IT - ITeS SSC NASSCOM

What are National Occupational Standards (NOS)?

➤ NOS describe what individuals need to do, know and understand in order to carry out a particular job role or function

➤ NOS 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

Introduction

Qualifications Pack-Quality Engineer

SECTOR: IT-ITeS

SUB-SECTOR: Engineering and R&D

OCCUPATION: Quality Assurance & Engineering

REFERENCE ID: SSC/Q4801

ALIGNED TO: NCO-2015/2519.0501

Quality Engineer in the IT-ITeS Industry is also known as a QA Engineer.

Brief Job Description: Individuals in this role are responsible for designing and implementing quality assurance initiatives for an organization.They focus on process re-engineering, statistical quality control and other quality initiatives such as Six-Sigma and Kaizen.

Personal Attributes: This job requires good analytical skills in terms of formulation and solution of problems, creativity in design process and attention to detail. Individuals in this job typically work as part of a diverse team of professionals. Communication and interpersonal skills are useful for this field.

Qualifications Pack Code	SSC/Q4801		
Job Role	**Quality Engineer** This job role is applicable in both national and international scenarios		
Credits(NSQF)	TBD	Version number	1.0
Sector	IT-ITeS	Drafted on	30/04/2013
Sub-sector	Engineering and R&D	Last reviewed on	31/03/2017
Occupation	Quality Assurance & Engineering	Next review date	31/03/2018
NSQC Clearance on	20/07/2015		

Job Details

| Job Role	Quality Engineer (QA Engineer)
Role Description	Undertake quality assurance initiatives, process re-engineering, statistical quality control and other quality initiatives.
NSQF level Minimum Educational Qualifications Maximum Educational Qualifications	7 Bachelor's Degree in any Engg. Stream Master's Degree in Engineering/Technology
Training (Suggested but not mandatory)	Certifications/courses/training in TQM, ISO Standards, Lean Six Sigma, ISMS and other quality norms and standards
Minimum Job Entry Age	18 years
Experience	0-2 years of work experience/internship in a related area
Applicable National Occupational Standards (NOS)	**Compulsory:** 1. SSC/N1304 (Contribute to quality assurance of projects) 2. SSC/N0703 (Create documents for knowledge sharing) 3. SSC/N9001 (Manage your work to meet requirements) 4. SSC/N9002 (Work effectively with colleagues) 5. SSC/N9003 (Maintain a healthy, safe and secure working environment) 6. SSC/N9004 (Provide data/information in standard formats) 7. SSC/N9005 (Develop your knowledge, skills and competence) **Optional:** Not Applicable
Performance Criteria	As described in the relevant NOS units

Glossary of Key Terms

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.
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.
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.
Sub-functions	Sub-functions are sub-activities essential to fulfill the achieving the objectives of the function.
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 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.
National Occupational Standards (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(QP)	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 OS unit, which can be denoted with either an '**O**' or 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 the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have

The word "Definitions" appears vertically along the left side of the table.

	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 thespecificknowledge 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.
Helpdesk	Helpdesk is an entity to which the customers will report their IT problems. IT Service Helpdesk Attendant is responsible for managing the helpdesk.

Acronyms

Keywords /Terms	Description
IT-ITeS	Information Technology - Information Technology enabled Services
BPM	Business Process Management
BPO	Business Process Outsourcing
KPO	Knowledge Process Outsourcing
LPO	Legal Process Outsourcing
IPO	Information Process Outsourcing
BCA	Bachelor of Computer Applications
B.Sc.	Bachelor of Science
OS	Occupational Standard(s)
NOS	National Occupational Standard(s)
QP	Qualifications Pack
UGC	University Grants Commission
MHRD	Ministry of Human Resource Development
MoLE	Ministry of Labour and Employment
NVEQF	National Vocational Education Qualifications Framework
NVQF	National Vocational Qualifications Framework
NSQF	National Skill Qualification Framework

National Occupational Standard
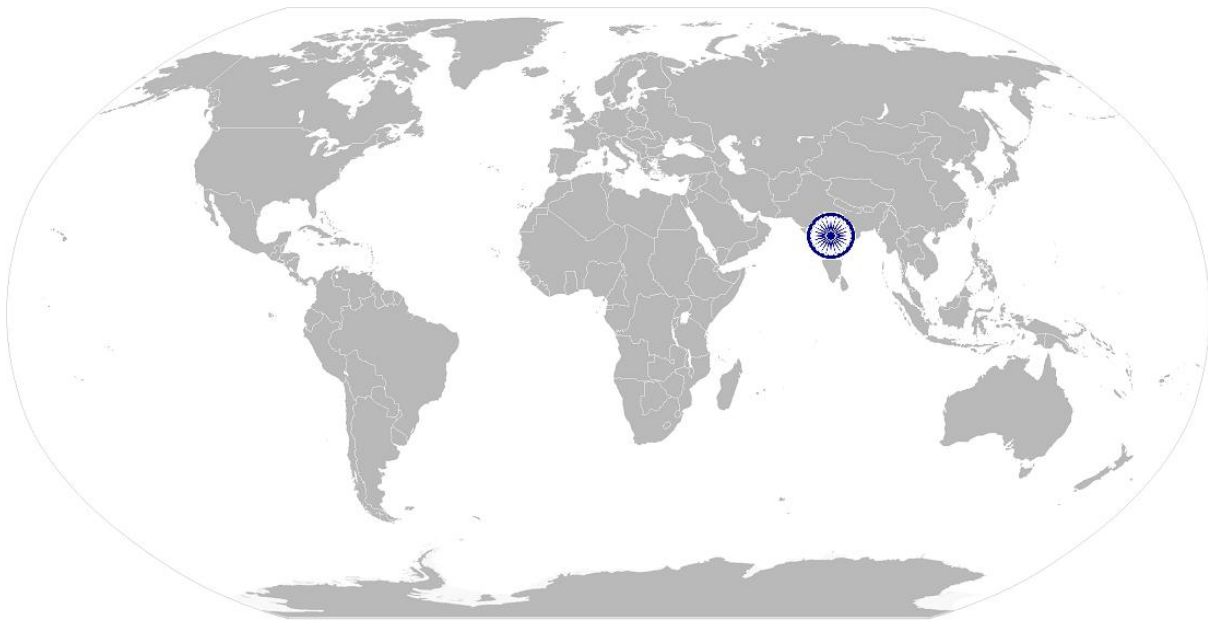
Overview

This unit is about carrying out specified activities in support of the quality assurance of projects.

SSC/N1304Contribute to quality assurance of projects

Unit Code	SSC/N1304
Unit Title (Task)	**Contribute to quality assurance of projects**
Description	This unit is about carrying out specified activities in support of the quality assurance of projects.
Scope	This unit/task covers the following: **Organization's requirements** include: • policies • standards • processes • procedures • approved tools such as MS excel, Visual Basic, etc. • version control • entry-exit criteria • approvals • metrics **Appropriate people**: • line manager • project team • internal auditors • subject matter experts
Performance Criteria (PC) w.r.t. the Scope	
	To be competent, you must be able to: PC1. establish clearly the scope of your role and responsibilities in relation to quality assurance PC2. check that projects comply with your **organization's requirements** during every phase PC3. collect required data/information against key indicators using standard templates and tools PC4. analyse data/information to accurately identify risks to projects PC5. generate reports on checks carried out, data/information collected and risks identified using standard templates and tools with mitigation plan PC6. schedule review meetings at agreed project milestones PC7. provide required information to project management reviewers, internal auditors and technical reviewers on time for review meetings PC8. check that the key actions from review meetings are accurately recorded PC9. monitor project progress to check that key actions are taken on time PC10. obtain advice and guidance from **appropriate people**, where necessary PC11. comply with relevant standards(like CMMi), policies, procedures, guidelines

![IT-ITeS SSC NASSCOM]

NOS
National Occupational Standards

GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT
& ENTREPRENEURSHIP

N·S·D·C
National Skill Development Corporation
Transforming the skill landscape

SSC/N1304Contribute to quality assurance of projects

	and service level agreements (SLAs) when contributing to quality assurance
	PC12. understand the NDA (Non- Disclosure Agreements)signed for projects
	PC13. carry out root cause analysis of process failures in projects to facilitate process improvements
	PC14. identify and share good practice with others to improve productivity
Knowledge and Understanding (K)	

A. Organizational Context (Knowledge of the company/ organization and its processes)	You need to know and understand:
	 KA1. your organization's policies, standards, processes, procedures, guidelines and service level agreements for the quality assurance of projects and your role in applying these
	 KA2. theprinciples of effective quality assurance of projects
	 KA3. objectives and scope of the quality assurance work being undertaken
	 KA4. key indicators for the quality assurance of projects and why projects must comply with these
	 KA5. methods of collecting data/information to quality assure projects and how to apply these
	 KA6. the range of standard tools and templates available for quality assurance of projects and how to use them
	 KA7. the types and purpose of data/information provided to:
	     a. management reviewers
	     b. internal auditors
	     c. technical reviewers
	 KA8. how to record, report and present data/information
	 KA9. your organization's procedures for sharing information/data with others
	 KA10. the importance of providing timely and accurate information to others
	 KA11. how to identify project risks and their potential/actual impact
	 KA12. the purpose of scheduling regular review meetings and how to do this
	 KA13. how to monitor and report on progress
	 KA14. what to do when actions have not been completed on time
	 KA15. the importance of conducting root cause analysis and how to do this
	 KA16. how to conduct trend analysis
	 KA17. how to determine examples good practice
	 KA18. how to carry out unit level analysis of multiple projects
	 KA19. the importance of project commitments to customers
	 KA20. how to review and track improvement plans

B. Technical Knowledge	You need to know and understand: KB1. the methods of collecting data/information for quality assurance and how to apply these KB2. tools such as MS Excel, PowerPoint, etc. KB3. how to analyze data/information and how to use this analysis to identify risks

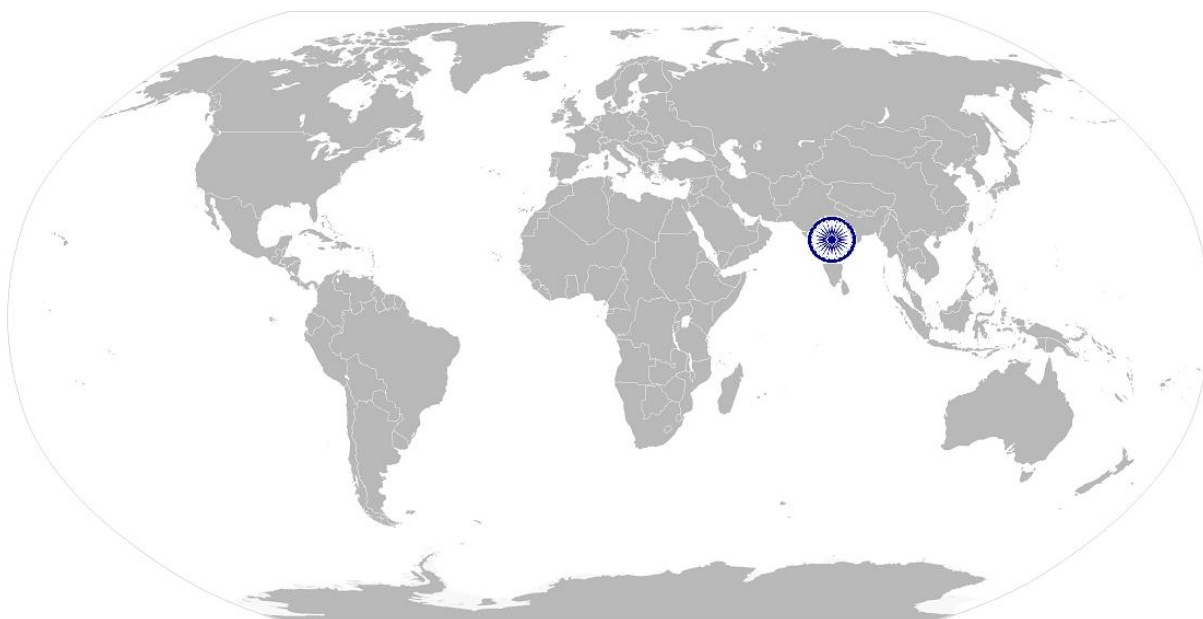**SSC/N1304Contribute to quality assurance of projects**

