Contents

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- Medical Equipment Technician

SECTOR: HEALTHCARE

SUB-SECTOR: Allied Healthcare & Paramedics

OCCUPATION: Medical Equipment Technician

REFERENCE ID: HSS/Q5601

ALIGNED TO: NCO-2004/ 3133.9

Medical Equipment Technician: in the Healthcare Industry is also known as a Biomedical Equipment Technician (BMET), Service Technician, Biomedical Electronics Technician, and Biomedical Engineering Technician (BMET)

Brief Job Description: Medical Equipment Technician install, maintain and repair patient care equipment. They perform inspection, installation, and preventative maintenance of general clinical equipment, including appropriate documentation for all service activities and training the hospital staff.

Personal Attributes: Medical equipment technician should have the ability to understand and follow complex technical instructions, ability to pay close attention to detail, ability to effectively use computer applications, familiarity with the techniques of maintaining a filing system, accuracy, dependability, meticulous, communicative, a passion for helping people, experience in medical environment and terminology..

<table>
<tr><td rowspan="7" style="vertical-align:middle">Job Details</td></tr>
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Qualifications Pack Code	**HSS/Q5601**		
Job Role	Medical Equipment Technician		
Credits (NSQF)	TBD	Version number	1.0
Sector	Health	Drafted on	12/05/2013
Sub-sector	Allied Health & Paramedics	Last reviewed on	22/05/2013
Occupation	Medical Equipment Technician	Next review date	22/12/2016
NSQC Clearance on	18/06/2015		

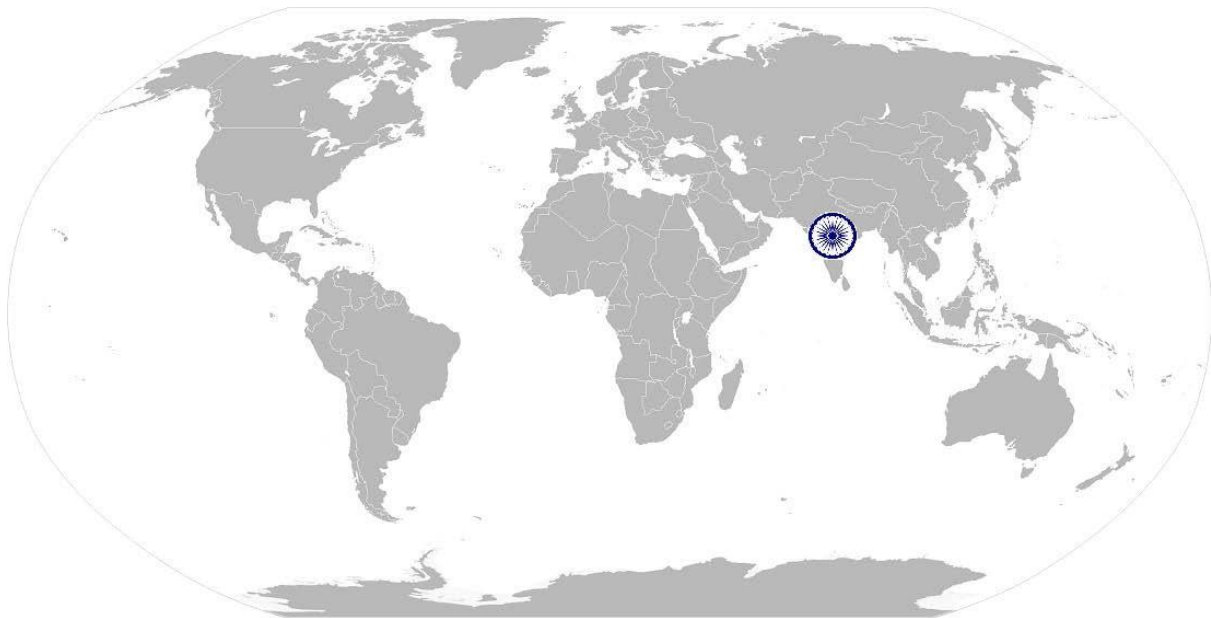| Job Role	Medical Equipment Technician
Role Description	Install, maintain and repair patient care equipment
NSQF level	4
Minimum Educational Qualifications*	Class XII preferably but class X in certain cases
Maximum Educational Qualifications*	Not Applicable
Training (Suggested but not mandatory)	Relevant professional qualification
Minimum Job Entry Age	18 years
Experience	Not Applicable
Applicable National Occupational Standards (NOS)	**Compulsory:** 1. **HSS/N5601: Deliver and set-up medical equipment** 2. **HSS/N5602: Train and educate hospital staff** 3. **HSS/N5603: Calibrate and help in equipment maintenance** 4. **HSS/N5604: Provide on-call ad on-site assistance** 5. **HSS/N9603: Act within the limits of one's competence and Authority** 6. **HSS/N9606: Maintain a safe, healthy, and secure working environment** 7. **HSS/N9607: Practice Code of conduct while performing duties** **Optional** N.A
Performance Criteria	As described in the relevant OS units

Definitions

Keywords /Terms	Description
Core Skills/Generic Skills	Core Skills or Generic Skills are a group of skills that are essential 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.
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.
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 organisation.
Knowledge and Understanding	Knowledge and Understanding are statements that together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
National Occupational Standards (NOS)	NOS are Occupational Standards that apply uniquely in the Indian context.
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.
Organisational Context	Organisational Context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
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.
Scope	Scope is the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on the quality of performance required.
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-functions	Sub-functions are sub-activities essential to fulfil the achieving the objectives of the function.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.

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Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Unit Code	Unit Code is a unique identifier for an OS unit, which can be denoted with '**N**'.
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.

Keywords /Terms	Description
HIMS	Hospital information management system
HIV	Human immunodeficiency virus
MHRD	Ministry of human resource development
MLC	Medico legal case
MTP	Medical termination of pregnancy
NOS	National Occupational Standard(s)
OPD	Out-patient department
OS	Occupational Standards
QP	Qualification Pack

Acronyms

National Occupational Standard

Overview

This Occupational Standard describes the knowledge, understanding and skills required of a Medical Equipment Technician to deliver and set-up medical equipment.

Unit Code	HSS/N5601
Unit Title (Task)	Deliver and set-up medical equipment
Description	This OS unit is about the Medical Equipment Technician to deliver and set-up medical equipment.
Scope	This unit covers the following: • Providing and setting up the required medical equipment in the concerned medical department

Performance Criteria(PC) w.r.t. the Scope	
Element	**Performance Criteria**
Providing and setting up the required medical equipment in the concerned medical department	To be competent, the user/individual on the job must be able to: PC1. Deliver and set up, or coordinate with hospital staff PC2. Ensure that all required equipment and item(s) are delivered in a timely manner as agreed upon by the supplier, and prescribing physician PC3. Ensure that all equipment and item(s) delivered to the hospital is consistent with the prescribing physician's order, needs, and limitations PC1. Provide all equipment and item(s) that are necessary to operate the equipment PC2. Perform further adjustments as applicable

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. Relevant legislation, standards, policies, and procedures followed by the provider KA2. Follows established protocols as defined in organisation's policy while keeping and maintaining the medical records
B. Technical Knowledge	The user/individual on the job needs to: KB1. Check the related forms required during equipment set-up KB2. Assemble the equipment appropriately KB3. Have knowledge about the equipment

