

## QUALIFICATIONS PACK- OCCUPATIONAL STANDARDS FOR PLUMBING

### 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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## Introduction

### Qualifications Pack – Plumber (General)

**SECTOR:** PLUMBING INDUSTRY

**SUB-SECTOR:** Contractors

**OCCUPATION:** Plumbing

**REFERENCE ID:** PSC/Q0104

**ALIGNED TO:** NCO-2004/7136.10

**Plumber (General):** Plumber (General) is an important job role in installation and repair of plumbing fittings and fixtures in 'contractors' segment.

**Brief Job Description:** A Plumber (General) is responsible for installation, minor repair and maintenance of pipes and sanitary fixtures in housing, commercial and institutional setups.

**Personal Attributes:** He should be able to work independently on his assignment. He should be comfortable in performing laborious work. He should be a good listener. He should be good at taking and following instructions. He should be a good team player. He should be result oriented and positive in attitude.

Job Details	Qualifications Pack Code	PSC/Q0104		
	Job Role	Plumber (General)		
	Credits(NVEQF/NVQF/NSQF) [OPTIONAL]	TBD	Version number	0.1
	Sector	Plumbing	Drafted on	15/07/13
	Sub-sector	Contractors	Last reviewed on	30/07/13
	Occupation	Plumbing	Next review date	31/01/14

Job Role	Plumber (General)
Role Description	Responsible for installation, minor repair and maintenance of pipes and sanitary fixtures in domestic, commercial and institutional setups.
NVEQF/NVQF level	3
Minimum Educational Qualifications*	5 <sup>th</sup> (To be revised to 10 <sup>th</sup> post 31 <sup>st</sup> December, 2017)
Maximum Educational Qualifications*	N.A.
Training (Suggested but not mandatory)	On-the-job training.
Experience	In lieu of minimum qualification the employee has worked as a semi-skilled helper for minimum 2 years in the same role.
Applicable National Occupational Standards (NOS)	<b>Compulsory:</b> <ol style="list-style-type: none"> <li>PSC/ N 0101 (<a href="#">Installation of basic sanitary fixtures, fittings, related piping and accessories</a>)</li> <li>PSC/ N 0102 (<a href="#">Repair of basic plumbing systems</a>)</li> <li>PSC/ N 0108 (<a href="#">Coordinating with the senior and other working team</a>)</li> <li>PSC/ N 0109 (<a href="#">Maintain a healthy, safe and secure working environment</a>)</li> </ol> <b>Optional:</b> <ol style="list-style-type: none"> <li>N.A.</li> </ol>
Performance Criteria	As described in the relevant OS units

Definitions

Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses 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.
Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of OS.
Job Role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
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 that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
NOS	NOS are Occupational Standards which apply uniquely in the Indian context.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Qualifications Pack	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification 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.
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 or 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.

Acronyms

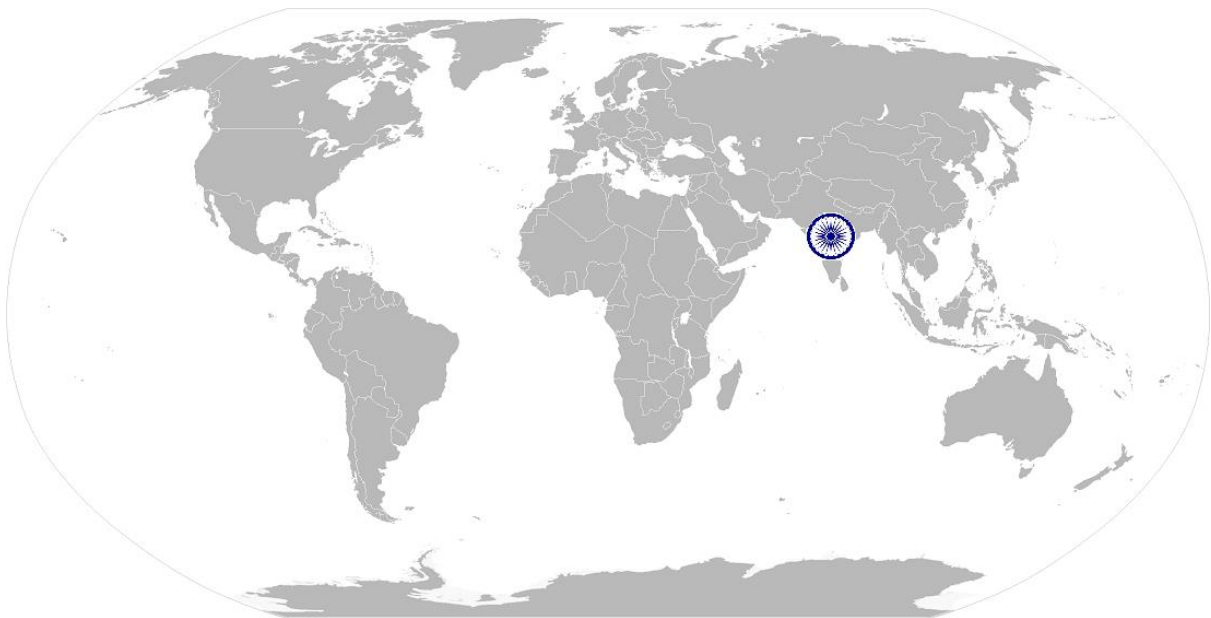
Keywords /Terms	Description
IPSC	Indian Plumbing Skills council
NOS	National Occupational Standards
NSQF	National Skills Qualification Framework
NVEQF	National Vocational Educational Qualification Framework
NVQF	National Vocational Qualification Framework
OS	Occupational Standards
PC	Performance Criteria
QP	Qualification Pack
SSC	Sector Skills Council



PSC/N0101 Installation of basic sanitary fixtures, fittings, related piping and accessories

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# National Occupational Standard



## Overview

This unit is about installation of pipes and sanitary fixtures in housing, commercial and institutional setups.