	to projects
	KB4. how to identify project risks and their potential/actual impact
	KB5. the principles of project management and project lifecycle models
	KB6. different quality tools in your organization and how to use these
	KB7. quality philosophies, principles, systems, methods, tools, standards, organizational and team dynamics, customer expectations and satisfaction, supplier relations and performance, leadership, training, interpersonal relationships, improvement systems, and professional ethics.
	KB8. audit process including types of audits, planning, preparation, execution, reporting results, and follow-up.
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	You need to know and understand how to:
	SA1. communicate with others in writing
	SA2. complete accurate well written work with attention to detail
	Reading Skills
	You need to know and understand how to:
	SA3. follow guidelines/procedures/rules and service level agreements
	Oral Communication (Listening and Speaking skills)
	You need to know and understand how to:
	SA4. ask for clarification and advice from others
	SA5. listen effectively and orally communicate information accurately
B. Professional Skills	**Decision Making**
	You need to know and understand how to:
	SB1. make a decision on a suitable course of action or response
	Plan and Organize
	You need to know and understand how to:
	SB2. plan and organize your work to achieve targets and deadlines
	CustomerCentricity
	You need to know and understand how to:
	SB3. check that your own and/or your peers work meets customer requirements
	SB4. work effectively in a customer facing environment
	SB5. build and maintain positive and effective relationships with customers
	SB6. deliver work on time and free of defects
	SB7. facilitate customer feedback
	Problem Solving
	You need to know and understand how to:
	SB8. apply problem-solving approaches in different situations
	SB9. seek clarification on problems from others

	SB10. refer anomalies to the supervisor
	Analytical Thinking
	You need to know and understand how to:
	SB11. analyze data and activities
	SB12. configure data and disseminate relevant information to others
	Critical Thinking
	You need to know and understand how to:
	SB13. provide opinions on work in a detailed and constructive way
	SB14. apply balanced judgments to different situations
	Attention to Detail
	You need to know and understand how to:
	SB15. check your work is complete and free from errors
	SB16. get your work checked/ reviewed by others
	Team Working
	You need to know and understand how to:
	SB17. work independently and collaboratively
	SB18. work effectively in a team environment
C. Technical Skills	You need to know and understand how to:
	SC1. use information technology effectively to input and/or extract data accurately
	SC2. agree objectives and work requirements
	SC3. store and retrieve information
	SC4. keep up to date with changes, procedures and practices in your role

NOS Code	SSC/N1304		
Credits(NSQF)	TBD	Version number	1.0
Industry	IT-ITeS	Drafted on	30/04/2013
Industry Sub-sector	Engineering and R&D	Last reviewed on	31/01/2015
		Next review date	31/03/2016

National Occupational Standard
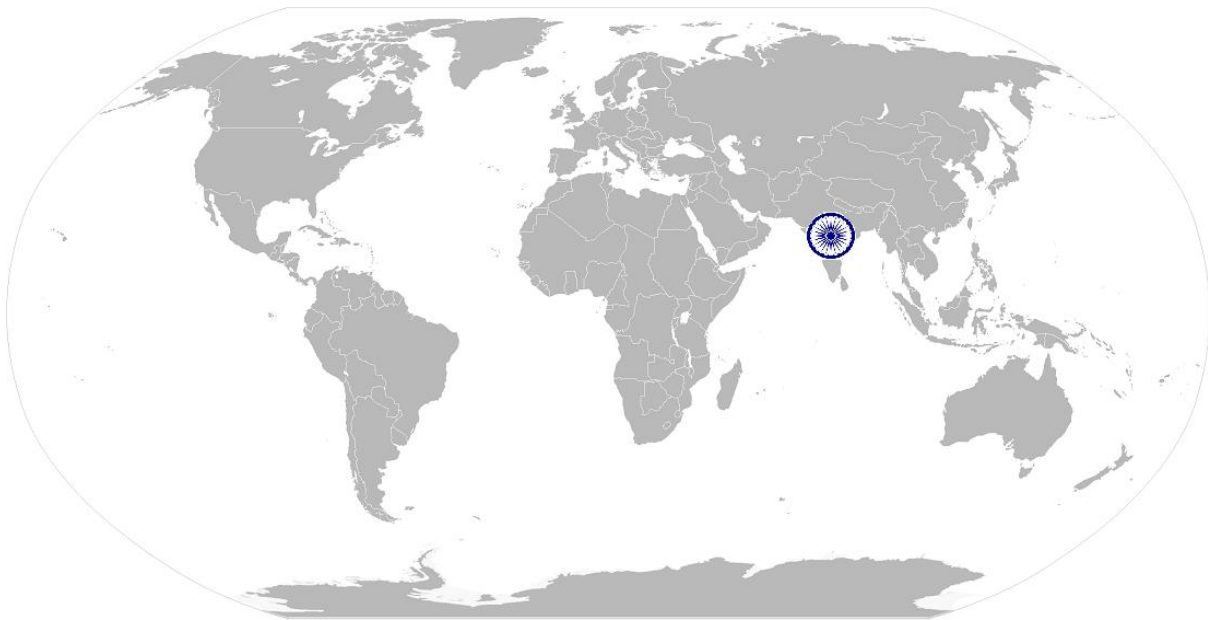
Overview

This unit is about creating documents (such as case studies, best practices, project artifacts, reports, minutes, policies, procedures, work instructions etc.) for sharing knowledge with internal or external stakeholders.

SSC/N0703Create documents for knowledge sharing

| Applicable NOS Unit		
	Unit Code	**SSC/N0703**
	Unit Title **(Task)**	**Create documents for knowledge sharing**
	Description	This unit is about creating documents (such as case studies, best practices, project artifacts, reports, minutes, policies, procedures, work instructions etc.) for sharing knowledge with internal or external stakeholders. This unit is NOT intended to cover technical documents or documents to support the deployment and use of products/applications, which are dealt with in different standards.
	Scope	This unit/task covers the following: **Appropriate people**: • line manager • owner of documents • subject matter experts • shop floor technicians/ operators
	Performance Criteria (PC) w.r.t. the Scope	
		To be competent, you must be able to: PC1. establish with **appropriate people** the purpose, scope, formats and target audience for the documents PC2. access existing documents, language standards, templates and documentation tools from your organization's knowledge base PC3. liaise with **appropriate people** to obtain and verify the information required for the documents PC4. confirm the content and structure of the documents with **appropriate people** PC5. create documents using standard templates and agreed language standards PC6. review documents with **appropriate people** and incorporate their inputs PC7. submit documents for approval by **appropriate people** PC8. publish documents in agreed formats PC9. update your organization's knowledge base with the documents PC10. comply with your organization's policies, procedures and guidelines when creating documents for knowledge sharing
	Knowledge and Understanding (K)	
	A. Organizational Context (Knowledge of the company/ organization and its processes)	You need to know and understand: KA1. your organization's policies, procedures and guidelines for creating documents for knowledge sharing KA2. the purpose and scope of the work to be carried out and the importance of keeping within these boundaries KA3. who to involve when developing documents and their roles and responsibilities KA4. intended audiences for documents

SSC/N0703Create documents for knowledge sharing

	KA5. your organization's knowledge base and how to access and update this
	KA6. the importance of verifying information obtained for documents and how to do this
	KA7. the importance of reviewing documents with others
	KA8. how to use feedback to improve documents
	KA9. your organization's processes and procedures for approving and publishing documents
	KA10. methods and techniques used when working with others
	KA11. tools, templates and language standards available and how to use these
	KA12. the work element for documents created
	KA13. how to convert the work element into meaningful documents by proper abstraction and categories suited to standard templates
B. Technical Knowledge	You need to know and understand: KB1. the purpose and scope of the work to be carried out and the importance of keeping within these boundaries KB2. sources of information and reference materials for creating documents KB3. different styles used in documents, including: • your organization's house style • types and styles of documents • templates KB4. different ways of structuring documents and how to select the best structure for the agreed content KB5. how to check and make corrections to documents for common editorial problems and errors, including: • deviations • factual accuracies • linguistic mistakes • discrepancies • errors • ambiguities in content • formatting KB6. the importance of obtaining approval for documents and who to obtain this from KB7. change management procedures, including version control and approvals KB8. how to use document preparation tools including Word, Visio, PowerPoint, Excel
Skills (S)	
A. Core Skills/	**Writing Skills**
	You need to know and understand how to:

SSC/N0703Create documents for knowledge sharing

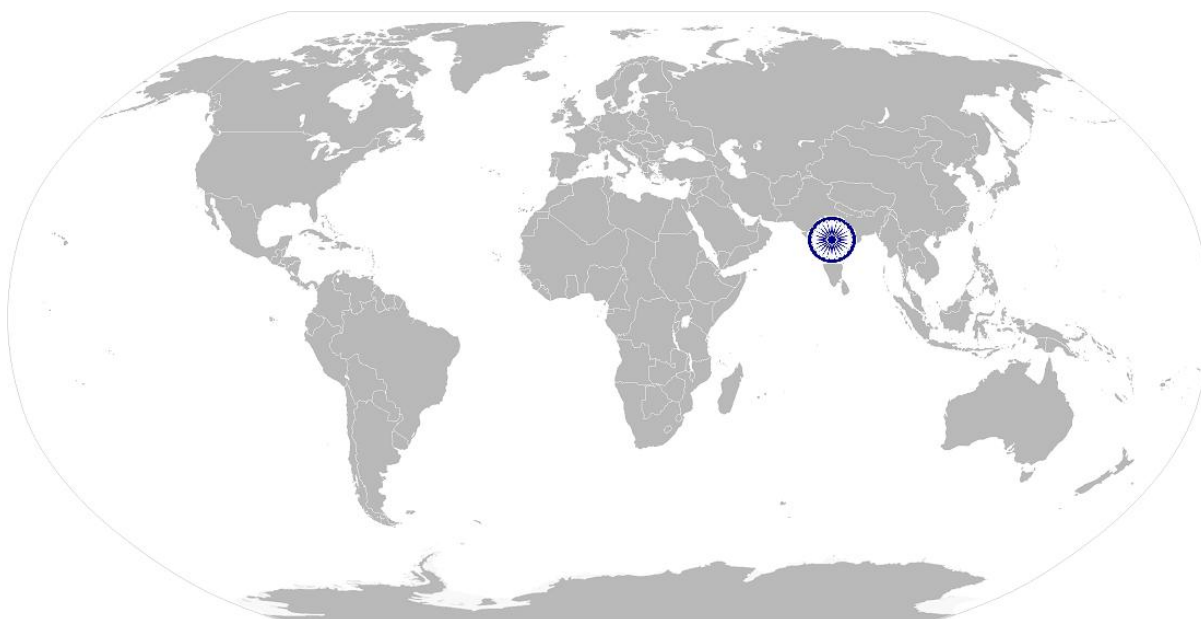| Generic Skills	SA1. complete accurate well written work with attention to detail
	SA2. communicate with others in writing
	Reading Skills
	You need to know and understand how to:
	SA3. follow guidelines, procedures, rules and service level agreements
	Oral Communication (Listening and Speaking skills)
	You need to know and understand how to:
	SA4. listen effectively and orally communicate information accurately
	SA5. ask for clarification and advice from others
B. Professional Skills	**Decision Making**
	You need to know and understand how to:
	SB1. identify anomalies in data
	SB2. make a decision on a suitable course of action
	SB3. time management
	SB4. multi-tasking
	Plan and Organize
	You need to know and understand how to:
	SB5. plan and organize your work to achieve targets and deadlines
	SB6. manage your time effectively
	SB7. handle multiple tasks concurrently
	CustomerCentricity
	You need to know and understand how to:
	SB8. check that your own and/or your peers' work meets customer requirements
	SB9. work effectively in a customer facing environment
	SB10. build and maintain positive and effective relationships with customers
	Problem Solving
	You need to know and understand how to:
	SB11. seek clarification on problems from others
	SB12. apply problem-solving approaches in different situations
	SB13. refer anomalies to the line manager
	Analytical Thinking
	You need to know and understand how to:
	SB14. analyze data and activities
	SB15. configure data and disseminate relevant information to others
	SB16. pass on relevant information to others
	Critical Thinking
	You need to know and understand how to:
	SB17. provide opinions on work in a detailed and constructive way
	SB18. apply balanced judgments to different situations