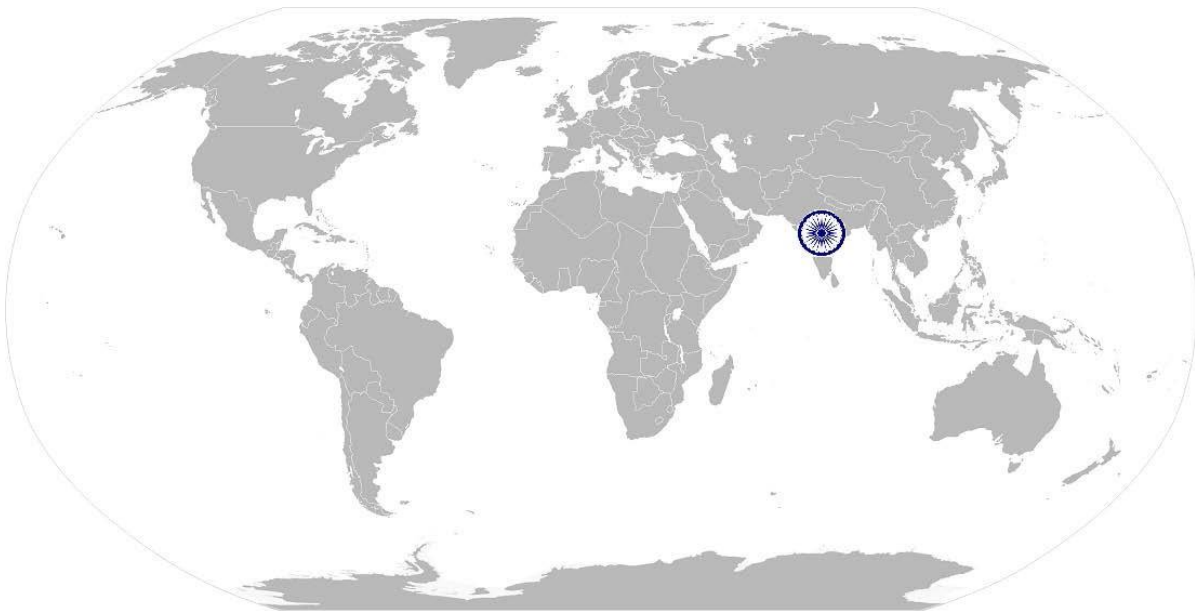| Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. Use effective written communication protocols SA2. Communicate information (for example, facts, ideas, or messages) in a brief, clear, and organised manner SA3. Produce written information, which may include technical material, that is appropriate for the intended audience
	Reading Skills
	The user/individual on the job needs to: SA4. Understand and interpret written material, including technical materials, rules, regulations, instructions, reports, charts, graphs, or tables

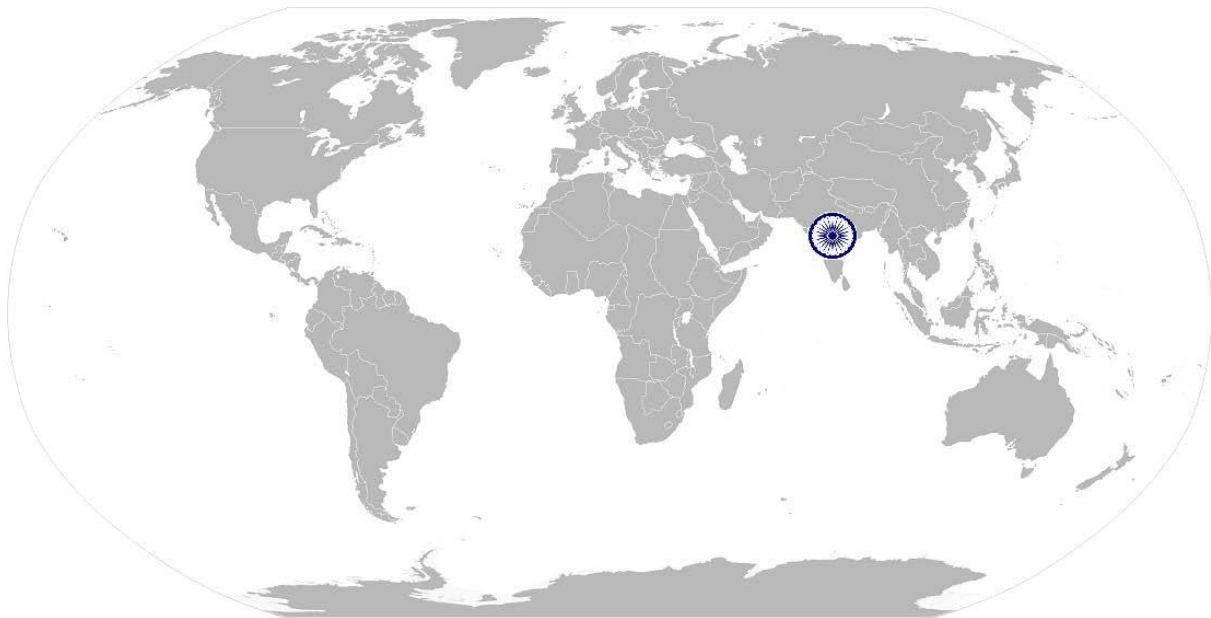|	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA5. Practice effective communication with colleagues and other health professionals while maintaining a professional attitude SA6. Seek out and listen to colleagues and other health professionals SA7. Express information (for example, ideas or facts) to individual or groups effectively, taking into account the audience and nature of the information
B. Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand: SB1. How to make sound, well-informed, and objective decisions SB2. How to perceive the impact and implications of decisions
	Plan and Organize
	The user/individual on the job needs to know and understand how to : SB3. Develop specific goals and plans to prioritise, organise, and accomplish work
	Customer Centricity
	The user/individual on the job needs to know and understand: SB4. How to work with clients and customers (that is, any individual who uses or receives the services or products that unit produces, including the general public, individuals who work in the agency, other agencies, or organisations outside the Government) SB5. How to assess their needs, provide information or assistance, resolves their problems, or satisfies their expectations; knows about available products and services; is committed to provide quality products and services
	Problem Solving
	The user/individual on the job needs to: SB6. Detect the fault and take corrective measures
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB7. Analyse information and use logic to address work-related issues and problems
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB8. Analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently SB9. Demonstrate the ability to adapt to rapidly changing situations, e.g.: responds appropriately to critical situations, retains composure in stressful situations, applies existing skills to new situations

NOS Version Control

NOS Code	HSS/N5601		
Credits (NSQF)	TBD	Version number	1.0
Industry	Health	Drafted on	12/05/13
Industry Sub-sector	Allied Health and Paramedics	Last reviewed on	19/07/13
Occupation	Medical Equipment Technician	Next review date	24/12/16

National Occupational Standard

Overview

This Occupational Standard describes the knowledge, understanding and skills required of a Medical Equipment Technician to train and educate the hospital staff on proper safety and utilization of medical equipment.

National Occupational Standard

Unit Code	HSS/N5602
Unit Title (Task)	Train and educate hospital staff
Description	This OS unit is about the Medical Equipment Technician to train and educate hospital staff.
Scope	This unit covers the following: • Training and educating the hospital staff for operating the installed medical equipment safely and correctly.