## PSC/N0101 Installation of basic sanitary fixtures, fittings, related piping and accessories

<b>Unit Code</b>	<b>PSC/N0101</b>
<b>Unit Title (Task)</b>	<b>Installation of basic sanitary fixtures, fittings, related piping and accessories</b>
<b>Description</b>	This OS unit is about installation of pipes and sanitary fixtures in housing, commercial and institutional setups
<b>Scope</b>	<p>This unit/task covers the following:</p> <p>Pre-installation</p> <ul style="list-style-type: none"><li>• pre-installation related activities involving understanding of the task, material preparation, taking measurements and marking the positions</li></ul> <p>Installation</p> <ul style="list-style-type: none"><li>• installation related activities of pipes and sanitary fixtures</li></ul> <p>Post-installation</p> <ul style="list-style-type: none"><li>• basic quality check of the installed fittings and fixtures</li><li>• testing, commissioning and handover activities</li></ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Pre-installation</b>	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. understand the task to be done</p> <p>PC2. assemble pipe sections, tubing and fittings, using couplings, clamps, screws, bolts, caulking tools, or cutting, threading and joining equipment</p> <p>PC3. establish the sequence of pipe installations</p> <p>PC4. plan installation around obstructions such as electrical wiring, etc.</p> <p>PC5. locate and mark the position of pipe installations, connections, passage holes, and fixtures in structures, using measuring instruments such as rulers and levels</p>
<b>Installation</b>	<p>PC6. cut openings in structures to accommodate pipes and pipe fittings, using hand and power tools (if required)</p> <p>PC7. measure, cut, thread, and bend pipe to required angle, using hand and power tools or equipment such as cutting, threading and bending equipment</p> <p>PC8. hang steel supports from ceiling joists to hold pipes in place (if required)</p> <p>PC9. install pipe assemblies, fittings, valves, appliances such as dishwashers and water heaters, and fixtures such as sinks and toilets, using hand and power tools</p>
<b>Productivity &amp; Quality of output</b>	<p>PC10. test the joints and fixtures for proper functioning</p> <p>PC11. clear the work area and waste disposal</p>



## PSC/N0101 Installation of basic sanitary fixtures, fittings, related piping and accessories

Knowledge and Understanding (K)	
<b>A. Organizational Context</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. company's policies on: quality and delivery standards, safety and hazards, integrity, dress code, etc.</p> <p>KA2. importance of the individual's role in the work flow</p> <p>KA3. risk and impact of not following defined procedures/work instructions</p> <p>KA4. how to handover/ takeover of the equipment / work area as per the instructions</p>
<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. different types of materials (CI/GI/PVC pipes, etc.), basic sanitary fittings (valves, clamps, elbows, etc.) and fixtures (showers, taps, basins, etc.)</p> <p>KB2. techniques related to cutting, bending and joining of fittings and fixtures</p> <p>KB3. various types of defects such as leakages, improper alignment, etc.</p> <p>KB4. basic plumbing terminology</p> <p>KB5. relevant hand and power tools such as wrenches, plier, screwdriver, power drill, pipe cutter, crimping tool, pipe bender, threading tool, hacksaw, metal file,, etc.</p> <p>KB6. units of measurement</p> <p>KB7. material disposal procedure, importance of appropriate disposal of material</p>
Skills (S)	
<b>A. Core Skills/ Generic Skills</b>	<b>Communicationskills</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA1. communicate in Hindi / regional language</p>
	<b>Measurement/positioning skills</b>
	<p>SA2. perform simple mathematical calculations</p> <p>SA3. measure and mark positions as per instructions</p>
	<b>Teamwork</b>
	<p>SA4. share work load as required</p> <p>SA5. accept and interpret instructions and requirements correctly</p> <p>SA6. co-ordinate with co-workers and sub-ordinates</p>
<b>B. Professional Skills</b>	<b>Use of tools and machines</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. identify tools, equipment and procedures required for installing piping fixtures and fittings</p> <p>SB2. use following key tools, equipment and consumables for installing piping fixtures and fittings:</p>



## PSC/N0101 Installation of basic sanitary fixtures, fittings, related piping and accessories

	<ul style="list-style-type: none"> <li>• Tape measure</li> <li>• Hack saw</li> <li>• Pipe bender</li> <li>• Screwdrivers</li> <li>• Pliers</li> <li>• Chisels</li> <li>• Allen keys</li> <li>• Files</li> <li>• Hammers</li> <li>• Wrenches</li> <li>• Threading tool</li> <li>• Caulking tool</li> <li>• Pipe cutters</li> <li>• 2ft level</li> <li>• Step ladder</li> <li>• Safety, Gloves/goggles/ear plugs</li> </ul>
	SB3. operate, maintain and repair tools
	<b>Installation techniques</b>
	SB4. carry out pre-installation preparation as per requirement SB5. align and join pipes and fixtures as per requirement SB6. stack and store materials and equipment appropriately at the task site SB7. test installed fittings and fixtures