SSC/N0703Create documents for knowledge sharing

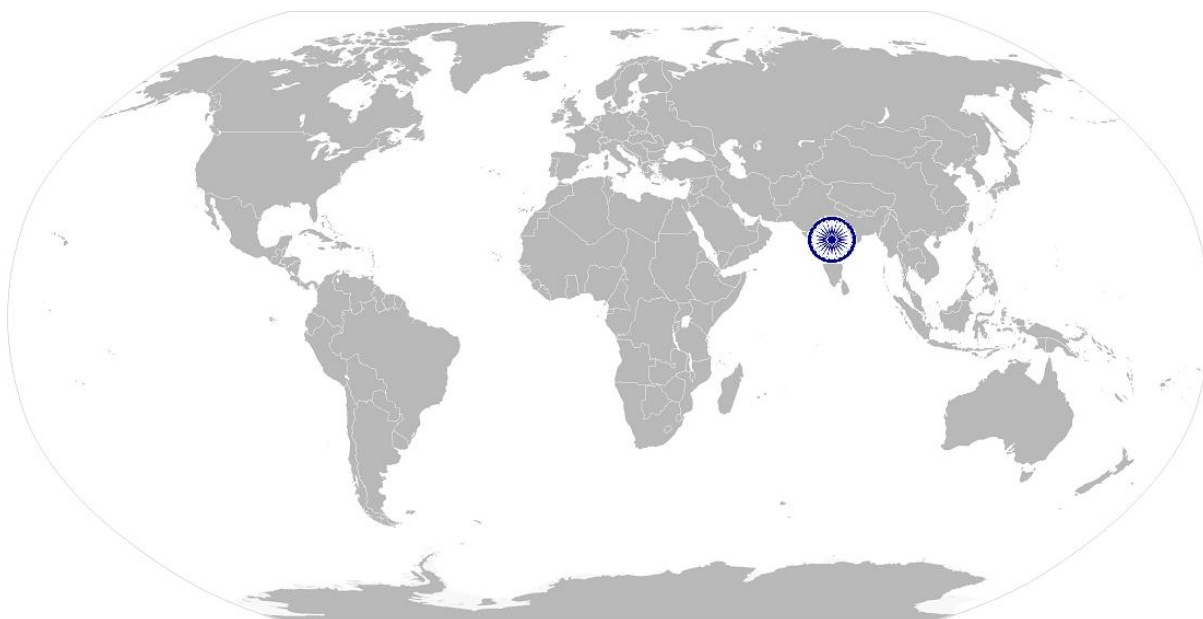|	
	Attention to Detail
	You need to know and understand how to:
	SB19. check your work is complete and free from errors
	SB20. get your work checked/ reviewed by others
	Team Working
	You need to know and understand how to:
	SB21. work independently and collaboratively
	SB22. work effectively in a team environment
	SB23. contribute to the quality of team working
C. Technical Skills	You need to know and understand how to:
	SC1. use information technology effectively to input and/or extract data accurately
	SC2. identify and refer anomalies in data
	SC3. store and retrieve information
	SC4. keep data secure
	SC5. agree objectives and work requirements
	SC6. use coding standards
	SC7. keep up to date with changes, procedures and practices in your role
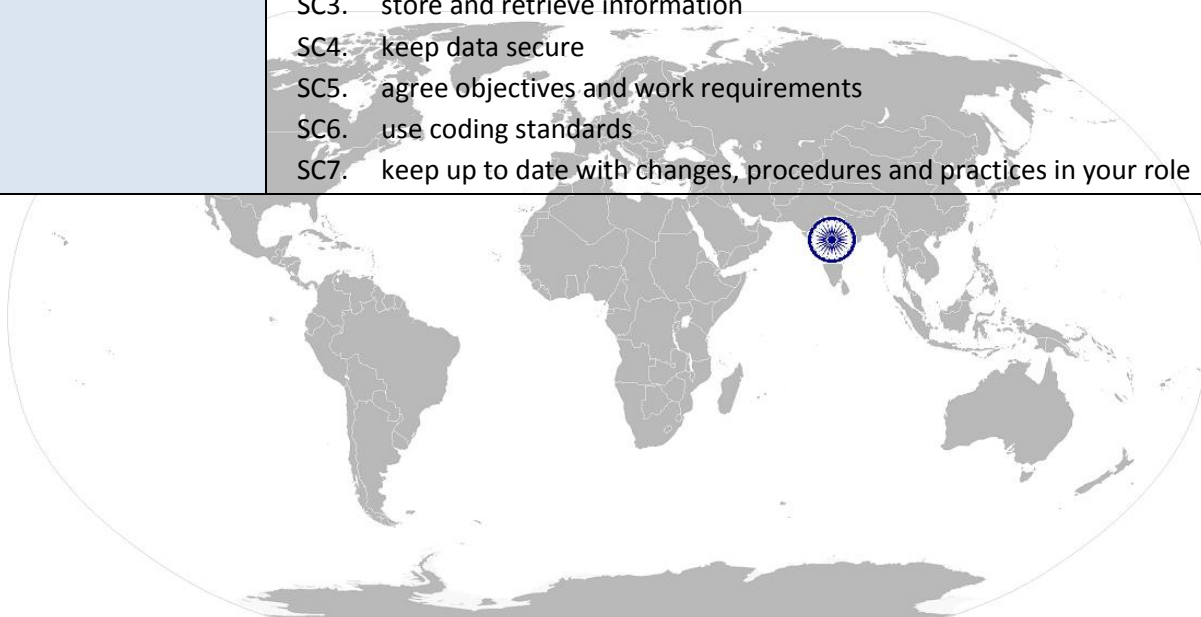
NOS Code	SSC/N0703		
Credits(NSQF)	TBD	Version number	1.0
Industry	IT-ITeS	Drafted on	30/04/2013
Industry Sub-sector	Engineering and R&D	Last reviewed on	31/01/2015
		Next review date	31/03/2016

National Occupational Standard

<u>**Overview**</u>

This unit is about planning and organizing your work in order to complete it to the required standards on time
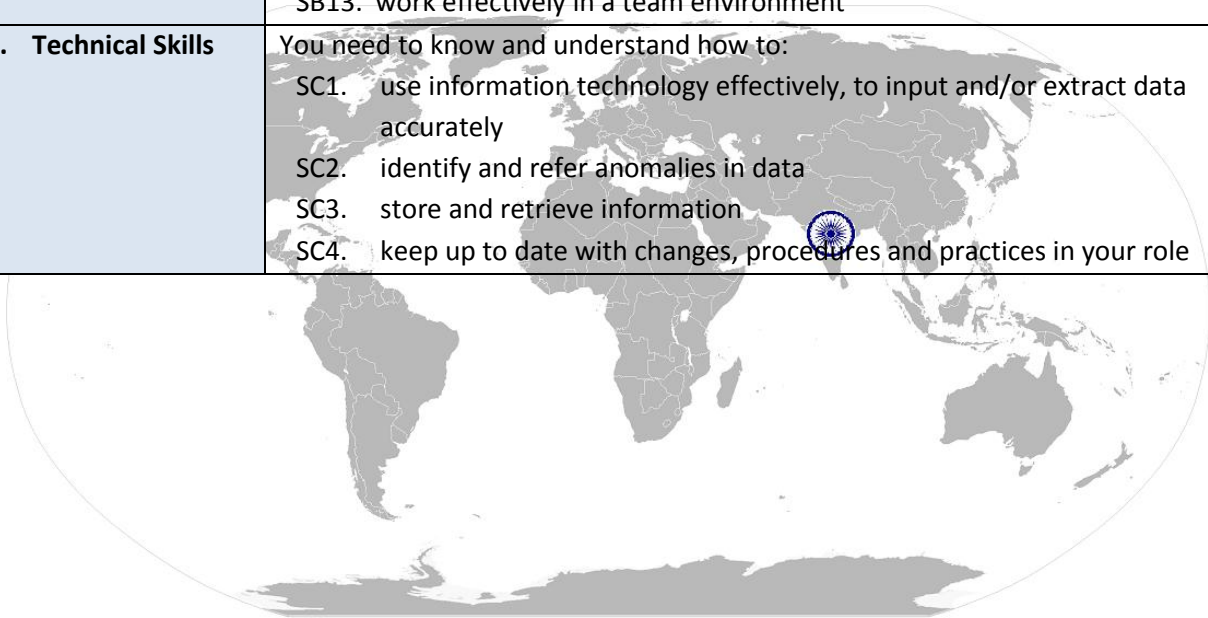
SSC/N9001Manage your work to meet requirements

Unit Code	**SSC/N9001**
Unit Title (Task)	**Manage your work to meet requirements**
Description	This unit is about planning and organizing your work in order to complete it to the required standards on time.
Scope	This unit/task covers the following: **Work requirements**: • activities (what you are required to do) • deliverables (the outputs of your work) • quantity (the volume of work you are expected to complete) • standards (what is acceptable performance, including compliance with Service Level Agreements) • timing (when your work needs to be completed) **Appropriate people**: • line manager • the person requesting the work • members of the team/department • members from other teams/departments **Resources**: • equipment • materials • information

Applicable NOS Unit

Performance Criteria (PC) w.r.t. the Scope	
	To be competent on the job, you must be able to: PC1. establish and agree your **workrequirements** with **appropriate people** PC2. keep your immediate work area clean and tidy PC3. utilize your time effectively PC4. use **resources** correctly and efficiently PC5. treat confidential information correctly PC6. work in line with your organization's policies and procedures PC7. work within the limits of your job role PC8. obtain guidance from **appropriate people**, where necessary PC9. ensure your work meets the agreed **requirements**

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	You need to know and understand: KA1. your organization's policies, procedures and priorities for your area of work and your role and responsibilities in carrying out your work KA2. limits of your responsibilities and when to involve others KA3. your specific work requirements and who these must be agreed with KA4. the importance of having a tidy work area and how to do this KA5. how to prioritize your workload according to urgency and importance and the benefits of this KA6. your organization's policies and procedures for dealing with confidential