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

Element	Performance Criteria
Training and educating the hospital staff for operating the installed medical equipment safely and correctly	To be competent, the user/individual on the job must: PC1. Provide, or coordinate the provision of, appropriate information related to the set-up, features, routine use, trouble shooting, cleaning, and maintenance of all equipment provided PC2. Provide relevant information and/or instructions about infection control issues related to the use of all equipment provided PC3. Ensure that the hospital staff can use all equipment provided safely and effectively PC4. Make sure training and instructions provided to the hospital staff shall commensurate with the risks, complexity, and manufacturer's instructions and/or specifications for the equipment PC5. Document all training and communication in the providers record, including the date, time, and signature of the person providing the service

Knowledge and Understanding (K)

A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. Relevant legislation, standards, policies, and procedures followed by the provider KA2. How to follow established protocols as defined in organisation's policy while keeping and maintaining the medical records
B. Technical Knowledge	The user/individual on the job needs to: KB1. Know and understand the basic medical terminologies KB2. Know how to document and record the training provided to hospital staff KB3. Tailor training and instruction materials and approaches to the needs, abilities, learning preferences, and language of the concerned hospital KB4. Provide written instructions to the hospital staff for equipment KB5. Document that the instructions were received and understood KB6. Ensure that the hospital staff know how to use the equipment safely

Skills (S)

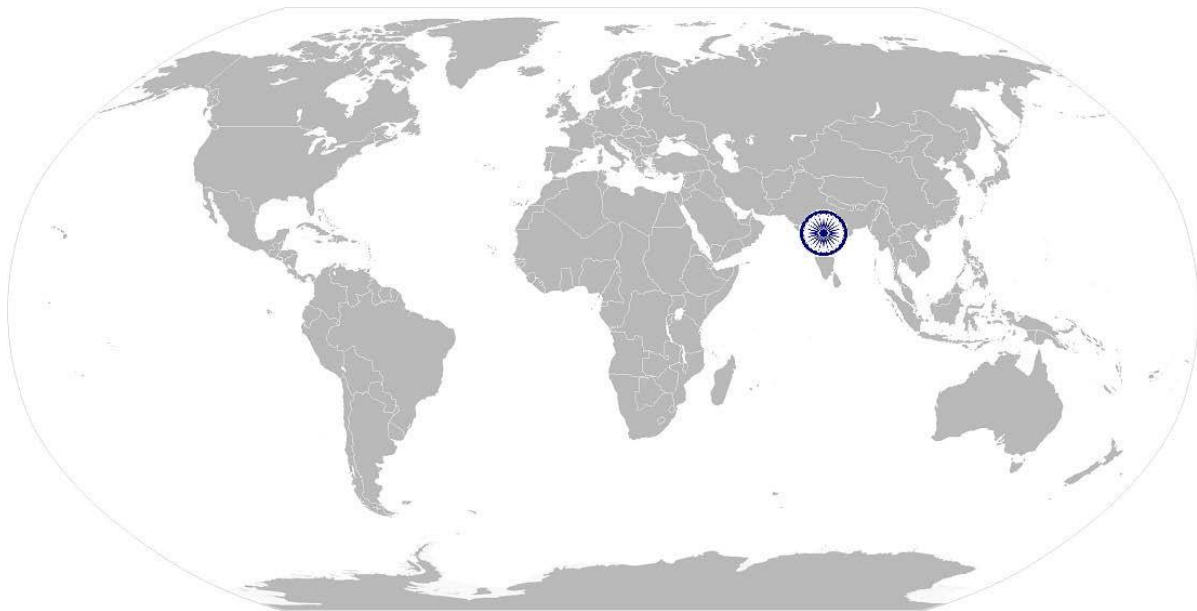| A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. Use effective written communication protocols SA2. Communicate information (for example, facts, ideas, or messages) in a brief, clear, and organised manner SA3. Produce written information, which may include technical material, that is

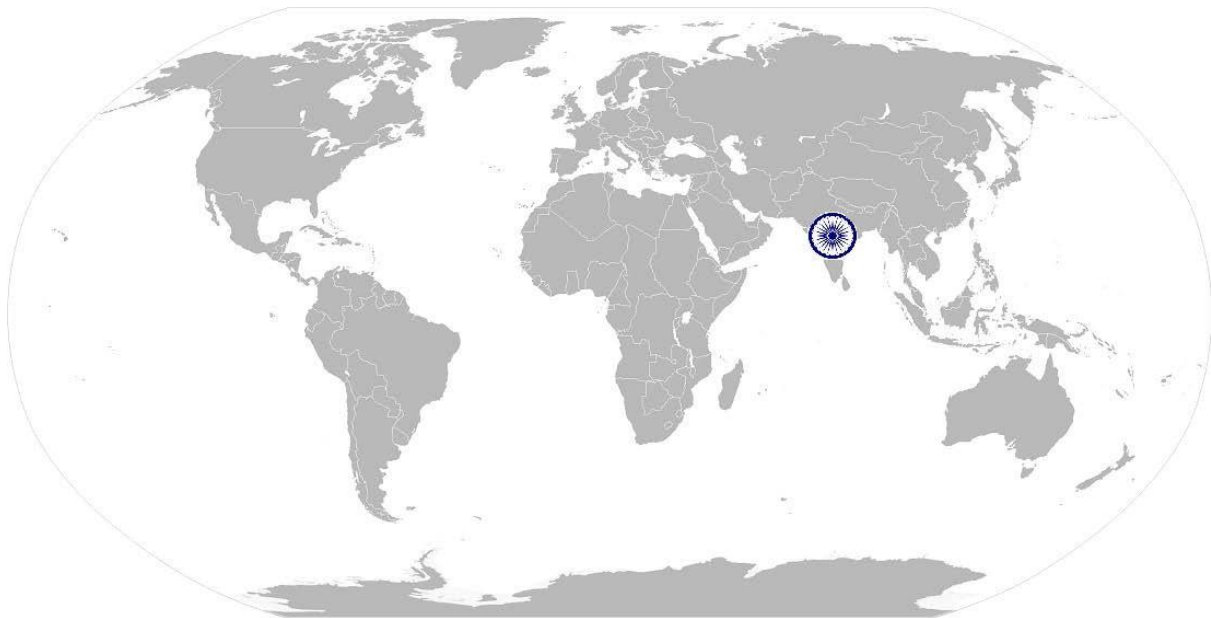|		
7 | P a g e	appropriate for the intended audience	
	Reading Skills	
	The user/individual on the job needs to: SA4. Understand and interpret written material, including technical materials, rules, regulations, instructions, reports, charts, graphs, or tables	
	Oral Communication (Listening and Speaking skills)	
	The user/individual on the job needs to know and understand how to: SA5. Practice effective communication with colleagues and other health professionals while maintaining a professional attitude SA6. Seek out and listen to colleagues and other health professionals SA7. Express information (for example, ideas or facts) to individual or groups effectively, taking into account the audience and nature of the information	
B. Professional Skills	**Decision Making**	
	The user/individual on the job needs to know and understand: SB1. How to make sound, well-informed, and objective decisions SB2. How to perceive the impact and implications of decisions	
	Plan and Organize	
	The user/individual on the job needs to know and understand how to : SB3. Develop specific goals and plans to prioritise, organise, and accomplish work	
	Customer Centricity	
	The user/individual on the job needs to know and understand: SB4. How to work with clients and customers (that is, any individual who uses or receives the services or products that unit produces, including the general public, individuals who work in the agency, other agencies, or organisations outside the Government) SB5. How to assess their needs, provide information or assistance, resolves their problems, or satisfies their expectations; knows about available products and services; is committed to provide quality products and services	
	Problem Solving	
	The user/individual on the job needs to: SB6. Detect the fault and take corrective measures	
	Analytical Thinking	
	The user/individual on the job needs to know and understand how to: SB7. Analyse information and use logic to address work-related issues and problems	
	Critical Thinking	
	The user/individual on the job needs to know and understand how to: SB8. Analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently SB9. Demonstrate the ability to adapt to rapidly changing situations, e.g.: responds appropriately to critical situations, retains composure in stressful situations, applies existing skills to new situations	

NOS Version Control

NOS Code	HSS/N5602		
Credits (NSQF)	TBD	Version number	1.0
Industry	Health	Drafted on	12/05/13
Industry Sub-sector	Allied Health and Paramedics	Last reviewed on	19/07/13
Occupation	Medical Equipment Technician	Next review date	19/12/16

National Occupational Standard

Overview

This Occupational Standard describes the knowledge, understanding and skills required of a Medical Equipment Technician to calibrate and help in equipment maintenance.

