring and cladding works

Scope

The scope covers the following :

- Carry out preparatory work for grouting of tile, stone, marble, and granite works
- Apply grout and sealant to seal the void or gap between the tiles, stones, marble, and granite
- Check for line, level & alignment

Elements and Performance Criteria

Carry out preparatory work for grouting of tile, stone, marble and granite works

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

PC1. read and interpret the working drawings / sketches prior to commencement of work

PC2. ensure curing of placed stone, marble & granite tiles

PC3. ensure joints of tiles are free from debris & carry out vacuum cleaning of the grout lines

PC4. remove thoroughly old grouting compound with appropriate tools prior to re-grouting on old surface

PC5. prepare different types of grouts as per surface requirements and manufacturers specifications

PC6. check grout material is of approved color and shade & as per pattern

PC7. check that grout material is of approved type (sanded, un sanded,) as per design/pattern requirements

Apply grout and sealant to seal the void or gap between the tiles, stones, marble & granite

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

PC8. apply the grout between grout lines/joints using appropriate tool

PC9. press the grout into the joint using appropriate tools and technique

PC10. handle grout float edge properly and prevent it from digging out the grout lines

PC11. use appropriate amount of penetrating sealant on the stones prior to fixing as per applicability

PC12. remove excess grout from the surface to avoid any grout haze on the surface

PC13. check and ensure that the grout was cured prior to application of sealant

PC14. polish the surface after application of grout in case of epoxy grouts for better aesthetics and smoother joints

PC15. add additive to cementations grouts as a substitute for water as per specifications

PC16. ensure proper care is taken for moisture sensitive and light colored natural stones to prevent strain ingress

PC17. ensure proper protective layer at the corners(tile trims/strips) of tiled surfaces

Check for line , level & alignment

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

PC18. check and provide required level and specified slope

PC19. check vertical and horizontal alignment using appropriate tools

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. standard practices for grouting works

KU2. safety rules and regulations for handling and storing relevant tools, equipment, and materials for relevant works in accordance with organizational norms

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. simple sketches for tiling works

KU7. basic principles of measurement

KU8. standard specification of all grouting tools and materials along with their care and maintenance

KU9. manufacturers instructions on grout suitability, mixing, curing and application to ensure optimum performance

KU10. how to select and use tools and equipment such as: measuring tape/rule, trowels, grout floats, surface cleaning sponges

KU11. different types of grouts used for respective tiles /stones including: cement based grout : Sanded / Non Sanded epoxy based grout

KU12. different types of process used to prepare the respective grouts for tiles and stones

KU13. standard procedure applicable for the application of grouts on the vertical or the horizontal surface

KU14. different types of liquid polymeric additives (mostly blends of acrylics and latex) added to cementations grout and their effect

KU15. how to match grout with approved color and shades, as per design

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 sketches/routine work drawings, instructions provided for the work, and various signboards, safety rules, safety tags, exit route information 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 the site

GS4. communicate orally and effectively with team members

GS5. analyze the safety aspect of the workplace

GS6. plan work and organize required resource effectively

GS7. complete work as per agreed time schedule and quality parameters

GS8. resolve any conflict within the teammates

GS9. evaluate the complexity of the tasks

GS10. identify any violation of safety norms during the work

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Carry out preparatory work for grouting of tile, stone, marble and granite works	**9**	**21**	**-**	**-**
PC1. read and interpret the working drawings / sketches prior to commencement of work	-	-	-	-
PC2. ensure curing of placed stone, marble & granite tiles	-	-	-	-
PC3. ensure joints of tiles are free from debris & carry out vacuum cleaning of the grout lines	-	-	-	-
PC4. remove thoroughly old grouting compound with appropriate tools prior to re-grouting on old surface	-	-	-	-
PC5. prepare different types of grouts as per surface requirements and manufacturers specifications	-	-	-	-
PC6. check grout material is of approved color and shade & as per pattern	-	-	-	-
PC7. check that grout material is of approved type (sanded, un sanded,) as per design/pattern requirements	-	-	-	-
Apply grout and sealant to seal the void or gap between the tiles, stones, marble & granite	**15**	**35**	**-**	**-**
PC8. apply the grout between grout lines/joints using appropriate tool	-	-	-	-
PC9. press the grout into the joint using appropriate tools and technique	-	-	-	-
PC10. handle grout float edge properly and prevent it from digging out the grout lines	-	-	-	-
PC11. use appropriate amount of penetrating sealant on the stones prior to fixing as per applicability	-	-	-	-
PC12. remove excess grout from the surface to avoid any grout haze on the surface	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. check and ensure that the grout was cured prior to application of sealant	-	-	-	-
PC14. polish the surface after application of grout in case of epoxy grouts for better aesthetics and smoother joints	-	-	-	-
PC15. add additive to cementations grouts as a substitute for water as per specifications	-	-	-	-
PC16. ensure proper care is taken for moisture sensitive and light colored natural stones to prevent strain ingress	-	-	-	-
PC17. ensure proper protective layer at the corners(tile trims/strips) of tiled surfaces	-	-	-	-
Check for line , level & alignment	**6**	**14**	**-**	**-**
PC18. check and provide required level and specified slope	-	-	-	-
PC19. check vertical and horizontal alignment using appropriate tools	-	-	-	-
NOS Total	**30**	**70**	**-**	**-**