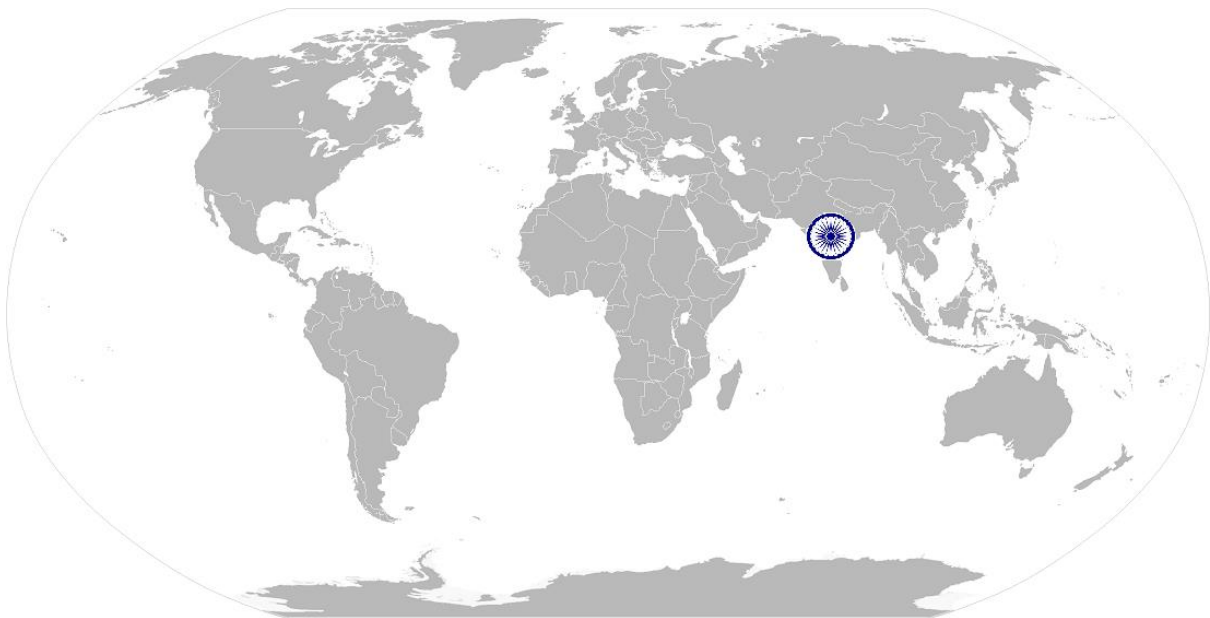




**PSC/N0101 Installation of basic sanitary fixtures, fittings, related piping and accessories**

**NOS Version Control**

NOS Code	PSC /N0101		
Credits(NVEQF/NVQF/NSQF) [OPTIONAL]	TBD	Version number	0.1
Industry	Plumbing	Drafted on	15/07/13
Industry Sub-sector	Contractors	Last reviewed on	30/07/13
		Next review date	31/01/14

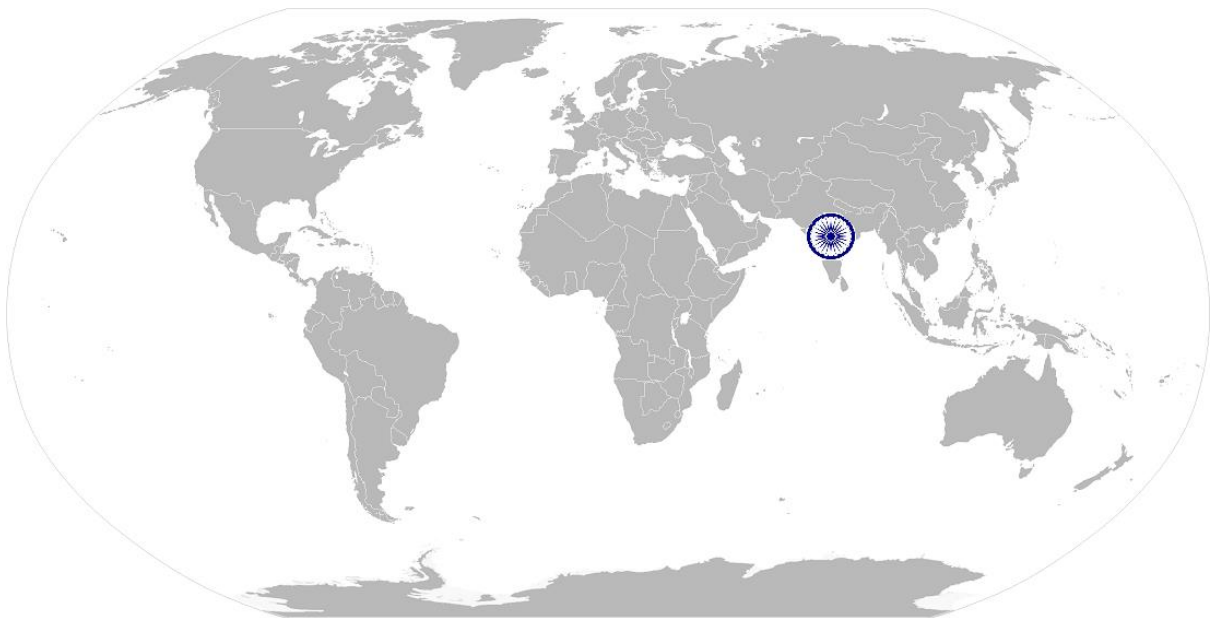




PSC/N0102 Repair of basic plumbing systems

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# National Occupational Standard



## Overview

This unit is about repair of pipes and sanitary fixtures in housing, commercial and institutional setups.



## PSC/N0102 Repair of basic plumbing systems

<b>Unit Code</b>	<b>PSC/N0102</b>
<b>Unit Title (Task)</b>	<b>Repair of basic plumbing systems</b>
<b>Description</b>	This OS unit is about repair of pipes and sanitary fixtures in housing, commercial and institutional setups
<b>Scope</b>	<p>This unit/task covers the following:</p> <p>Diagnosis and Repair</p> <ul style="list-style-type: none"> <li>diagnosis related activities like understanding the installed system, basic inspection and identification of the fault in the system</li> <li>repair related activities like replacement etc. with minimal damage to other systems</li> </ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Diagnosis</b>	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. understand the installed plumbing system</p> <p>PC2. identify the problem/fault in the system and its cause</p> <p>PC3. establish the sequence of repair</p> <p>PC4. assemble fittings, fixtures and tools required for the task</p>
<b>Repair</b>	<p>PC5. locate and mark the position of the component to be replaced/repared, using measuring instruments such as rulers and levels</p> <p>PC6. cut openings in structures to remove defected pipes and pipe fittings, using hand and power tools</p> <p>PC7. measure, cut, thread, and bend pipes to required angle, using hand and power tools or equipment such as cutting, threading and bending equipment</p> <p>PC8. replace with new pipe assemblies, fittings, valves, appliances such as dishwashers and water heaters, and fixtures such as sinks and toilets, using hand and power tools</p> <p>PC9. test the joints and fixtures for proper functioning</p> <p>PC10. clear the work area and waste disposal</p>
<b>Quality of output</b>	<p>PC11. deliver the task in time</p> <p>PC12. achieve quality finishing in repair of sanitary fixtures and fittings</p> <p>PC13. ensure minimal wastage of material</p> <p>PC14. ensure minimal damage to other systems</p>
<b>Knowledge and Understanding (K)</b>	