SSC/N9001 Manage your work to meet requirements

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	information and the importance of complying with these
	KA7. the purpose of keeping others updated with the progress of your work
	KA8. who to obtain guidance from and the typical circumstances when this may be required
	KA9. the purpose and value of being flexible and adapting work plans to reflect change
B. Technical Knowledge	You need to know and understand:
	KB1. the importance of completing work accurately and how to do this
	KB2. appropriate timescales for completing your work and the implications of not meeting these for you and the organization
	KB3. resources needed for your work and how to obtain and use these
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	You need to know and understand how to:
	SA1. complete accurate work with attention to detail
	Reading Skills
	You need to know and understand how to:
	SA2. read instructions, guidelines, procedures, rules and service level agreements
	Oral Communication (Listening and Speaking skills)
	You need to know and understand how to:
	SA3. ask for clarification and advice from line managers
	SA4. communicate orally with colleagues
B. Professional Skills	**Decision Making**
	You need to know and understand how to:
	SB1. make a decision on a suitable course of action
	Plan and Organize
	You need to know and understand how to:
	SB2. plan and organize your work to achieve targets and deadlines
	SB3. agree objectives and work requirements
	CustomerCentricity
	You need to know and understand how to:
	SB4. deliver consistent and reliable service to customers
	SB5. check that your own work meets customer requirements
	Problem Solving
	You need to know and understand how to:
	SB6. refer anomalies to the line manager
	SB7. seek clarification on problems from others
	Analytical Thinking
	You need to know and understand how to:

SSC/N9001Manage your work to meet requirements

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	SB8. provide relevant information to others
	SB9. analyze needs, requirements and dependencies in order to meet your work requirements
	Critical Thinking
	You need to know and understand how to:
	SB10. apply judgments to different situations
	Attention to Detail
	You need to know and understand how to:
	SB11. check your work is complete and free from errors
	SB12. get your work checked by peers
	Team Working
	You need to know and understand how to:
	SB13. work effectively in a team environment
C. Technical Skills	You need to know and understand how to:
	SC1. use information technology effectively, to input and/or extract data accurately
	SC2. identify and refer anomalies in data
	SC3. store and retrieve information
	SC4. keep up to date with changes, procedures and practices in your role

NOS Code	SSC/N9001		
Credits(NSQF)	TBD	Version number	1.0
Industry	IT-ITeS	Drafted on	30/04/2013
Industry Sub-sector	Engineering and R&D	Last reviewed on	31/01/2015
		Next review date	31/03/2016
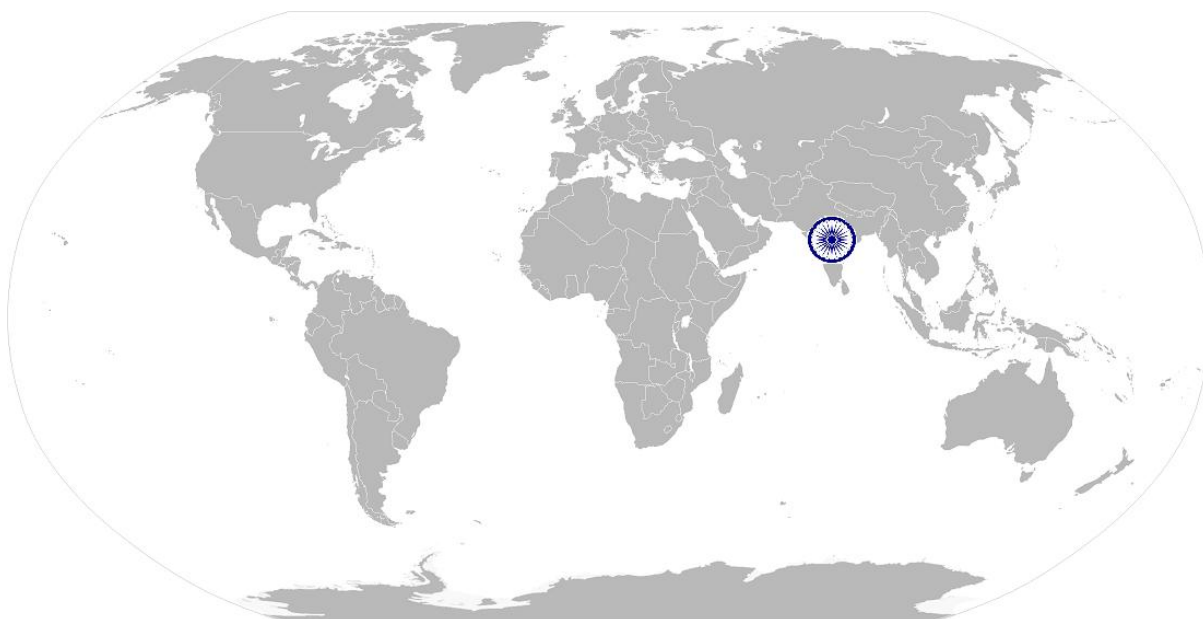
National Occupational Standard
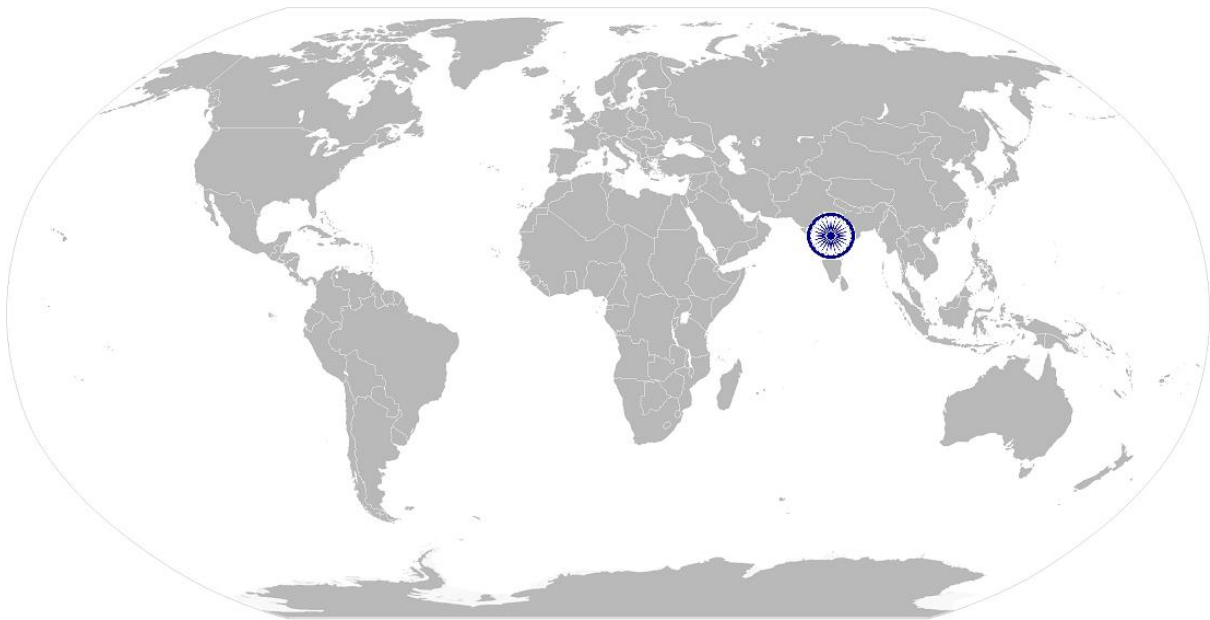
Overview

This unit is about working effectively with colleagues, either in your own work group or in other work groups within your organization.
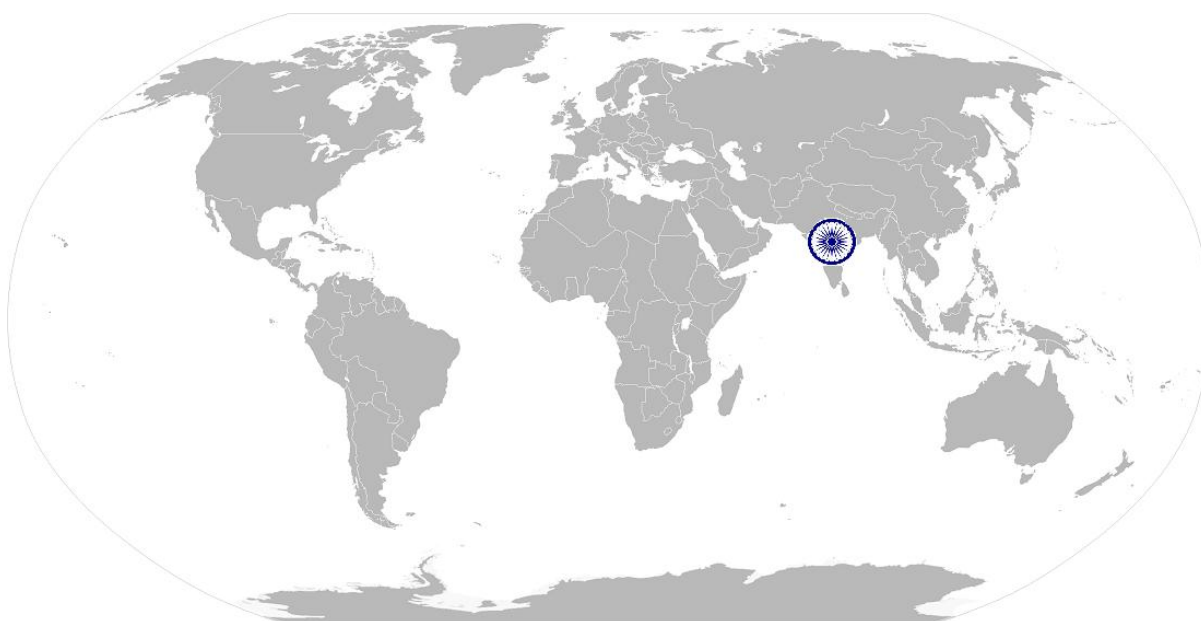
SSC/N9002Work effectively with colleagues

Unit Code	**SSC/N9002**
Unit Title (Task)	**Work effectively with colleagues**
Description	This unit is about working effectively with colleagues, either in your own work group or in other work groups within your organization.
Scope	This unit/task covers the following: **Colleagues**: • line manager • members of your own work group • people in other work groups in your organization **Communicate**: • face-to-face • by telephone • in writing

Applicable NOS Unit

Performance Criteria (PC) w.r.t. the Scope	
	To be competent, you must be able to: PC1. communicate with **colleagues** clearly, concisely and accurately PC2. work with **colleagues** to integrate your work effectively with them PC3. pass on essential information to **colleagues** in line with organizational requirements PC4. work in ways that show respect for **colleagues** PC5. carry out commitments you have made to **colleagues** PC6. let **colleagues** know in good time if you cannot carry out your commitments, explaining the reasons PC7. identify any problems you have working with **colleagues** and take the initiative to solve these problems PC8. follow the organization's policies and procedures for working with **colleagues**

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company/ organization and its processes)	You need to know and understand: KA1. your organization's policies and procedures for working with colleagues and your role and responsibilities in relation to this KA2. the importance of effective communication and establishing good working relationships with colleagues KA3. different methods of communication and the circumstances in which it is appropriate to use these KA4. benefits of developing productive working relationships with colleagues KA5. the importance of creating an environment of trust and mutual respect in an environment where you have no authority over those you are working with KA6. where you do not meet your commitments, the implications this will have on individuals and the organization
B. Technical Knowledge	You need to know and understand: KB1. different types of information that colleagues might need and the importance