National Occupational Standard

Unit Code	HSS/N5603
Unit Title (Task)	Calibrate and help in equipment maintenance
Description	This OS unit is about the Medical Equipment Technician to calibrate and help in equipment maintenance.
Scope	This unit covers the following: • Calibrating and helping in equipment maintenance

Performance Criteria(PC) w.r.t. the Scope	
Element	**Performance Criteria**
Training and educating the hospital staff for operating the installed medical equipment safely and correctly	To be competent, the user/individual on the job must be able to: PC1. Test and calibrate parts and equipment PC2. Calibrated equipment according to the manufacturer's recommendations, study protocols PC3. Maintain calibration record for the equipment PC4. Maintain the Calibration sheet for inspection by the regulatory authorities and other relevant authorities PC5. Help in equipment maintenance PC6. Keep records of maintenance and repairs

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. Relevant legislation, standards, policies, and procedures followed by the provider KA2. How to follow established protocols as defined in organisation's policy while keeping and maintaining the medical records
B. Technical Knowledge	The user/individual on the job must be able to: KB1. Test the equipment KB2. Calibrate the equipment KB3. Record calibration on relevant sheet KB4. Review technical manuals and regularly attend training sessions KB5. Explain and demonstrate correct operation of medical equipment

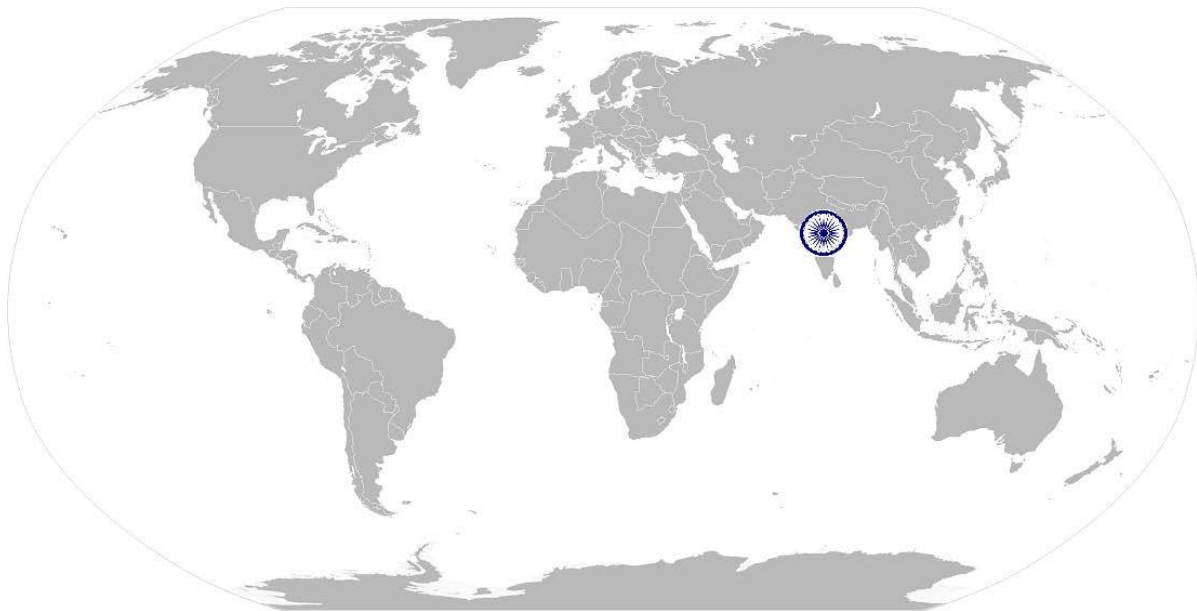| Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. Use effective written communication protocols SA2. Communicate information (for example, facts, ideas, or messages) in a brief, clear and organised manner SA3. Produce written information, which may include technical material, that is appropriate for the intended audience
	Reading Skills
	The user/individual on the job needs to: SA4. Understand and interpret written material, including technical materials, rules, regulations, instructions, reports, charts, graphs, or tables

	Oral Communication (Listening and Speaking skills)	
	The user/individual on the job needs to know and understand how to: SA5. Practice effective communication with colleagues and other health professionals while maintaining a professional attitude SA6. Seek out and listen to colleagues and other health professionals SA7. Express information (for example, ideas or facts) to individual or groups effectively, taking into account the audience and nature of the information	
B. Professional Skills	**Decision Making**	
	The user/individual on the job needs to know and understand: SB1. How to make sound, well-informed, and objective decisions SB2. How to perceive the impact and implications of decisions	
	Plan and Organize	
	The user/individual on the job needs to know and understand how to : SB3. Develop specific goals and plans to prioritise, organise, and accomplish work	
	Customer Centricity	
	The user/individual on the job needs to know and understand: SB4. How to work with clients and customers (that is, any individual who uses or receives the services or products that unit produces, including the general public, individuals who work in the agency, other agencies, or organisations outside the Government) SB5. How to assess their needs, provide information or assistance, resolves their problems, or satisfies their expectations; knows about available products and services; is committed to provide quality products and services	
	Problem Solving	
	The user/individual on the job needs to: SB6. Detect the fault and take corrective measures	
	Analytical Thinking	
	The user/individual on the job needs to know and understand how to: SB7. Analyse information and use logic to address work-related issues and problems	
	Critical Thinking	
	The user/individual on the job needs to know and understand how to: SB8. Analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently SB9. Demonstrate the ability to adapt to rapidly changing situations, e.g.: responds appropriately to critical situations, retains composure in stressful situations, applies existing skills to new situations	

NOS Version Control

NOS Code	HSS/N5603		
Credits (NSQF)	TBD	Version number	1.0
Industry	Health	Drafted on	12/05/13
Industry Sub-sector	Allied Health and Paramedics	Last reviewed on	19/07/13
Occupation	Medical Equipment Technician	Next review date	19/12/16

National Occupational Standard

Overview

This Occupational Standard describes the knowledge, understanding and skills required of a Medical Equipment technician to provide on-call and on site assistance.

National Occupational Standard

Unit Code	HSS/N5604
Unit Title (Task)	Provide on-call and on-site assistance
Description	This OS unit is about Medical equipment technician providing on-call and onsite assistance
Scope	This unit covers the following: • Providing on-call and onsite assistance

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

Element	Performance Criteria
Providing on-call and onsite assistance	To be competent, the user/individual on the job must: PC1. Provide on call assistance by giving instruction PC2. Provide technical assistance and instructions to hospital staff regarding the fault if applicable PC3. Diagnose and correct system and equipment malfunctions if fault is there PC4. Test, evaluate, and classify excess or in-use medical equipment and determine serviceability, condition, and disposition, in accordance with regulations PC5. Examine medical equipment or facility's structural environment and check for proper use of equipment to protect patients and staff from electrical or mechanical hazards and to ensure compliance with safety regulations PC6. Study technical manuals or attend training sessions provided by equipment manufacturers to maintain current knowledge PC7. Explain or demonstrate correct operation or preventive maintenance of medical equipment to personnel.