## PSC/N0102 Repair of basic plumbing systems

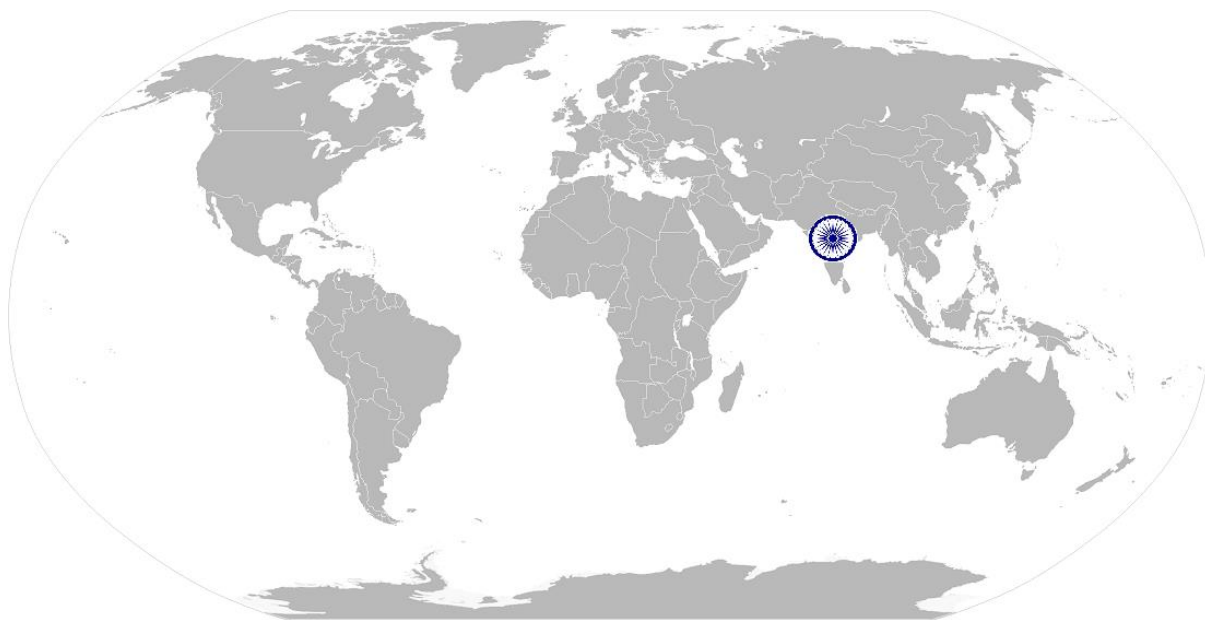
<b>A. Organizational Context</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. company's policies on: quality and delivery standards, safety and hazards, integrity, dress code, etc.</p> <p>KA2. risk and impact of not following defined procedures/work instructions</p> <p>KA3. how to handover/ takeover of the equipment / work area as per the instructions</p>
<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. different types of materials (CI/GI/PVC pipes, etc.), basic sanitary fittings (valves, clamps, elbows, etc.) and fixtures (showers, taps, basins, etc.)</p> <p>KB2. techniques related to cutting, bending and joining of fittings and fixtures</p> <p>KB3. various types of defects such as leakages, improper alignment, etc.</p> <p>KB4. basic plumbing terminology</p> <p>KB5. relevant hand and power tools such as wrenches, pliers, screwdriver, power drill, pipe cutter, crimping tool, pipe bender, threading tool, hacksaw, metal file,, etc.</p> <p>KB6. units of measurement</p> <p>KB7. material disposal procedure, importance of appropriate disposal of material</p>
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Communication skills</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA1. communicate in Hindi / regional language</p>
	<b>Measurement/positioning skills</b>
	<p>SA2. perform simple mathematical calculations</p> <p>SA3. measure and mark positions as per instructions</p>
	<b>Teamwork</b>
	<p>SA4. share work load as required and co-ordinate with others</p> <p>SA5. accept and interpret instructions and requirements correctly</p>
<b>B. Professional Skills</b>	<b>Use of tools and machines</b>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. use relevant tools, equipment and consumables for repair and maintenance of piping fixtures and fittings</p> <p>SB2. operate, maintain and repair tools</p>
	<b>Repair and maintenance techniques</b>
	<p>SB3. carry out diagnosis and preparatory work as per requirement</p> <p>SB4. replace pipes and fixtures so as to rectify the system</p> <p>SB5. stack and store materials and equipment appropriately at the task site</p> <p>SB6. test repaired fittings and fixtures</p>



**PSC/N0102 Repair of basic plumbing systems**

**NOS Version Control**

NOS Code	PSC/N0102		
Credits(NVEQF/NVQF/NSQF) [OPTIONAL]	TBD	Version number	0.1
Industry	Plumbing	Drafted on	15/07/13
Industry Sub-sector	Contractors	Last reviewed on	30/07/13
		Next review date	31/01/14