SSC/N9002Work effectively with colleagues

		of providing this information when it is required
	KB2.	the importance of understanding problems from your colleague's perspective and how to provide support, where necessary, to resolve these
Skills (S)		
A. Core Skills/ Generic Skills	**Writing Skills**	
	You need to know and understand how to:	
	SA1.	complete accurate, well written work with attention to detail
	SA2.	communicate effectively with colleagues in writing
	Reading Skills	
	You need to know and understand how to:	
	SA3.	read instructions, guidelines, procedures, rules and service level agreements
	Oral Communication (Listening and Speaking skills)	
	You need to know and understand how to:	
	SA4.	listen effectively and orally communicate information accurately
	SA5.	ask for clarification and advice from line managers
B. Professional Skills	**Decision Making**	
	You need to know and understand how to:	
	SB1.	make a decision on a suitable course of action
	Plan and Organize	
	You need to know and understand how to:	
	SB2.	plan and organize your work to achieve targets and deadlines
	CustomerCentricity	
	You need to know and understand how to:	
	SB3.	check that your own work meets customer requirements
	SB4.	deliver consistent and reliable service to customers
	Problem Solving	
	You need to know and understand how to:	
	SB5.	apply problem solving approaches in different situations
	Critical Thinking	
	You need to know and understand how to:	
	SB6.	apply balanced judgments to different situations
	Attention to Detail	
	You need to know and understand how to:	
	SB7.	check your work is complete and free from errors
	SB8.	get your work checked by peers
	Team Working	
	You need to know and understand how to:	
	SB9.	work effectively in a team environment
	SB10.	work effectively with colleagues and other teams
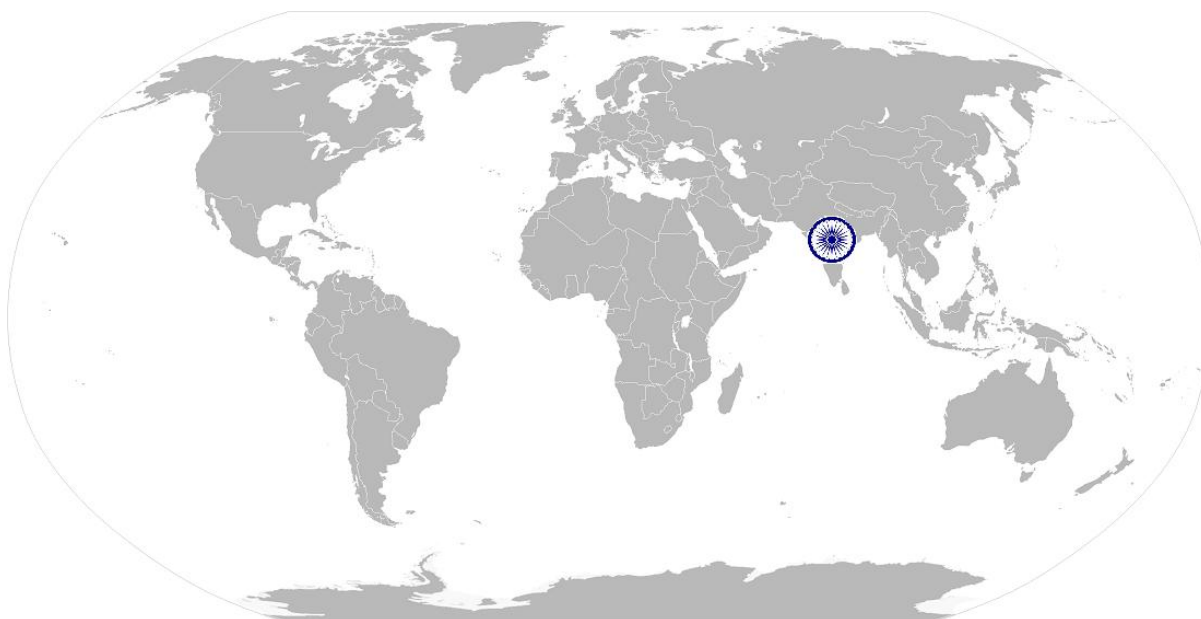
SSC/N9002Work effectively with colleagues

	SB11. treat other cultures with respect
C. Technical Skills	You need to know and understand how to:
	SC1. identify and refer anomalies
	SC2. help reach agreements with colleagues
	SC3. keep up to date with changes, procedures and practices in your role

NOS Code	SSC/N9002		
Credits(NSQF)	TBD	Version number	1.0
Industry	IT-ITeS	Drafted on	30/04/2013
Industry Sub-sector	Engineering and R&D	Last reviewed on	31/01/2015
		Next review date	31/03/2016

National Occupational Standard
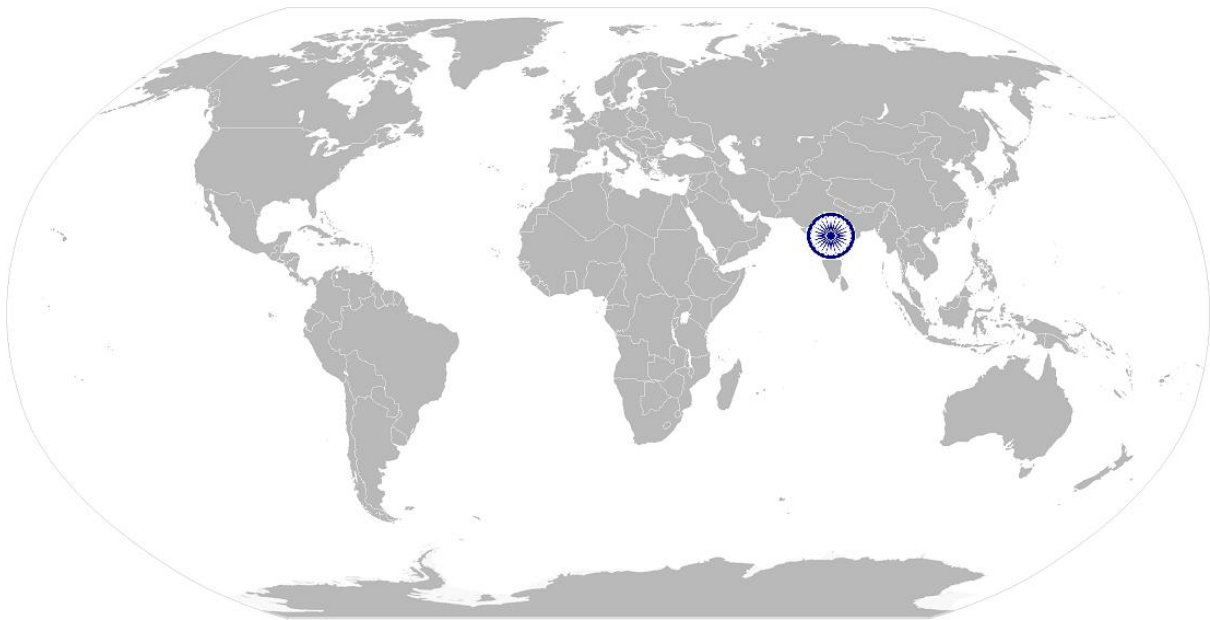
Overview

This unit is about monitoring the working environment and making sure it meets requirements for

SSC/N9003Maintain a healthy, safe and secure working environment

health, safety and security.

SSC/N9003Maintain a healthy, safe and secure working environment
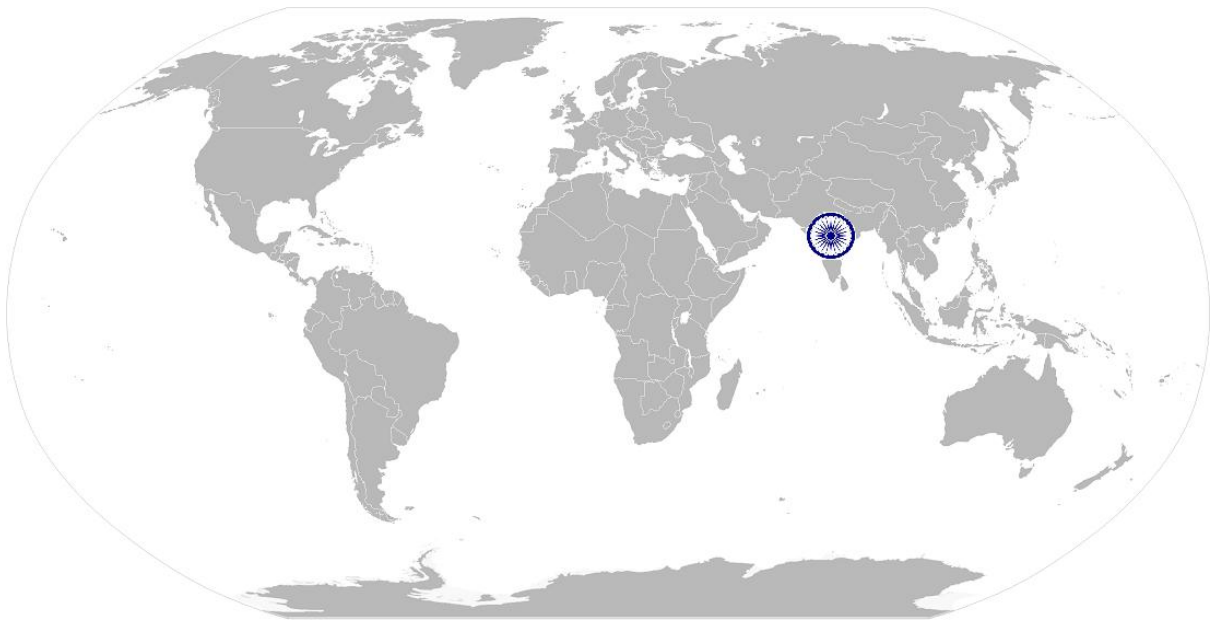
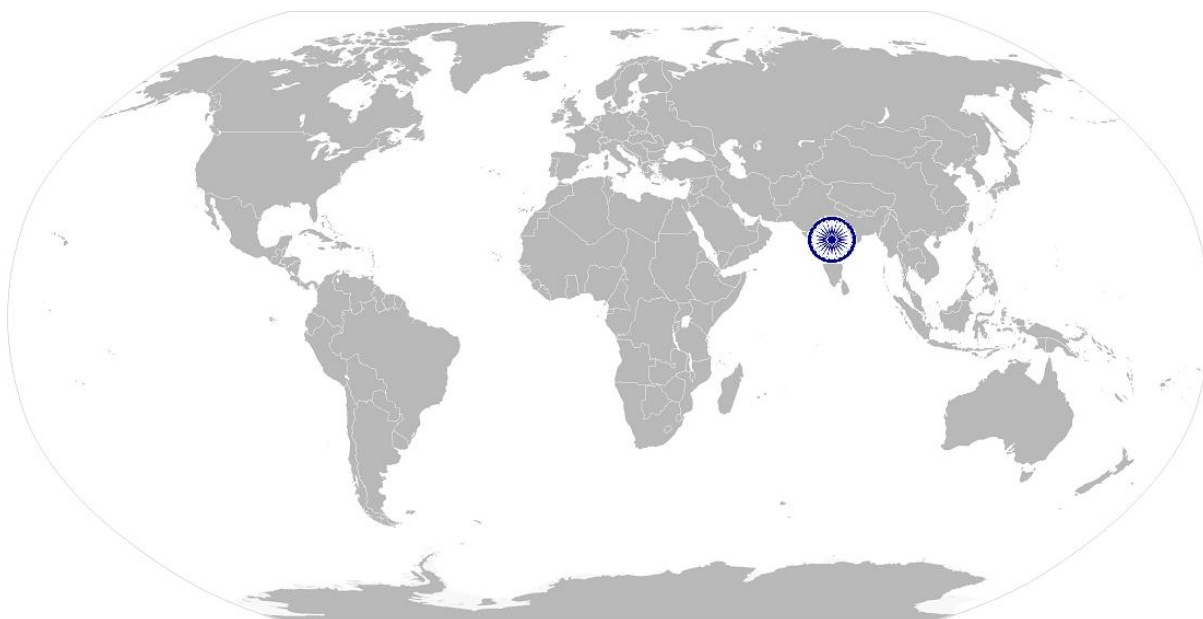| Unit Code	SSC/N9003
Unit Title (Task)	Maintain a healthy, safe and secure working environment
Description	This unit is about monitoring your working environment and making sure it meets requirements for health, safety and security.
Scope	This unit/task covers the following: **Emergency procedures**: - illness - accidents - fires - other reasons to evacuate the premises - breaches of security