Knowledge and Understanding (K)

A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. Relevant legislation, standards, policies, and procedures followed by the provider KA2. How to follow established protocols as defined in organisation's policy while keeping and maintaining the medical records
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. How to identify whether the fault needs self-correction or not KB2. How to correct the particular fault KB3. How to provide on call assistance KB4. How to correlate the existing fault with the training provided KB5. Repairing medical equipment sometimes when it is being used on the patient to take great care to ensure that repairs do not disturb patients

Skills (S)

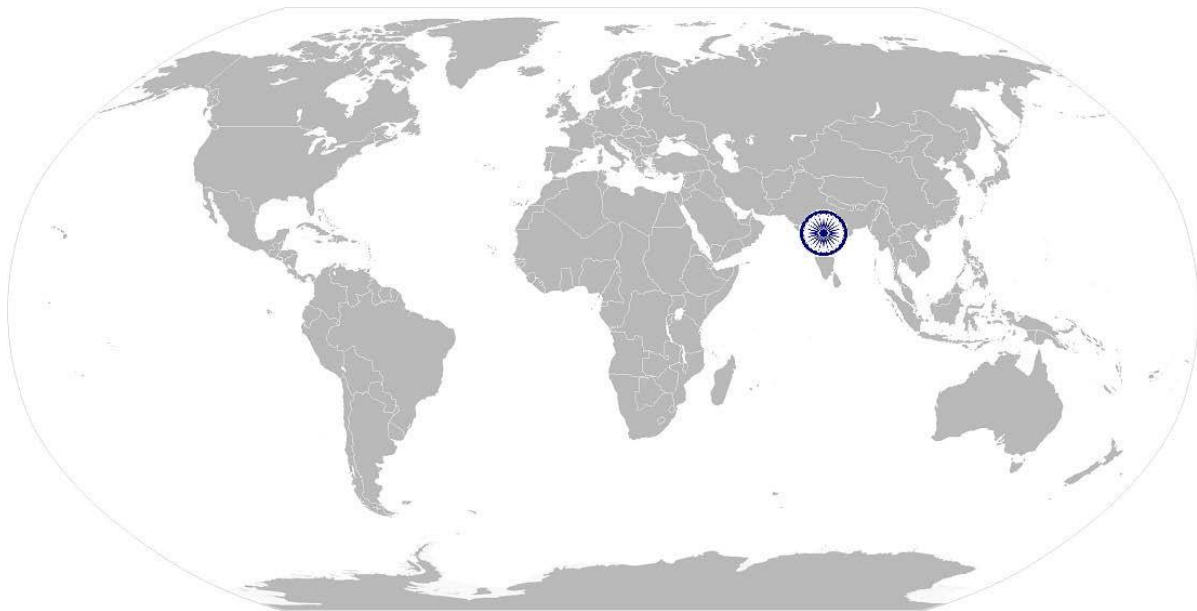| A. Core Skills/ Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: SA1. Use effective written communication protocols SA2. Communicate information (for example, facts, ideas, or messages) in a brief, clear, and organised manner SA3. Produce written information, which may include technical material, that is appropriate for the intended audience

	Reading Skills
	The user/individual on the job needs to: SA4. Understand and interpret written material, including technical materials, rules, regulations, instructions, reports, charts, graphs, or tables
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA5. Practice effective communication with colleagues and other health professionals while maintaining a professional attitude SA6. Seek out and listen to colleagues and other health professionals SA7. Express information (for example, ideas or facts) to individual or groups effectively, taking into account the audience and nature of the information
B. Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand: SB1. How to make sound, well-informed, and objective decisions SB2. How to perceive the impact and implications of decisions
	Plan and Organize
	The user/individual on the job needs to know and understand how to : SB3. Develop specific goals and plans to prioritise, organise, and accomplish work
	Customer Centricity
	The user/individual on the job needs to know and understand: SB4. How to work with clients and customers (that is, any individual who uses or receives the services or products that unit produces, including the general public, individuals who work in the agency, other agencies, or organisations outside the Government) SB5. How to assess their needs, provide information or assistance, resolves their problems, or satisfies their expectations; knows about available products and services; is committed to provide quality products and services
	Problem Solving
	The user/individual on the job needs to: SB6. Detect the fault and take corrective measures
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB7. Analyse information and use logic to address work-related issues and problems
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB8. Analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently SB9. Demonstrate the ability to adapt to rapidly changing situations, e.g.: responds appropriately to critical situations, retains composure in stressful situations, applies existing skills to new situations

NOS Version Control

NOS Code	HSS/N5604		
Credits (NSQF)	TBD	Version number	1.0
Industry	Health	Drafted on	12/05/13
Industry Sub-sector	Allied Health and Paramedics	Last reviewed on	19/07/13
Occupation	Medical Equipment Technician	Next review date	19/12/16

National Occupational Standard

Overview

This Occupational Standard describes the knowledge, understanding, skills required of an Allied Health Professional to recognise the boundaries of the role and responsibilities and working within the level of competence in accordance with legislation, protocols and guidelines.

National Occupational Standard

Unit Code	HSS/N9603
Unit Title (Task)	**Act within the limits of one's competence and authority**
Description	This OS unit is about recognizing the boundaries of the role and responsibilities and working within the level of competence in accordance with legislation, protocols and guidelines This is applicable to all Allied Health Professionals working in an organised, regulated environment
Scope	This unit/task covers the following: • Acting within the limit of one's competence and authority; 　○ Knowing one's job role 　○ Knowing one's job responsibility 　○ Recognizing the job role and responsibilities of co workers Reference: 'This National Occupational Standard is from the UK Skills for Health suite [SFHGEN63, Act within the limits of your competence and authority] It has been tailored to apply to healthcare in India and has been reproduced with their Permission'.

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

Element	Performance Criteria
	To be competent, the user/individual on the job must be able to: PC1. Adhere to legislation, protocols and guidelines relevant to one's role and field of practice PC2. Work within organisational systems and requirements as appropriate to one's role PC3. Recognise the boundary of one's role and responsibility and seek supervision when situations are beyond one's competence and authority PC4. Maintain competence within one's role and field of practice PC5. Use relevant research based protocols and guidelines as evidence to inform one's practice PC6. Promote and demonstrate good practice as an individual and as a team member at all times PC7. Identify and manage potential and actual risks to the quality and safety of practice PC8. Evaluate and reflect on the quality of one's work and make continuing improvements

Knowledge and Understanding (K)

A. **Organizational Context** (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. The relevant legislation, standards, policies, and procedures followed in the organization KA2. The medical procedures and functioning of required medical equipment KA3. Role and importance of assisting other healthcare providers in delivering care

| B. Technical Knowledge	The user/individual on the job needs to know and understand:
	 KB1. The boundaries of one's role and responsibilities and other team members
	 KB2. The reasons for working within the limits of one's competence and authority
	 KB3. The importance of personally promoting and demonstrating good practice
	 KB4. The legislation, protocols and guidelines effecting one's work
	 KB5. The organisational systems and requirements relevant to one's role
	 KB6. The sources of information that can be accessed to maintain an awareness of research and developments in one's area of work
	 KB7. The difference between direct and indirect supervision and autonomous practice, and which combination is most applicable in different circumstances
	 KB8. The risks to quality and safety arising from:
	    o Working outside the boundaries of competence and authority
	    o Not keeping up to date with best practice
	    o Poor communication
	    o Insufficient support
	    o Lack of resources
	
	 KB9. The importance of individual or team compliance with legislation, protocols, and guidelines and organisational systems and requirements
	 KB10. How to Report and minimise risks
	 KB11. The principle of meeting the organisation's needs, and how this should enable one to recognise one's own limitations and when one should seek support from others
	 KB12. The processes by which improvements to protocols/guidelines and organisational systems/requirements should be reported
	 KB13. The procedure for accessing training, learning and development needs for oneself and/or others within one's organisation
	 KB14. The actions that can be taken to ensure a current, clear and accurate understanding of roles and responsibilities is maintained, and how this affects the way one work as an individual or part of a team

Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. Document reports, task lists, and schedules SA2. Prepare status and progress reports SA3. Record daily activities SA4. Update other co-workers
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA5. Read about changes in legislations and organizational policies SA6. Keep updated with the latest knowledge
	Oral Communication (Listening and Speaking skills)