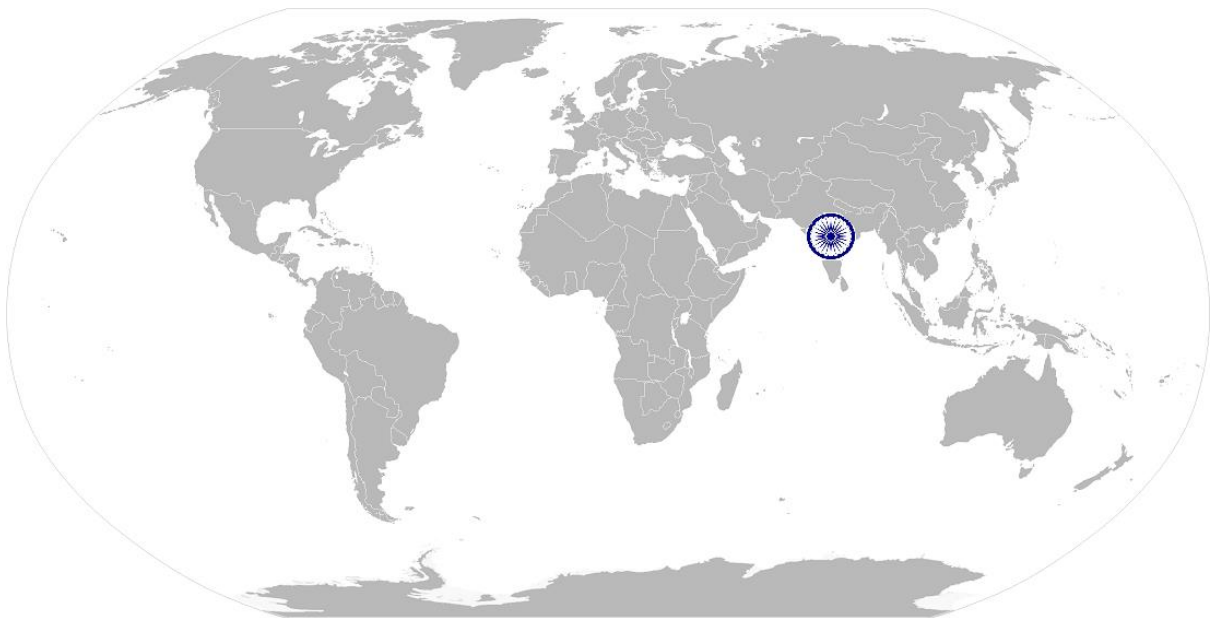




PSC/N0108 Coordinating with the senior and other working team

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# National Occupational Standard



## Overview

This unit is about team work and level of communication with colleagues or clients. It determines the ability to work as a team member, share work and multi-task in order to achieve the deliverables on schedule.



## PSC/N0108 Coordinating with the senior and other working team

National Occupational Standard	<b>Unit Code</b>	<b>PSC/N0108</b>
	<b>Unit Title (Task)</b>	<b>Coordinating with the senior and other working team</b>
	<b>Description</b>	This OS unit is about communicating with colleagues and seniors in order to achieve smooth and hazard free work flow
	<b>Scope</b>	<p>This unit/task covers the following:</p> <p>Interact with senior</p> <ul style="list-style-type: none"> <li>receive work instructions, discuss task status and receive feedback</li> </ul> <p>Interact with colleagues within and outside the team</p> <ul style="list-style-type: none"> <li>communicate and discuss work flow, problems faced, possible solutions and pass on the learning within and outside the team</li> </ul>
	<b>Performance Criteria(PC) w.r.t. the Scope</b>	
	<b>Element</b>	<b>Performance Criteria</b>
	<b>Interaction with senior</b>	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. receive work instructions and raw materials from reporting senior</p> <p>PC2. communicate to reporting senior about task status, repairs and maintenance of tools and equipment as required</p> <p>PC3. communicate any potential hazards and expected process disruptions</p> <p>PC4. handover completed task to reporting senior</p> <p>PC5. receive feedback from reporting senior</p> <p>PC6. report any anticipated reasons for delays</p>
	<b>Interact with colleagues within and outside the team</b>	<p>PC7. work as a team with colleagues and share work as per the work load and skills</p> <p>PC8. work with colleagues of other teams</p> <p>PC9. communicate and discuss work flow related difficulties in order to find solution with mutual agreement</p> <p>PC10. taking instructions from the reporting senior</p> <p>PC11. report problem/incident etc.</p> <p>PC12. put team over individual goals</p> <p>PC13. resolve conflicts</p>
	<b>Knowledge and Understanding (K)</b>	
	<b>A. Organizational Context</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. company's policies on: preferred language of communication, quality delivery standards and personnel management</p> <p>KA2. reporting structure</p>





**PSC/N0108 Coordinating with the senior and other working team**

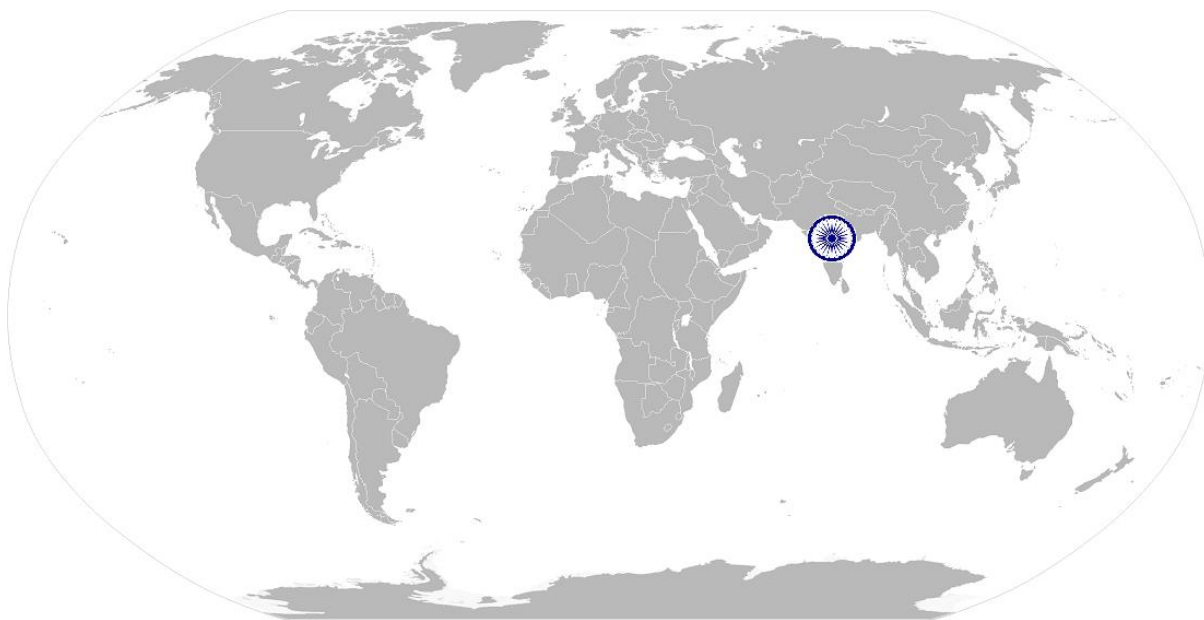
<b>B. Technical Knowledge</b>	The user/individual on the job needs to know and understand: KB1. effective ways of communication KB2. building team co-ordination
<b>Skills (S)</b>	
<b>A. Core Skills/ Generic Skills</b>	<b>Communication skills</b>
	The user/individual on the job needs to know and understand how to: SA1. communicate in Hindi / regional language
	<b>Teamwork</b>
	SA2. share work load as required SA3. accept and interpret instructions and requirements correctly SA4. co-ordinate with co-workers and sub-ordinates
	<b>B. Professional Skills</b>
	<b>Decision making</b>
	The user/individual on the job needs to know and understand: SB1. how to spot and communicate potential areas of disruptions to work process and report the same SB2. when to report to senior and when to deal with a colleague individually, depending on the type of concern
	<b>Reflective thinking</b>
	SB3. improve work processes by interacting with others and adopting best practices