Performance Criteria (PC) w.r.t. the Scope

	To be competent, you must be able to:
	PC1. comply with your organization's current health, safety and security policies and procedures
	PC2. report any identified breaches in health, safety, and security policies and procedures to the designated person
	PC3. identify and correct any hazards that you can deal with safely, competently and within the limits of your authority
	PC4. report any hazards that you are not competent to deal with to the relevant person in line with organizational procedures and warn other people who may be affected
	PC5. follow your organization's **emergency procedures** promptly, calmly, and efficiently
	PC6. identify and recommend opportunities for improving health, safety, and security to the designated person
	PC7. complete any health and safety records legibly and accurately

Knowledge and Understanding (K)

A. Organizational Context (Knowledge of the company/ organization and its processes)	You need to know and understand: KA1. legislative requirements and organization's procedures for health, safety and security and your role and responsibilities in relation to this KA2. what is meant by a hazard, including the different types of health and safety hazards that can be found in the workplace KA3. how and when to report hazards KA4. limits of your responsibility for dealing with hazards KA5. your organization's **emergency procedures** for different emergency situations and the importance of following these KA6. the importance of maintaining high standards of health, safety and security KA7. implications that any non-compliance with health, safety and security may have on individuals and the organization
B. Technical	You need to know and understand:

SSC/N9003Maintain a healthy, safe and secure working environment

Knowledge	KB1.	different types of breaches in health, safety and security and how and when to report these
	KB2.	evacuation procedures for workers and visitors
	KB3.	how to summon medical assistance and the emergency services, where necessary
	KB4.	how to use the health, safety and accident reporting procedures and the importance of these
	KB5.	government agencies in the areas of safety, health and security and their norms and services

Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	You need to know and understand how to:
	SA1. complete accurate, well written work with attention to detail
	Reading Skills
	You need to know and understand how to:
	SA2. read instructions, guidelines, procedures, rules and service level agreements
	Oral Communication (Listening and Speaking skills)
	You need to know and understand how to:
	SA3. listen effectively and orally communicate information accurately
B. Professional Skills	**Decision Making**
	You need to know and understand how to:
	SB1. make a decision on a suitable course of action
	Plan and Organize
	You need to know and understand how to:
	SB2. plan and organize your work to meet health, safety and security requirements
	CustomerCentricity
	You need to know and understand how to:
	SB3. build and maintain positive and effective relationships with colleagues and customers
	Problem Solving
	You need to know and understand how to:
	SB4. apply problem solving approaches in different situations
	Analytical Thinking
	You need to know and understand how to:
	SB5. analyze data and activities
	Critical Thinking
	You need to know and understand how to:
	SB6. apply balanced judgments to different situations
	Attention to Detail

SSC/N9003Maintain a healthy, safe and secure working environment

	You need to know and understand how to:
	SB7. check your work is complete and free from errors
	SB8. get your work checked by peers
	Team Working
	You need to know and understand how to:
	SB9. work effectively in a team environment
C. Technical Skills	You need to know and understand how to:
	SC1. identify and refer anomalies
	SC2. help reach agreements with colleagues
	SC3. keep up to date with changes, procedures and practices in your role

NOS Code	SSC/N9003		
Credits(NSQF)	TBD	Version number	1.0
Industry	IT-ITeS	Drafted on	30/04/2013
Industry Sub-sector	Engineering and R&D	Last reviewed on	31/01/2015
		Next review date	31/03/2016
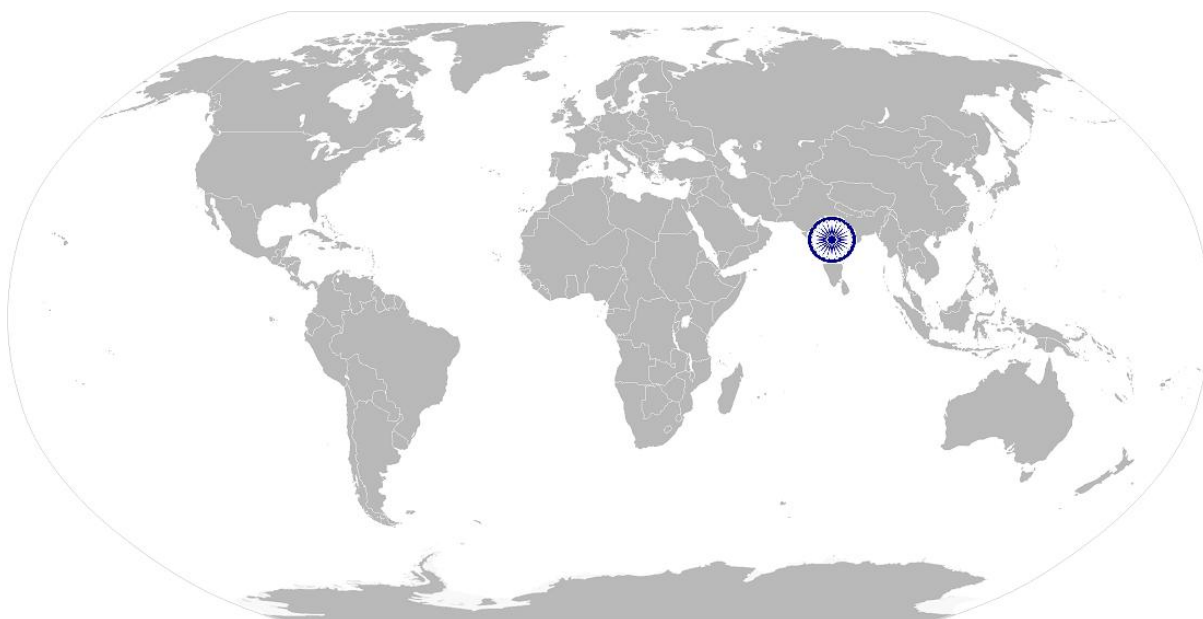
National Occupational Standard

This unit is about providing specified data/information related to your work in templates or other standard formats

SSC/N9004Provide data/information in standard formats

Unit Code	**SSC/N9004**
Unit Title (Task)	**Provide data/information in standard formats**
Description	This unit is about providing specified data/information related to your work in templates or other standard formats.
Scope	This unit/task covers the following: **Appropriate people**: • line manager • members of your own work group • people in other work groups in your organization • subject matter experts **Data/information**: • quantitative • qualitative **Sources**: • within your organization • outside your organization **Formats**: • paper-based • electronic
Performance Criteria (PC) w.r.t. the Scope	
	To be competent, you must be able to: PC1. establish and agree with **appropriate people** the **data/information** you need to provide, the **formats** in which you need to provide it, and when you need to provide it PC2. obtain the **data/information** from reliable **sources** PC3. check that the **data/information** is accurate, complete and up-to-date PC4. obtain advice or guidance from **appropriate people** where there are problems with the **data/information** PC5. carry out rule-based analysis of the **data/information**, if required PC6. insert the **data/information** into the agreed **formats** PC7. check the accuracy of your work, involving colleagues where required PC8. report any unresolved anomalies in the **data/information** to **appropriate people** PC9. provide complete, accurate and up-to-date data/information to the **appropriate people** in the required **formats** on time
Knowledge and Understanding (K)	
A. Organizational Context	You need to know and understand: KA1. your organization's procedures and guidelines for providing data/information

Applicable NOS Unit

SSC/N9004Provide data/information in standard formats
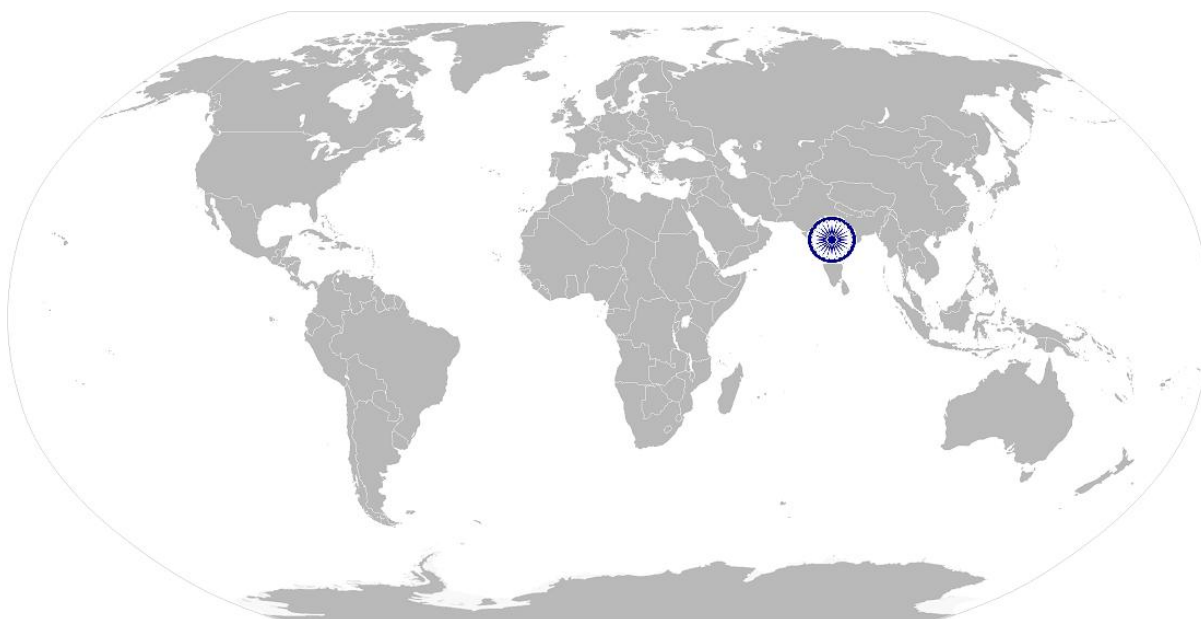
(Knowledge of the company/ organization and its processes)	in standard formats and your role and responsibilities in relation to this KA2. the knowledge management culture of your organization KA3. your organization's policies and procedures for recording and sharing information and the importance of complying with these KA4. the importance of validating data/information before use and how to do this KA5. procedures for updating data in appropriate formats and with proper validation KA6. the purpose of the CRM database KA7. how to use the CRM database to record and extract information KA8. the importance of having your data/information reviewed by others KA9. the scope of any data/information requirements including the level of detail required KA10. the importance of keeping within the scope of work and adhering to timescales
B. Technical Knowledge	You need to know and understand: KB1. data/information you may need to provide including the sources and how to do this KB2. templates and formats used for data/information including their purpose and how to use these KB3. different techniques used to obtain data/information and how to apply KB4. these KB5. how to carry out rule-based analysis on the data/information KB6. typical anomalies that may occur in data/information KB7. who to go to in the event of inaccurate data/information and how to report this

Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	You need to know and understand how to: SA1. complete accurate, well written work with attention to detail
	Reading Skills
	You need to know and understand how to: SA2. read instructions, guidelines, procedures, rules and service level agreements
	Oral Communication (Listening and Speaking skills)
	You need to know and understand how to: SA3. listen effectively and orally communicate information accurately
B. Professional Skills	**Decision Making**
	You need to know and understand how to: SB1. follow rule-based decision-making processes SB2. make a decision on a suitable course of action
	Plan and Organize