**20	P a g e**	The user/individual on the job needs to know and understand how to: SA7. Discuss task lists, schedules, and work-loads with co-workers SA8. Give clear instructions to patients and co-workers SA9. Keep patient informed about progress SA10. Avoid using jargon, slang or acronyms when communicating with a patient
B. Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to: SB1. Make decisions pertaining to the concerned area of work in relation to job role
	Plan and Organize
	Not applicable
	Customer Centricity
	The user/individual on the job needs to know and understand how to: SB2. Communicate effectively with patients and their family, physicians, and other members of the health care team SB3. Be responsive and listen empathetically to establish rapport in a way that promotes openness on issues of concern SB4. Be sensitive to potential cultural differences SB5. Maintain patient confidentiality SB6. Respect the rights of the patient(s)
	Problem Solving
	Not applicable
	Analytical Thinking
	Not applicable
	Critical Thinking
	Not applicable

NOS Version Control

NOS Code	HSS/N9603		
Credits (NSQF)	TBD	**Version number**	1.0
Industry	Health	**Drafted on**	12/05/13
Industry Sub-sector	Allied Health and Paramedics	**Last reviewed on**	24/07/13
Occupation		**Next review date**	24/12/16
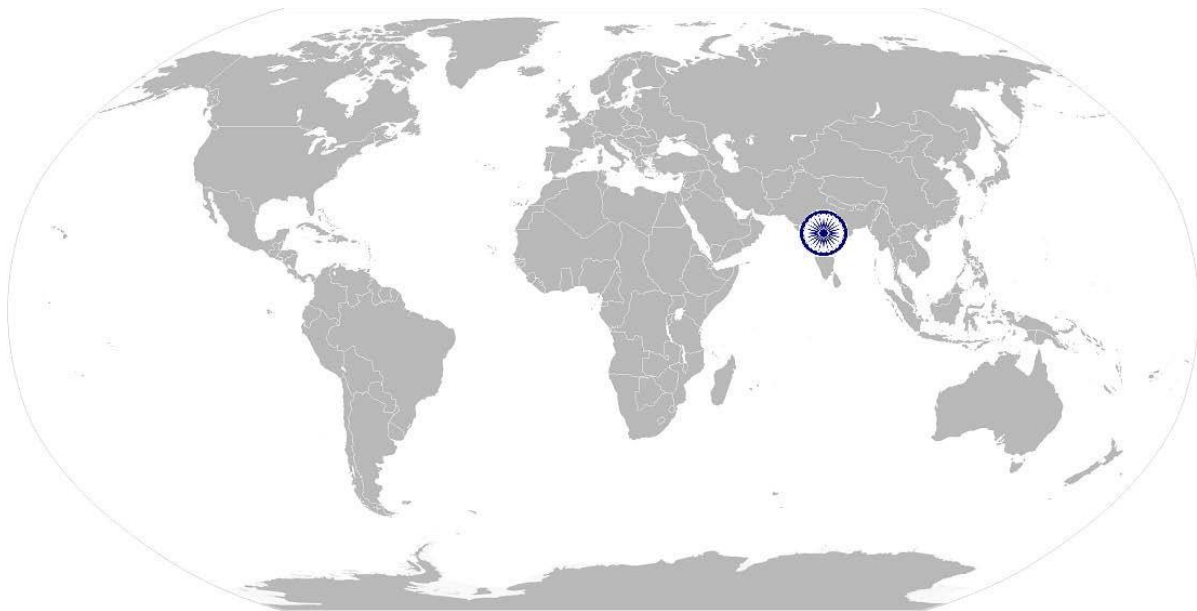
National Occupational Standard
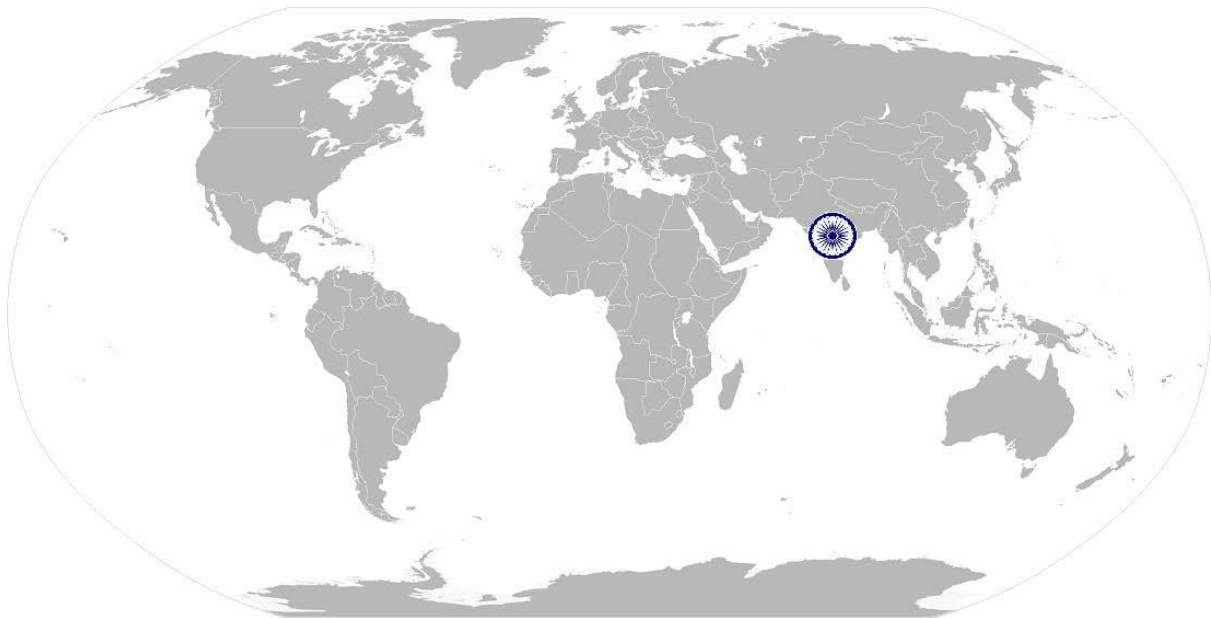
Overview

This Occupational Standard describes the knowledge, understanding, skills required of an Allied Health Professional to monitor the working environment, and making sure it meets health, safety and security requirements.

Unit Code	HSS/N9606
Unit Title (Task)	Maintain a safe, healthy, and secure working environment
Description	This OS unit is about monitoring the working environment and ensuring a safe, healthy, secure and effective working conditions This OS unit applies to all Allied Health professionals working within an organised workplace
Scope	This unit covers the following: • Complying the health, safety and security requirements and procedures for Workplace • Handling any hazardous situation with safely, competently and within the limits of authority • Reporting any hazardous situation and breach in procedures to ensure a safe, healthy, secure working environment

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

Element	Performance Criteria
	To be competent, the user/ individual on the job must be able to: PC1. Identify individual responsibilities in relation to maintaining workplace health safety and security requirements PC2. Comply with health, safety and security procedures for the workplace PC3. Report any identified breaches in health, safety, and security procedures to the designated person PC4. Identify potential hazards and breaches of safe work practices PC5. Correct any hazards that individual can deal with safely, competently and within the limits of authority PC6. Promptly and accurately report the hazards that individual is not allowed to deal with, to the relevant person and warn other people who may get affected PC7. Follow the organisation's emergency procedures promptly, calmly, and efficiently PC8. Identify and recommend opportunities for improving health, safety, and security to the designated person PC9. Complete any health and safety records legibly and accurately

Knowledge and Understanding (K)

A. Organizational Context (Knowledge of the company / organization and its processes)	To be competent, the user/ individual on the job needs to know and understand: KA1. The importance of health, safety, and security in the workplace KA2. The basic requirements of the health and safety and other legislations and regulations that apply to the workplace KA3. The person(s) responsible for maintaining healthy, safe, and secure workplace KA4. The relevant up-to-date information on health, safety, and security that applies to the workplace KA5. How to report the hazard KA6. The responsibilities of individual to maintain safe, healthy and secure workplace