PSC/N0108 Coordinating with the senior and other working team

## NOS Version Control

NOS Code	PSC/N0108		
Credits(NVEQF/NVQF/NSQF) [OPTIONAL]	TBD	Version number	0.1
Industry	Plumbing	Drafted on	15/07/13
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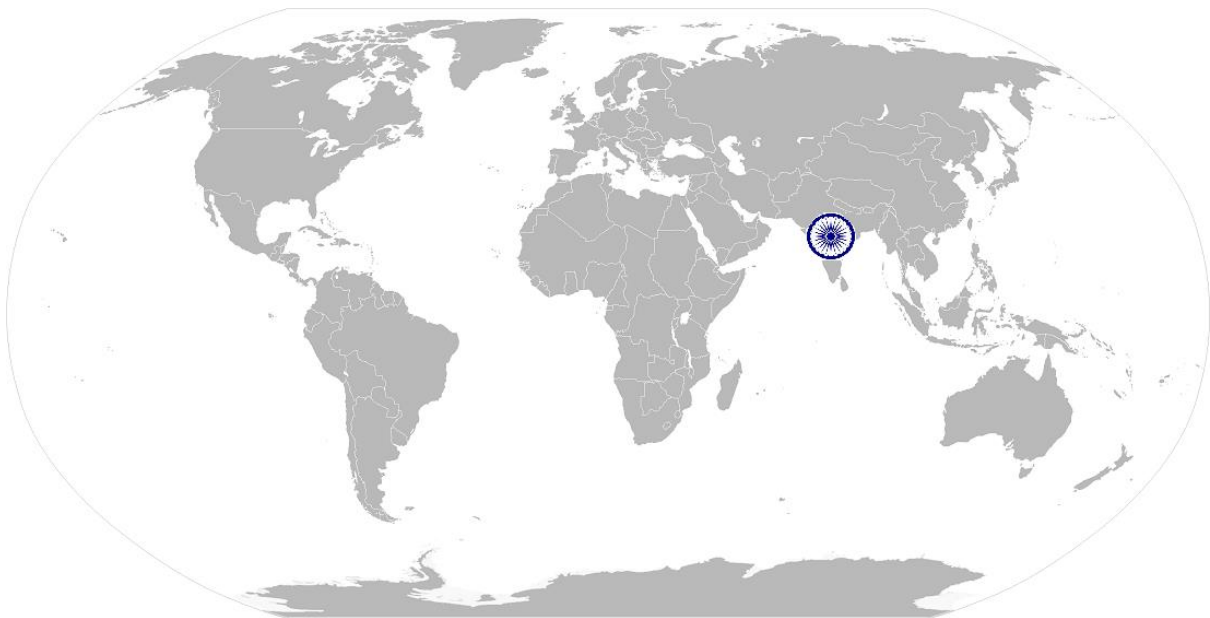




PSC/N0109 Maintain a healthy, safe and secure working environment

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# National Occupational Standard



## Overview

This unit is about being aware of, communicating and taking steps towards minimizing potential hazards and dangers of accidents on the job and maintaining occupational health and safety.



## PSC/N0109 Maintain a healthy, safe and secure working environment

<b>Unit Code</b>	<b>PSC/N0109</b>
<b>Unit Title (Task)</b>	<b>Maintain a healthy, safe and secure working environment</b>
<b>Description</b>	This OS unit is about monitoring your working environment and making sure it meets requirements for health and safety
<b>Scope</b>	<p>This unit/task covers the following:</p> <p>Communicate to reporting senior about</p> <ul style="list-style-type: none"> <li>process flow improvements that can reduce anticipated or repetitive hazards</li> <li>mishandling of tools and equipment</li> <li>electrical or any other problem at the construction site that could result in accident</li> </ul>
<b>Performance Criteria(PC) w.r.t. the Scope</b>	
<b>Element</b>	<b>Performance Criteria</b>
<b>Communicating potential accident points</b>	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. to avoid accidents related to use of sharp tools and equipment</p> <p>PC2. attend and actively participate in the health and safety campaigns organized by the company or any other authority</p>
<b>Using safety gear and following healthy practices</b>	<p>PC3. use or wear safety gear (helmet, gloves, goggles, safety shoes, ear plugs, etc.) as per the rules of the company</p> <p>PC4. attend fire drills or any other safety drills organized by the company or any other authority</p> <p>PC5. learn first-aid procedure</p> <p>PC6. use insect repellents and safe drinking water</p> <p>PC7. use site toilets and follow other hygienic practices</p> <p>PC8. understand the evacuation and emergency procedures</p>
<b>Knowledge and Understanding (K)</b>	
<b>A. Organizational Context</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. company's policy on: safety and hazards and personnel management</p> <p>KA2. reporting structure</p>
<b>B. Technical Knowledge</b>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. how to use tools and equipment without suffering any physical harm</p> <p>KB2. first-aid procedure</p> <p>KB3. diseases caused due use of unsafe water, biting of insects and following unhygienic practices</p> <p>KB4. evacuation and emergency procedures</p>