National Occupational Standards (NOS) Parameters

NOS Code	CON/N0116
NOS Name	Apply grouts and sealants for flooring and cladding works
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Masonry
NSQF Level	4
Credits	3
Version	3.0
Last Reviewed Date	NA
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022

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

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

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Interact and communicate in an effective manner	**18**	**42**	-	-
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	**6**	**14**	-	-
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	**6**	**14**	-	-
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	-	-	-	-
NOS Total	**30**	**70**	-	-

National Occupational Standards (NOS) Parameters

NOS Code	CON/N8001
NOS Name	Work effectively in a team to deliver desired results at the workplace
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Generic 2
NSQF Level	4
Credits	1
Version	10.0
Last Reviewed Date	31/08/2023
Next Review Date	31/08/2026
NSQC Clearance Date	31/08/2023

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)

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

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Plan and prepare for work	**9**	**21**	**-**	**-**
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	**6**	**14**	**-**	**-**
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	**15**	**35**	**-**	**-**
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	-	-	-	-

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	-	-	-	-
NOS Total	**30**	**70**	**-**	**-**

National Occupational Standards (NOS) Parameters

NOS Code	CON/N8002
NOS Name	Plan and organize work to meet expected outcomes
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Generic 2
NSQF Level	4
Credits	1
Version	7.0
Last Reviewed Date	NA
Next Review Date	19/07/2023
NSQC Clearance Date	19/01/2023

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

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

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

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Follow safety norms as defined by the organization	**6**	**14**	**-**	**-**
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	**15**	**35**	**-**	**-**
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	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
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	**6**	**14**	**-**	**-**
PC13. collect, segregate and deposit construction waste into appropriate containers based on their toxicity or hazardous nature	-	-	-	-
PC14. apply ergonomic principles wherever required	-	-	-	-
Follow infection control guidelines as per applicability	**3**	**7**	**-**	**-**
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	-	-	-	-
NOS Total	**30**	**70**	**-**	**-**

National Occupational Standards (NOS) Parameters

NOS Code	CON/N9001
NOS Name	Work according to personal health, safety and environment protocols at construction site
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Generic Safety
NSQF Level	4
Credits	1
Version	8.0
Last Reviewed Date	NA
Next Review Date	19/07/2023
NSQC Clearance Date	19/01/2023

DGT/VSQ/N0102: Employability Skills (60 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
- Career Development & Goal Setting
- 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.   identify employability skills required for jobs in various industries

PC2.   identify and explore learning and employability portals

Constitutional values – Citizenship

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

PC3.   recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.

PC4.   follow environmentally sustainable practices

Becoming a Professional in the 21st Century

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

PC5.   recognize the significance of 21st Century Skills for employment

PC6.   practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life

Basic English Skills

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

PC7. use basic English for everyday conversation in different contexts, in person and over the telephone

PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English

PC9. write short messages, notes, letters, e-mails etc. in English

Career Development & Goal Setting

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

PC10. understand the difference between job and career

PC11. prepare a career development plan with short- and long-term goals, based on aptitude

Communication Skills

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

PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings

PC13. work collaboratively with others in a team

Diversity & Inclusion

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

PC14. communicate and behave appropriately with all genders and PwD

PC15. escalate any issues related to sexual harassment at workplace according to POSH Act

Financial and Legal Literacy

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

PC16. select financial institutions, products and services as per requirement

PC17. carry out offline and online financial transactions, safely and securely

PC18. identify common components of salary and compute income, expenses, taxes, investments etc

PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation

Essential Digital Skills

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

PC20. operate digital devices and carry out basic internet operations securely and safely

PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively

PC22. use basic features of word processor, spreadsheets, and presentations

Entrepreneurship

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

PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research

PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion

PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity

Customer Service

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

PC26. identify different types of customers

PC27. identify and respond to customer requests and needs in a professional manner.