	You need to know and understand how to: SB3. plan and organize your work to achieve targets and deadlines
	CustomerCentricity
	You need to know and understand how to: SB4. check that your own work meets customer requirements SB5. meet and exceed customer expectations
	Problem Solving
	You need to know and understand how to: SB6. apply problem solving approaches in different situations
	Analytical Thinking
	You need to know and understand how to: SB7. configure data and disseminate relevant information to others
	Critical Thinking
	You need to know and understand how to: SB8. apply balanced judgments to different situations
	Attention to Detail
	You need to know and understand how to: SB9. check your work is complete and free from errors SB10. get your work checked by peers
	Team Working
	You need to know and understand how to: SB11. work effectively in a team environment
C. Technical Skills	You need to know and understand how to: SC1. use information technology effectively, to input and/or extract data accurately SC2. validate and update data SC3. identify and refer anomalies in data SC4. store and retrieve information SC5. share information using standard formats and templates SC6. keep up to date with changes, procedures and practices in your role

NOS Code		SSC/N9004	
Credits(NSQF)	TBD	**Version number**	1.0
Industry	IT-ITeS	**Drafted on**	30/04/2013
Industry Sub-sector	Engineering and R&D	**Last reviewed on**	31/01/2015
		Next review date	31/03/2016

National Occupational Standard
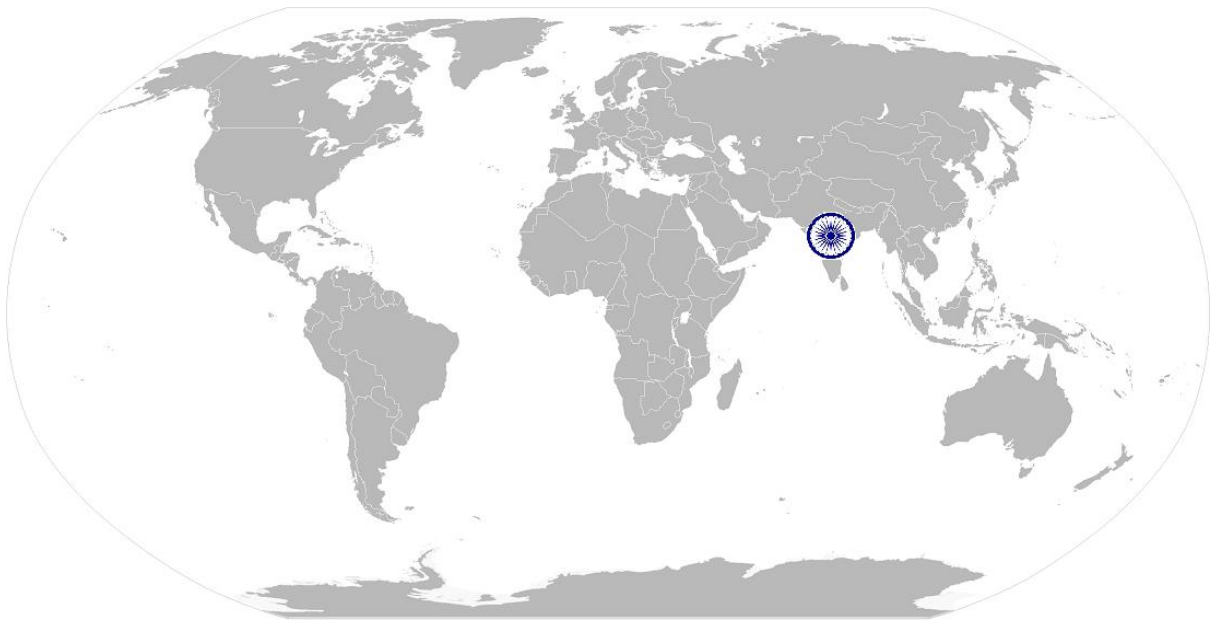
<u>**Overview**</u>

This unit is about taking action to ensure you have the knowledge and skills you need to perform competently in your current job role and to take on new responsibilities, where required.

SSC/N9005Develop your knowledge, skills and competence

<table>
<tr><td rowspan="11">Applicable NOS Unit</td><td>Unit Code</td><td>SSC/N9005</td></tr>
<tr><td>Unit Title
(Task)</td><td>Develop your knowledge, skills and competence</td></tr>
<tr><td>Description</td><td>This unit is about taking action to ensure you have the knowledge and skills you need to perform competently in your current job role and to take on new responsibilities, where required.
Competence is defined as: the application of knowledge and skills to perform to the standards required.</td></tr>
<tr><td>Scope</td><td>This unit/task covers the following:

Appropriate people may be:
line manager
human resources specialists
learning and development specialists
peers
Job role:
current responsibilities as defined in your job description
possible future responsibilities
Learning and development activities:
formal education and training programs, leading to certification
non-formal activities (such as private study, learning from colleagues, project work), designed to meet learning and development objectives but without certification
Appropriate action may be:
undertaking further learning and development activities
finding further opportunities to apply your knowledge and skills</td></tr>
<tr><td colspan="2">Performance Criteria (PC) w.r.t. the Scope</td></tr>
<tr><td></td><td>To be competent, you must be able to:

PC1.   obtain advice and guidance from appropriate people to develop your knowledge, skills and competence
PC2.   identify accurately the knowledge and skills you need for your job role
PC3.   identify accurately your current level of knowledge, skills and competence and any learning and development needs
PC4.   agree with appropriate people a plan of learning and development activities to address your learning needs
PC5.   undertake learning and development activities in line with your plan
PC6.   apply your new knowledge and skills in the workplace, under supervision
PC7.   obtain feedback from appropriate people on your knowledge and skills and how effectively you apply them
PC8.   review your knowledge, skills and competence regularly and take appropriate</td></tr>
</table>
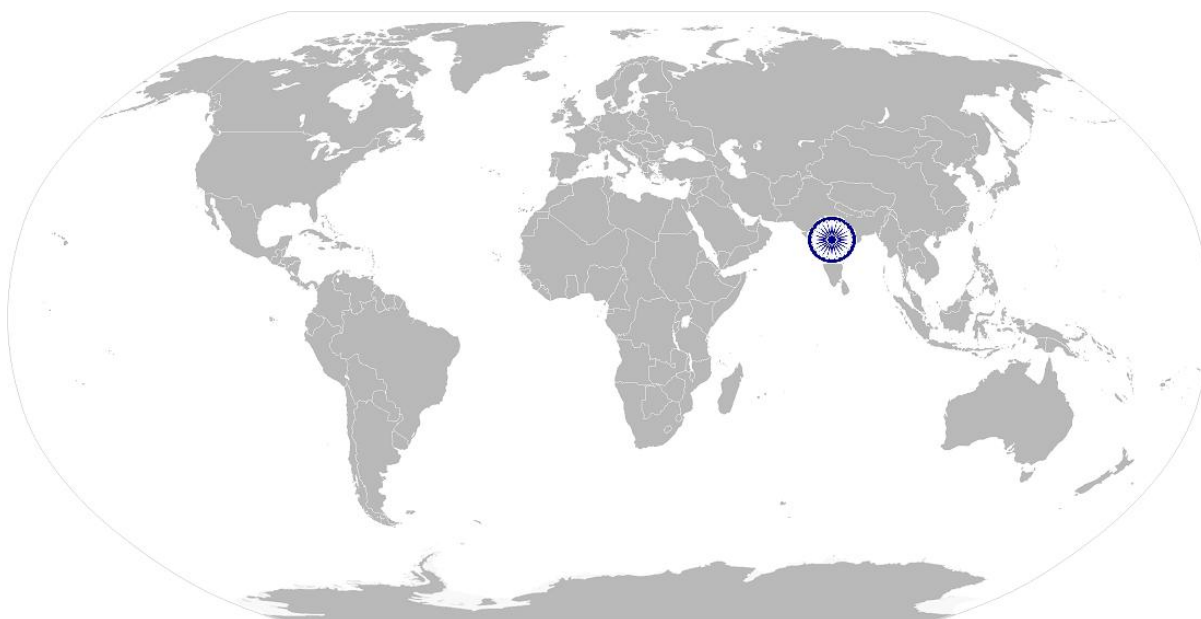
SSC/N9005Develop your knowledge, skills and competence

	action
Knowledge and Understanding (K)	
A. **Organizational Context** (Knowledge of the company/ organization and its processes)	You need to know and understand: KA1. your organization's procedures and guidelines for developing your knowledge, skills and competence and your role and responsibilities in relation to this KA2. the importance of developing your knowledge, skills and competence to you and your organization KA3. different methods used by your organization to review skills and knowledge including: • training need analysis • skills need analysis • performance appraisals KA4. how to review your knowledge and skills against your job role using different methods and analysis KA5. different types of learning and development activities available for your job role and how to access these KA6. how to produce a plan to address your learning and development needs, who to agree it with and the importance of undertaking the planned activities KA7. different types of support available to help you plan and undertake learning and development activities and how to access these KA8. why it is important to maintain records of your learning and development KA9. methods of obtaining and accepting feedback from appropriate people on your knowledge skills and competence KA10. how to use feedback to develop in your job role
B. **Technical Knowledge**	You need to know and understand: KB1. the knowledge and skills required in your job role KB2. your current learning and development needs in relation to your job role KB3. different types of learning styles and methods including those that help you learn best KB4. the importance of taking responsibility for your own learning and development KB5. to the importance of learning and practicing new concepts, theory and how to apply these in the work environment or on samples. KB6. how to explore sample problems and apply solutions
Skills (S)	
A. **Core Skills/ Generic Skills**	**Writing Skills**
	You need to know and understand how to: SA1. communicate with colleagues in writing
	Reading Skills

SSC/N9005Develop your knowledge, skills and competence

	You need to know and understand how to:	
	SA2. read instructions, guidelines and procedures	
	Oral Communication (Listening and Speaking skills)	
	You need to know and understand how to:	
	SA3. ask for clarification and advice from line managers	
B. Professional Skills	**Decision Making**	
	You need to know and understand how to:	
	SB1. make a decision on a suitable course of action	
	Plan and Organize	
	You need to know and understand how to:	
	SB2. plan and organize your work to achieve targets and deadlines	
	CustomerCentricity	
	You need to know and understand how to:	
	SB3. check that your own work meets customer requirements	
	Problem Solving	
	You need to know and understand how to:	
	SB4. refer anomalies to the line manager	
	Analytical Thinking	
	You need to know and understand how to:	
	SB5. analyze data and activities	
	Critical Thinking	
	You need to know and understand how to:	
	SB6. apply balanced judgments to different situations	
	Attention to Detail	
	You need to know and understand how to:	
	SB7. check your work is complete and free from errors	
	SB8. get your work checked by peers	
	Team Working	
	You need to know and understand how to:	
	SB9. work effectively in a team environment	
C. Technical Skills	You need to know and understand how to:	
	SC1. use information technology effectively	
	SC2. agree objectives and work requirements	
	SC3. keep up to date with changes, procedures and practices in your role	