**PSC/N0109 Maintain a healthy, safe and secure working environment**

Skills (S)	
<b>A. Core Skills/ Generic Skills</b>	<b>Communication skills</b>
	The user/individual on the job needs to know and understand how to: SA1. effectively communicate the danger
	<b>Organising skills</b>
	SA2. keep all the tools in an organised manner so as to avoid accidents SA3. keep the work environment safe and clean
<b>B. Professional Skills</b>	<b>Decision making</b>
	The user/individual on the job needs to know and understand how to: SB1. report potential sources of danger SB2. follow prescribed procedure in the event of an accident SB3. wear appropriate safety gear to avoid an accident
	<b>Reflective thinking</b>
	SB4. learn from past mistakes regarding use of hazardous tools and equipment

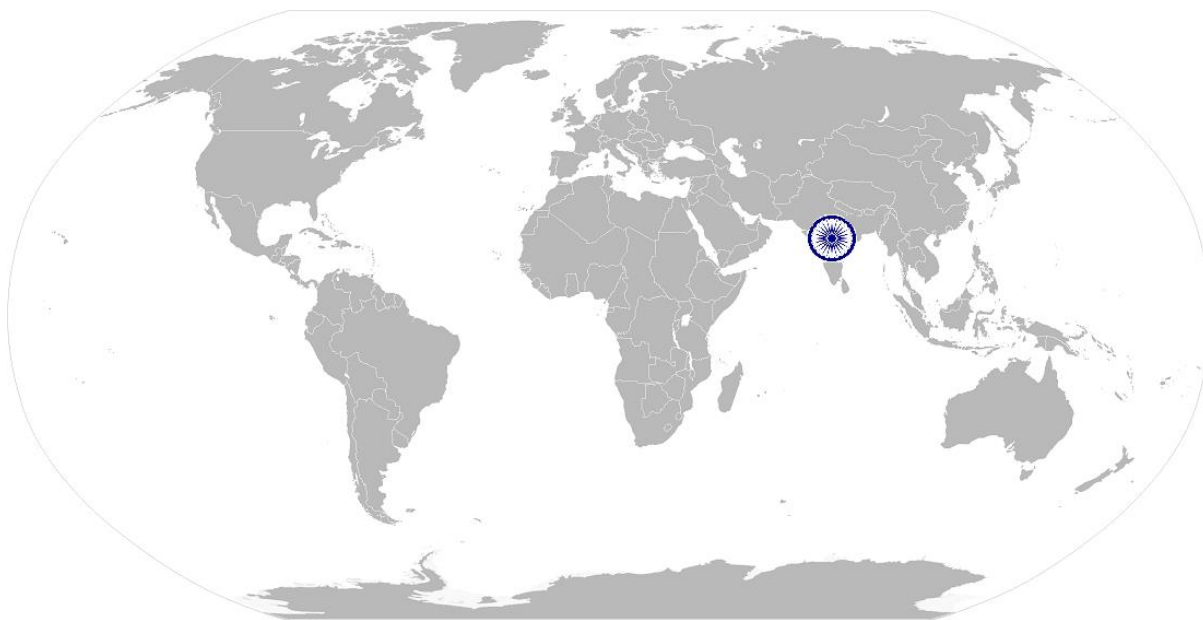




PSC/N0109 Maintain a healthy, safe and secure working environment

## NOS Version Control

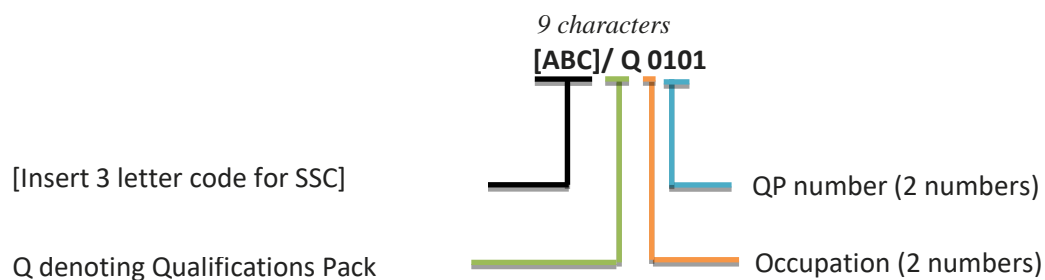
NOS Code	PSC /N0109		
Credits(NVEQF/NVQF/NSQF) [OPTIONAL]	TBD	Version number	0.1
Industry	Plumbing	Drafted on	15/07/13
Industry Sub-sector	Contractors	Last reviewed on	30/07/13
		Next review date	31/01/14



## Annexure

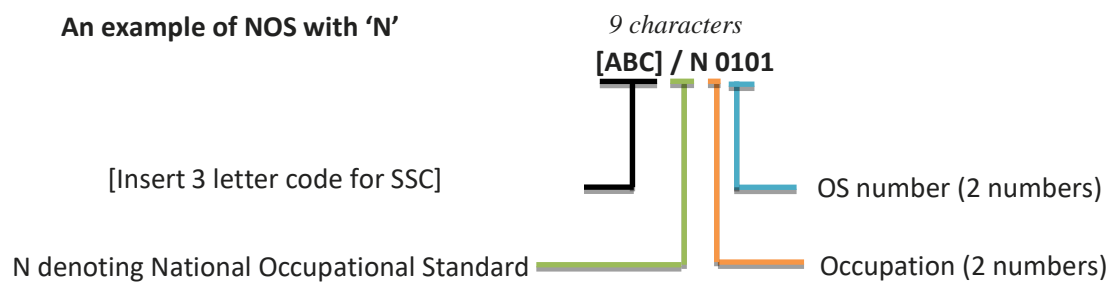
### Nomenclature for QP and NOS

#### Qualifications Pack



#### Occupational Standard

##### An example of NOS with 'N'





The following acronyms/codes have been used in the nomenclature above:

Sub-sector	Range of Occupation numbers
<b>Contractors</b>	01-10
<b>Consultants</b>	11-20
<b>Manufacturers</b>	21-30

Sequence	Description	Example
<b>Three letters</b>	Industry name	PSC
<b>Slash</b>	/	/
<b>Next letter</b>	Whether QP or NOS	N
<b>Next two numbers</b>	Occupation code	01
<b>Next two numbers</b>	OS number	01

## ASSESSMENT CRITERIA

<b>Job Role: Plumber (General)</b> <b>Qualification Pack: PSC/Q0104</b> <b>Sector Skill Council :Plumbing</b>
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### Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5. To pass the Qualification Pack, every trainee should score a minimum of 40% in every NOS and 50% aggregate.
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent

				Marks Allocation	
		Total Mark (400 MARKS)	Out Of	Theory	Skills Practical
1. PSC/ N 0101 Installation of basic sanitary fixtures, fittings, related piping and accessories	PC1. understand the task to be done	100	5	2	3
	PC2. assemble pipe sections, tubing and fittings, using couplings, clamps, screws, bolts, caulking tools, or cutting, threading and joining equipment		10	3	7
	PC3. establish the sequence of pipe installations		10	3	7
	PC4. Plan installation around obstructions such as electrical wiring, etc.		10	3	7
	PC5. locate and mark the position of pipe installations, connections, passage holes, and fixtures in structures, using measuring instruments such as rulers and levels		10	3	7
	PC6. cut openings in structures to accommodate pipes and pipe fittings, using hand and power tools (if required)		10	3	7
	PC7. measure, cut, thread, and bend pipe to required angle, using hand and power tools or equipment such as cutting, threading and bending equipment		10	3	7

	PC8. hang steel supports from ceiling joists to hold pipes in place (if required)		10	3	7
	PC9. install pipe assemblies, fittings, valves, appliances such as dishwashers and water heaters, and fixtures such as sinks and toilets, using hand and power tools.		10	3	7
	PC10. test the joints and fixtures for proper functioning		10	2	8
	PC11. clear the work area and waste disposal		5	2	3
	<b>Total</b>		<b>100</b>	<b>30</b>	<b>70</b>
<b>2. PSC/N0102 Repair of basic sanitary fixture, fittings, related piping and accessories</b>	PC1. Understand the installed plumbing system		5	5	3
	PC2. Identify the problem/fault in the system and its cause		5	2	3
	PC3. Establish the sequence of repair		5	2	3
	PC4. Assemble fittings fixtures and tools required for the task		5	1	4
	PC5. Locate and mark the position of the component to be replaced/repared using measuring instruments such as rulers and levels		10	3	7
	PC6. Cut openings in structures to remove the defected pipes and pipe fittings, using hand and power tools		10	3	7
	PC7. Measures, cut, thread and bend pipes to required angle, using hand and power tools or equipment such as cutting, threading and bending equipment		10	3	7
	PC8. Replace with new pipe assemblies, fittings, valves, appliance such as dish washers and water heaters and fixtures such as sinks and toilets, using hand and power tools.		10	3	7
	PC9. Test the joints and fixtures for proper functioning.		10	3	7
	PC10. Clear the work area and waste disposal.		5	2	3
	PC11. Deliver Task in Time		5	1	4
	PC12. Achieve quality finishing in repair of sanitary fixtures and fittings.		10	3	7
	PC13. ensure minimal wastage of material		5	1	4
	PC14. Ensure minimal damage to other system.		5	1	4
	<b>Total</b>		<b>100</b>	<b>30</b>	<b>70</b>

<b>3. PSC/N0108 Coordinating with the senior and other working team</b>	PC1. receive work instructions and discuss the project / design with seniors	<b>100</b>	10	3	7
	PC2. communicate to reporting senior about task status, repairs and maintenance of tools and equipment as required		10	3	7
	PC3. communicate any potential hazards and expected process disruptions		10	3	7
	PC4. Get the work reviewed and handover completed task to reporting seniors.		10	3	7
	PC5. receive feedback from reporting senior		10	3	7
	PC6. report any anticipated reasons for delays.		10	3	7
	PC7. work as a team with colleagues and share work as per the work load and skills		10	3	7
	PC8. work with colleagues of other teams		5	2	3
	PC9. communicate and discuss work flow related difficulties in order to find solution with mutual agreement		10	3	7
	PC10. put team over individual goals		5	1	4
	PC11. resolve conflicts		5	2	3
	<b>Total</b>		<b>100</b>	<b>30</b>	<b>70</b>
<b>4. PSC/N0109 Maintain a healthy, safe and secure working environment</b>	PC1. to avoid accidents related to use of sharp tools and equipment	<b>100</b>	15	5	10
	PC2. attend and actively participate in the health and safety campaigns organized by the company or any other authority		10	3	7
	PC3. use or wear safety gear (helmet, gloves, goggles, safety shoes, ear plugs, etc.) as per the rules of the company		10	3	7
	PC4. attend fire drills or any other safety drills organized by the company or any other authority		15	4	11
	PC5. learn first-aid procedure		15	5	10

	PC6. use insect repellents and safe drinking water		10	3	7
	PC7. use site toilets and follow other hygienic practices		15	4	11
	PC8. use site toilets and follow other hygienic practices		10	3	7
			100	30	70
<b><u>TOTAL</u></b>			<b><u>400</u></b>	120	280
<b><u>Percentage Weightage:</u></b>				<b><u>30%</u></b>	<b><u>70%</u></b>
<b><u>Minimum Pass% to qualify:</u></b>			50% in aggregate and 40% in a NOS		