PC28. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

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

PC29. create a professional Curriculum vitae (Résumé)

PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively

PC31. apply to identified job openings using offline /online methods as per requirement

PC32. answer questions politely, with clarity and confidence, during recruitment and selection

PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills and different learning and employability related portals

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 English language for effective verbal (face to face and telephonic) and written communication in formal and informal set up

KU6. importance of career development and setting long- and short-term goals

KU7. about effective communication

KU8. POSH Act

KU9. Gender sensitivity and inclusivity

KU10. different types of financial institutes, products, and services

KU11. how to compute income and expenditure

KU12. importance of maintaining safety and security in offline and online financial transactions

KU13. different legal rights and laws

KU14. different types of digital devices and the procedure to operate them safely and securely

KU15. how to create and operate an e- mail account and use applications such as word processors, spreadsheets etc.

KU16. how to identify business opportunities

KU17. types and needs of customers

KU18. how to apply for a job and prepare for an interview

KU19. apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

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

GS1. read and write different types of documents/instructions/correspondence

GS2. communicate effectively using appropriate language in formal and informal settings

GS3. behave politely and appropriately with all

GS4. how to work in a virtual mode

GS5. perform calculations efficiently

GS6. solve problems effectively

GS7. pay attention to details

GS8. manage time efficiently

GS9. maintain hygiene and sanitization to avoid infection

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Introduction to Employability Skills	**1**	**1**	**-**	**-**
PC1. identify employability skills required for jobs in various industries	-	-	-	-
PC2. identify and explore learning and employability portals	-	-	-	-
Constitutional values – Citizenship	**1**	**1**	**-**	**-**
PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
PC4. follow environmentally sustainable practices	-	-	-	-
Becoming a Professional in the 21st Century	**2**	**4**	**-**	**-**
PC5. recognize the significance of 21st Century Skills for employment	-	-	-	-
PC6. practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
Basic English Skills	**2**	**3**	**-**	**-**
PC7. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
PC9. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
Career Development & Goal Setting	**1**	**2**	**-**	**-**

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. understand the difference between job and career	-	-	-	-
PC11. prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-
Communication Skills	**2**	**2**	**-**	**-**
PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
PC13. work collaboratively with others in a team	-	-	-	-
Diversity & Inclusion	**1**	**2**	**-**	**-**
PC14. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC15. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
Financial and Legal Literacy	**2**	**3**	**-**	**-**
PC16. select financial institutions, products and services as per requirement	-	-	-	-
PC17. carry out offline and online financial transactions, safely and securely	-	-	-	-
PC18. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
Essential Digital Skills	**3**	**4**	**-**	**-**
PC20. operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
PC22. use basic features of word processor, spreadsheets, and presentations	-	-	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Entrepreneurship	**2**	**3**	**-**	**-**
PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
Customer Service	**1**	**2**	**-**	**-**
PC26. identify different types of customers	-	-	-	-
PC27. identify and respond to customer requests and needs in a professional manner.	-	-	-	-
PC28. follow appropriate hygiene and grooming standards	-	-	-	-
Getting ready for apprenticeship & Jobs	**2**	**3**	**-**	**-**
PC29. create a professional Curriculum vitae (Résumé)	-	-	-	-
PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC31. apply to identified job openings using offline /online methods as per requirement	-	-	-	-
PC32. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
NOS Total	**20**	**30**	**-**	**-**

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0102
NOS Name	Employability Skills (60 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	4
Credits	2
Version	1.0
Last Reviewed Date	31/08/2023
Next Review Date	31/08/2026
NSQC Clearance Date	31/08/2023

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)/ Element 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/ Element.

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 70%. To pass the Qualification Pack, every trainee should score a minimum of 70% 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.

7. 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.

8. 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.

9. 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 timeframe set by SSC.

10. Minimum duration of Assessment of each QP shall be of 4hrs/trainee.

Minimum Aggregate Passing % at QP Level : 70

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

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N0115.Lay and fix tiles both horizontally and vertically on wall and floor	30	70	-	-	100	40
CON/N0116.Apply grouts and sealants for flooring and cladding works	30	70	-	-	100	20
CON/N8001.Work effectively in a team to deliver desired results at the workplace	30	70	-	-	100	10
CON/N8002.Plan and organize work to meet expected outcomes	30	70	-	-	100	10
CON/N9001.Work according to personal health, safety and environment protocols at construction site	30	70	-	-	100	15
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	0	0	50	5
Total	**170**	**380**	**0**	**0**	**550**	**100**

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Glossary

Sector	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.
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 organisation.
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 (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	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.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	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.
Scope	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.

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