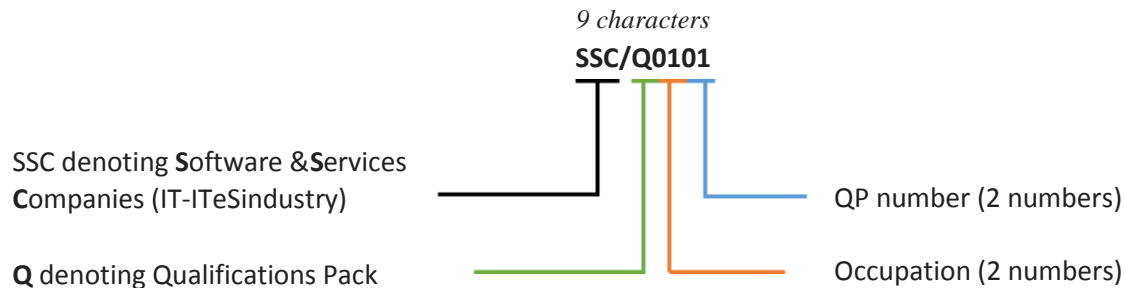| NOS Code		SSC/N9005	
Credits(NSQF)	TBD	Version number	1.0
Industry	IT-ITeS	Drafted on	30/04/2013
Industry Sub-sector	Engineering and R&D	Last reviewed on	31/01/2015
		Next review date	31/03/2016

Qualifications Pack

9 characters

SSC/Q0101

SSC denoting **S**oftware &**S**ervices **C**ompanies (IT-ITeSindustry)

Q denoting Qualifications Pack

QP number (2 numbers)

Occupation (2 numbers)

National Occupational Standard

9 characters

SSC/N0101

SSC denoting **S**oftware &**S**ervices **C**ompanies (IT-ITeSindustry)

N denoting National Occupational Standard

NOS number (2 numbers)

Occupation (2 numbers)

Occupational Standard

9 characters

SSC/N0101

SSC denoting **S**oftware &**S**ervices **C**ompanies (IT-ITeSindustry)

O denoting Occupational Standard

OS number (2 numbers)

Occupation (2 numbers)
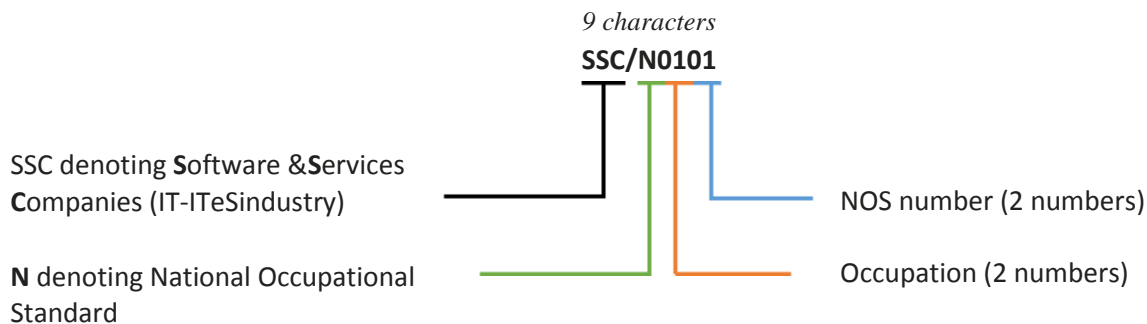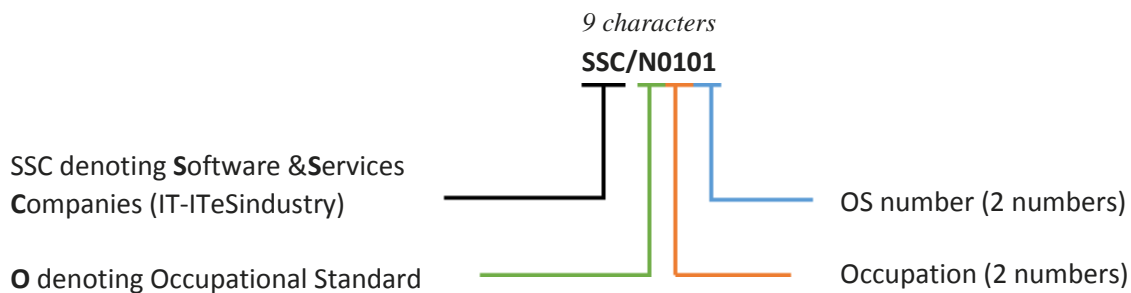
It is important to note that an OS unit can be denoted with either an '**O**' or an '**N**'.
- If an OS unit denotes 'O', it is an OS unit that is an international standard. An example of OS unit denoting 'O' is SSC/**O**0101.
- If an OS unit denotes '**N**', it is an OS unit that is a national standard and is applicable only for the Indian IT-ITeS industry.An example of OS unit denoting '**N**' is SSC/N0101

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

Sub-Sector	Range of Occupation numbers
IT Service(ITS)	01-20
Business Process Management (BPM)	21-40
Engg. and R&D(ERD)	41-60
Software Products(SPD)	61-80

Sequence	Description	Example
Three letters	Industry name (Software&Service Companies)	SSC
Slash	/	/
Next letter	Whether **Q**P or **N**OS	N
Next two numbers	Occupation Code	01
Next two numbers	OS number	01

Criteria for Assessment of Trainees

Job Role	Quality Engineer
Qualification Pack	SSC/Q4801
Sector Skill Council	IT-ITeS

Guidelines for Assessment:
1. Criteria for assessment for each Qualification Pack (QP) will be created by the Sector Skill Council (SSC). Each performance criteria (PC) will be assigned Theory and Skill/Practical marks proportional to its importance in NOS.
2. The assessment will be conducted online through assessment providers authorised by SSC.
3. Format of questions will include a variety of styles suitable to the PC being tested such as multiple choice questions, fill in the blanks, situational judgment test, simulation and programming test.
4. To pass a QP, a trainee should pass each individual NOS. Standard passing criteria for each NOS is 70%.
5. For latest details on the assessment criteria, please visit www.sscnasscom.com.

				MarksAllocation	
		Total Mark	**Out of**	**Theory**	**Skills Practical**
1.SSC/N1304 (Contribute to quality assurance of projects)	PC1. establish clearly the scope of your role and responsibilities in relation to quality assurance		5	5	0
	PC2. check that projects comply with your organization's requirements during every phase		5	5	0
	PC3. collect required data/information against key indicators using standard templates and tools		10	0	10
	PC4. analyze data/information to accurately identify risks to projects		10	0	10
	PC5. generate reports on checks carried out, data/information collected and risks identified using standard templates and tools	**100**	10	0	10
	PC6. schedule review meetings at agreed project milestones		5	5	0
	PC7. provide required information to project management reviewers, internal auditors and technical reviewers in time for review meetings		5	5	0
	PC8. check that the key actions from review meetings are accurately recorded		10	0	10
	PC9. monitor project progress to check that key actions are taken on time		10	0	10
	PC10. obtain advice and guidance from		5	5	0

	appropriate people, where necessary			
	PC11. comply with relevant standards, policies, procedures, guidelines and service level agreements (SLAs) when contributing to quality assurance	10	0	10
	PC12. carry out root cause analysis of process failures in projects to facilitate process improvements	10	0	10
	PC13. identify and share good practice with others to improve productivity	5	5	0
	Total	**100**	**30**	**70**
2. SSC/N0703 (Create documents for knowledge sharing)	PC1. establish with appropriate people the purpose, scope, formats and target audience for the documents	5	5	0
	PC2. access existing documents, language standards, templates and documentation tools from your organization's knowledge base	15	0	15
	PC3. liaise with appropriate people to obtain and verify the information required for the documents	5	5	0
	PC4. confirm the content and structure of the documents with appropriate people	10	0	10
	PC5. create documents using standard templates and agreed language standards	25	0	25
	PC6. review documents with appropriate people and incorporate their inputs	10	0	10
	PC7. submit documents for approval by appropriate people	5	5	0
	PC8. publish documents in agreed formats	5	5	0
	PC9. update your organization's knowledge base with the documents	5	5	0
	PC10. comply with your organization's policies, procedures and guidelines when creating documents for knowledge sharing	15	0	15
	Total	100	25	75
3.NOS/N9001 (Manage your work to meet requirements)	PC1. establish and agree your workrequirements with appropriate people	6.25	0	6.25
	PC2. keep your immediate work area clean and tidy	12.5	6.25	6.25
	PC3. utilize your time effectively	12.5	6.25	6.25
	PC4. use resources correctly and efficiently	18.75	6.25	12.5
	PC5. treat confidential information correctly	6.25	0	6.25
	PC6. work in line with your organization's policies and procedures	12.5	0	12.5
	PC7. work within the limits of your job role	6.25	0	6.25
	PC8. obtain guidance from appropriate people, where necessary	6.25	0	6.25

Note: In row for "3.NOS/N9001", the "100" total appears aligned with PC4 row.

	PC9. ensure your work meets the agreed requirements		18.75	6.25	12.5
		Total	100	25	75
4.SSC/N9002 (Work effectively with colleagues)	PC1. communicate with colleagues clearly, concisely and accurately		20	0	20
	PC2. work with colleagues to integrate your work effectively with theirs		10	0	10
	PC3. pass on essential information to colleagues in line with organizational requirements		10	10	0
	PC4. work in ways that show respect for colleagues		20	0	20
	PC5. carry out commitments you have made to colleagues	100	10	0	10
	PC6. let colleagues know in good time if you cannot carry out your commitments, explaining the reasons		10	10	0
	PC7. identify any problems you have working with colleagues and take the initiative to solve these problems		10	0	10
	PC8. follow the organization's policies and procedures for working with colleagues		10	0	10
		Total	100	20	80
5.SSC/N9003 (Maintain a healthy, safe and secure working environment)	PC1. comply with your organization's current health, safety and security policies and procedures		20	10	10
	PC2. report any identified breaches in health, safety, and security policies and procedures to the designated person		10	0	10
	PC3. identify and correct any hazards that you can deal with safely, competently and within the limits of your authority		20	10	10
	PC4. report any hazards that you are not competent to deal with to the relevant person in line with organizational procedures and warn other people who may be affected	100	10	0	10
	PC5. follow your organization's emergency procedures promptly, calmly, and efficiently		20	10	10
	PC6. identify and recommend opportunities for improving health, safety, and security to the designated person		10	0	10
	PC7. complete any health and safety records legibly and accurately		10	0	10
		Total	100	30	70
6.SSC/N9004 (Provide data/information in standard formats)	PC1. establish and agree with appropriate people the data/information you need to provide, the formats in which you need to provide it, and when you need to provide it	100	12.5	12.5	0
	PC2. obtain the data/information from reliable		12.5	0	12.5

	sources				
	PC3. check that the data/information is accurate, complete and up-to-date		12.5	6.25	6.25
	PC4. obtain advice or guidance from appropriate people where there are problems with the data/information		6.25	0	6.25
	PC5. carry out rule-based analysis of the data/information, if required		25	0	25
	PC6. insert the data/information into the agreed formats		12.5	0	12.5
	PC7. check the accuracy of your work, involving colleagues where required		6.25	0	6.25
	PC8. report any unresolved anomalies in the data/information to appropriate people		6.25	6.25	0
	PC9. provide complete, accurate and up-to-date data/information to the appropriate people in the required formats on time		6.25	0	6.25
		Total	**100**	**25**	**75**
7.SSC/N9005 (Develop your knowledge, skills and competence)	PC1. obtain advice and guidance from appropriate people to develop your knowledge, skills and competence		10	0	10
	PC2. identify accurately the knowledge and skills you need for your job role		10	0	10
	PC3. identify accurately your current level of knowledge, skills and competence and any learning and development needs		20	10	10
	PC4. agree with appropriate people a plan of learning and development activities to address your learning needs	**100**	10	0	10
	PC5. undertake learning and development activities in line with your plan		20	10	10
	PC6. apply your new knowledge and skills in the workplace, under supervision		10	0	10
	PC7. obtain feedback from appropriate people on your knowledge and skills and how effectively you apply them		10	0	10
	PC8. review your knowledge, skills and competence regularly and take appropriate action		10	0	10
		Total	**100**	**20**	**80**