B. Technical Knowledge	To be competent, the user / individual on the job needs to know and understand:
	KB1. Requirements of health, safety and security in workplace
	KB2. How to create safety records and maintaining them
	KB3. The importance of being alert to health, safety, and security hazards in the work environment
	KB4. The common health, safety, and security hazards that affect people working in an administrative role
	KB5. How to identify health, safety, and security hazards
	KB6. The importance of warning others about hazards and how to do so until the hazard is dealt with

Skills (S)		
A. Core Skills/ Generic Skills	**Writing Skills**	
	To be competent, the user/ individual on the job needs to know and understand how to: SA1. Report and record incidents	
	Reading Skills	
	To be competent, the user/ individual on the job needs to know and understand how to: SA2. Read and understand company policies and procedures	
	Oral Communication (Listening and Speaking skills)	
	To be competent, the user/ individual on the job needs to know and understand how to: SA3. Clearly report hazards and incidents with the appropriate level of urgency	
B. Professional Skills	**Decision Making**	
	To be competent, the user/ individual on the job needs to know and understand how to: SB1. Make decisions pertaining to the area of work	
	Plan and Organize	
	To be competent, the user / individual on the job needs to know and understand how to: SB2. Plan for safety of the work environment	
	Customer Centricity	
	To be competent, the user / individual on the job needs to know and understand: SB3. Communicate effectively with patients and their family, physicians, and other members of the health care team SB4. Be capable of being responsive, listen empathetically to establish rapport in a way that promotes openness on issues of concern	
	Problem Solving	
	To be competent, the user/ individual on the job needs to know and understand how to: SB8. Identify hazards, evaluate possible solutions and suggest effective solutions	

	Analytical Thinking
**25	P a g e**	To be competent, the user needs to know and understand how to: SB9. Analyse the seriousness of hazards
	Critical Thinking
	To be competent, the user needs to know and understand how to: SB10. Analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently

NOS Version Control

NOS Code	HSS/N9606		
Credits (NSQF)	TBD	**Version number**	1.0
Industry	Health	**Drafted on**	12/05/13
Industry Sub-sector	Allied Health and Paramedics	**Last reviewed on**	24/07/13
Occupation		**Next review date**	24/12/16

National Occupational Standard
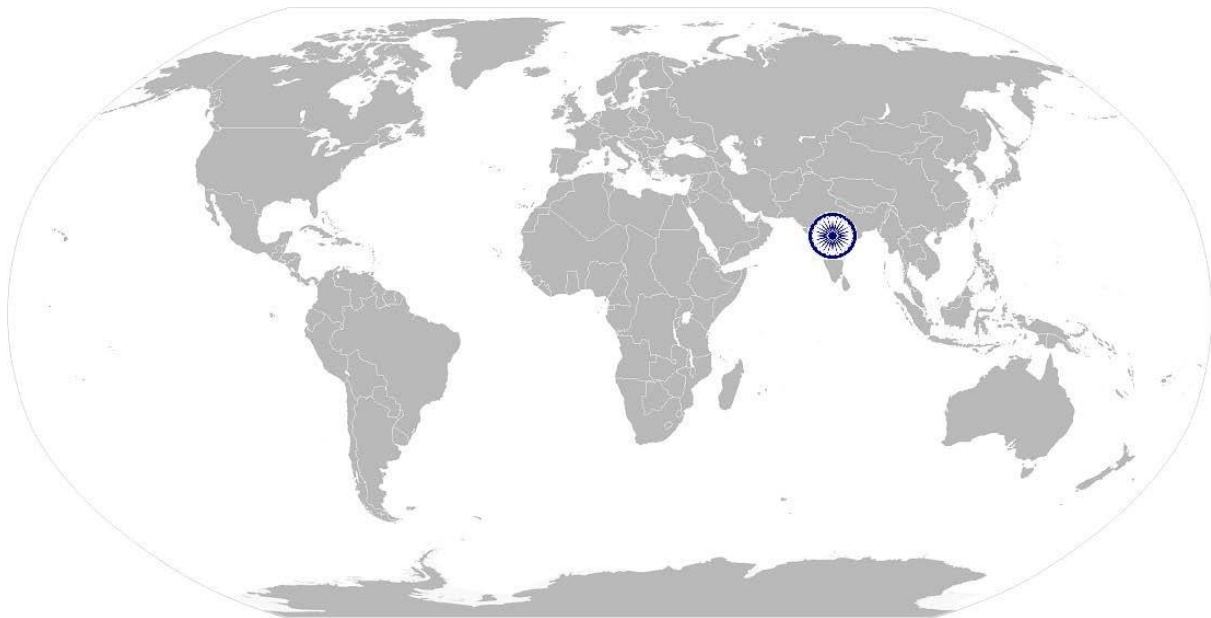
Overview

This Occupational Standard describes the knowledge, understanding and skills required of an Allied Health professional to practice code of conduct setup by the healthcare provider.

National Occupational Standard

Unit Code	HSS/N9607
Unit Title (Task)	Practice code of conduct while performing duties
Description	This OS unit is about following the rules, regulations and the code of conduct setup by the healthcare provider The Allied health professional must adhere to the protocols and guidelines relevant to the field and practice This OS unit applies to all Allied health professionals working in an organized environment and to whom specific regulations and codes of conduct apply
Scope	This unit covers the following: • Recognizing the guidelines and protocols relevant to the field and practice Following the code of conduct as described by the healthcare provider Demonstrating best practices while on the field

Performance Criteria(PC) w.r.t. the Scope	
Element	**Performance Criteria**
	To be competent, the user/individual on the job must be able to: PC1. Adhere to protocols and guidelines relevant to the role and field of practice PC2. Work within organisational systems and requirements as appropriate to the role PC3. Recognise the boundary of the role and responsibility and seek supervision when situations are beyond the competence and authority PC4. Maintain competence within the role and field of practice PC5. Use protocols and guidelines relevant to the field of practice PC6. Promote and demonstrate good practice as an individual and as a team member at all times PC7. Identify and manage potential and actual risks to the quality and patient safety PC8. Maintain personal hygiene and contribute actively to the healthcare ecosystem

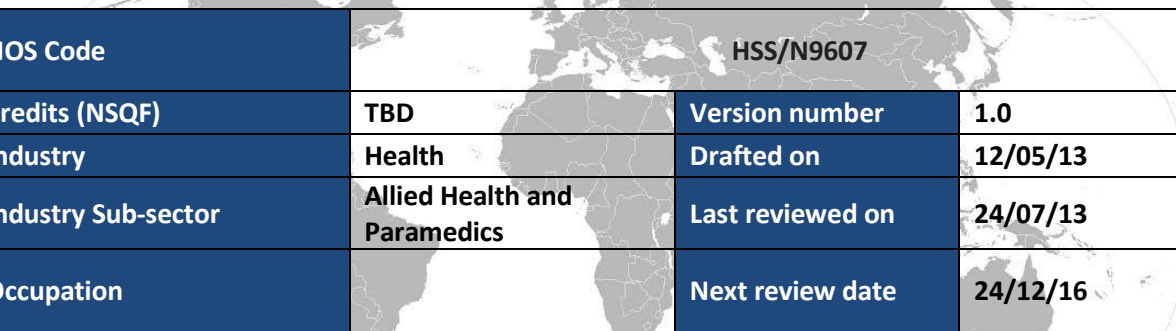| Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	To be competent, the user/ individual on the job needs to know and understand: KA1. Relevant legislation, standards, policies, and procedures followed in the hospital KA2. How to engage and interact with other providers in order to deliver quality and maintain continued care KA3. Personal hygiene measures and handling techniques
B. Technical Knowledge	To be competent, the user / individual on the job needs to know and understand: KB1. The limitations and scope of the role and responsibilities along with an understanding of roles and responsibilities of others KB2. The importance of working within the limits of one's competence and authority KB3. The detrimental effects of non-compliance KB4. The importance of personal hygiene KB5. The importance of intercommunication skills KB6. The legislation, protocols and guidelines related to the role KB7. The organisational systems and requirements relevant to the role KB8. The sources of information and literature to maintain a constant access to upcoming research and changes in the field KB9. The difference between direct and indirect supervision and autonomous

	practice, and which combination is most applicable in different circumstances
	KB10. Implications to quality and safety arising from:
	   • Working outside the boundaries of competence and authority not keeping up to date with best practice
	   • poor communication
	   • insufficient support
	   • lack of resources
	KB11. The organizational structure and the various processes related to reporting and monitoring
	KB12. The procedure for accessing training, learning and development needs

Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	To be competent, the user/ individual on the job needs to know and understand how to: SA1. Document reports, task lists, and schedules with co-workers SA2. Prepare status and progress reports related to patient care SA3. Update the physician and the other co-workers
	Reading Skills
	To be competent, the user/ individual on the job needs to know and understand how to: SA4. Read about procedures, regulations and guidelines related to the organization and the profession SA5. Keep updated with the latest knowledge by reading internal communications and legal framework changes related to roles and responsibilities
	Oral Communication (Listening and Speaking skills)
	To be competent, the user/ individual on the job needs to know and understand how to: SA6. Interact with patients SA7. Give clear instructions to patients, patients relatives and other healthcare providers SA8. Avoid using jargon, slang or acronyms, while communicating with a patient
B. Professional Skills	**Decision Making**
	To be competent, the user/ individual on the job needs to know and understand how to: SB1. Make decisions based on applicable regulations and codes of conduct when possible conflicts arise SB2. Act decisively by balancing protocols and work at hand
	Plan and Organize
	Not applicable
	Customer Centricity
	To be competent, the user / individual on the job needs to know and understand how to: SB3. Communicate effectively with patients and their family, physicians, and other members of the health care team SB4. Maintain patient confidentiality

	SB5. Respect the rights of the patient(s) SB6. Respond patients' queries and concerns SB7. Maintain personal hygiene to enhance patient safety
	Problem Solving
	Not applicable
	Analytical Thinking
	Not applicable
	Critical Thinking
	Not applicable

NOS Version Control

NOS Code		HSS/N9607	
Credits (NSQF)	TBD	**Version number**	1.0
Industry	Health	**Drafted on**	12/05/13
Industry Sub-sector	Allied Health and Paramedics	**Last reviewed on**	24/07/13
Occupation		**Next review date**	24/12/16

CRITERIA FOR ASSESSMENT OF TRAINEES
Job Role   Medical Equipment Technician
Qualification Pack HSS/Q5601
Sector Skill Council Healthcare Sector Skill Council **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 as per assessment grid. 6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

Grand Total-1 (Subject Domain)	400
Grand Total-2 (Soft Skills and Communication)	100
Grand Total-(Skills Practical and Viva)	500
Passing Marks (80% of Max. Marks)	400
Grand Total-1 (Subject Domain)	80
Grand Total-2 (Soft Skills and Communication)	20
Grand Total-(Theory)	100
Passing Marks (50% of Max. Marks)	50
Grand Total-(Skills Practical and Viva + Theory)	600

				Marks Allocation	
Final Result				**Criteria is to pass in both theory and practical individually. If fail in any one of them, then candidate is fail**	
Detailed Break Up of Marks				**Skills Practical & Viva**	
Subject Domain				**Pick any 2 NOS each of 200 marks totaling 400**	
Assessable Outcomes	**Assessment Criteria for the Assessable Outcomes**	**Total Marks (400)**	**Out Of**	**Viva**	**Skills Practical**
1.HSS / N 5601: Deliver and set-up medical equipment	PC1. Deliver and set up, or coordinate with hospital staff	**200**	50	15	35
	PC2. Ensure that all required equipment and item(s) are delivered in a timely manner as agreed upon by the supplier, and prescribing physician		50	15	35
	PC3. Ensure that all equipment and item(s) delivered to the hospital is consistent with the prescribing physician's order, needs, and limitations		20	5	15
	PC4. Provide all equipment and item(s) that are necessary to operate the equipment		30	10	20
	PC5. Perform further adjustments as applicable		50	15	35
	Total		200	60	140
2.HSS / N 5602: Train and educate hospital staff	PC1. Provide, or coordinate the provision of, appropriate information related to the set-up, features, routine use, trouble shooting, cleaning, and maintenance of all equipment provided	**200**	45	10	35
	PC2. Provide relevant information and/or instructions about infection control issues related to the use of all equipment provided		45	10	35
	PC3. Ensure that the hospital staff can use all equipment provided safely and effectively		30	5	25
	PC4. Make sure training and instructions provided to the hospital staff shall commensurate with the risks, complexity, and manufacturer's instructions and/or specifications for the equipment		40	10	30
	PC5. Document all training and communication in the providers record, including the date, time, and signature of the person providing the service		40	10	30
	Total		200	45	155
3.HSS / N 5603:	PC1. Test and calibrate parts and equipment	**200**	50	15	35

Calibrate and help in equipment maintenance	PC2. Calibrated equipment according to the manufacturer's recommendations, study protocols		40	10	30
	PC3. Maintain calibration record for the equipment		25	5	20
	PC4. Maintain the Calibration sheet for inspection by the regulatory authorities and other relevant authorities		25	5	20
	PC5. Help in equipment maintenance		30	5	25
	PC6. Keep records of maintenance and repairs		30	5	25
	Total		200	45	155
4.HSS/ N 5604: Provide on-call and on-site assistance	PC1. Provide on call assistance by giving instruction	**200**	30	10	20
	PC2. Provide technical assistance and instructions to hospital staff regarding the fault if applicable		30	10	20
	PC3. Diagnose and correct system and equipment malfunctions if fault is there		30	10	20
	PC4. Test, evaluate, and classify excess or in-use medical equipment and determine serviceability, condition, and disposition, in accordance with regulations		30	10	20
	PC5. Examine medical equipment or facility's structural environment and check for proper use of equipment to protect patients and staff from electrical or mechanical hazards and to ensure compliance with safety regulations		30	10	20
	PC6. Study technical manuals or attend training sessions provided by equipment manufacturers to maintain current knowledge		25	15	10
	PC7. Explain or demonstrate correct operation or preventive maintenance of medical equipment to personnel.		25	5	20
	Total		200	70	130

Soft Skills and Communication	**Pick one field from part 1 randomly and pick one field from part 2 each carrying 50 marks totaling 100**

Assessable Outcomes	**Assessment Criteria for the Assessable Outcomes**	**Total Marks (100)**	**Out Of**	**Marks Allocation**	
				Viva	**Observation/ Role Play**
Part 1 (Pick one field randomly carrying 50 marks)					
1. Attitude					
HSS/ N 9603 (Act within the limits of	PC1. Adhere to legislation, protocols and guidelines relevant to one's role and field of practice	**30**	2	0	2

one's competence and authority)	PC2. Work within organisational systems and requirements as appropriate to one's role		2	0	2
	PC3. Recognise the boundary of one's role and responsibility and seek supervision when situations are beyond one's competence and authority		8	4	4
	PC4. Maintain competence within one's role and field of practice		2	0	2
	PC5. Use relevant research based protocols and guidelines as evidence to inform one's practice		4	2	2
	PC6. Promote and demonstrate good practice as an individual and as a team member at all times		4	2	2
	PC7. Identify and manage potential and actual risks to the quality and safety of practice		4	2	2
	PC8. Evaluate and reflect on the quality of one's work and make continuing improvements		4	2	2
			30	12	18
HSS/ N 9607 (Practice Code of conduct while performing duties)	PC1. Adhere to protocols and guidelines relevant to the role and field of practice		3	1	2
	PC2. Work within organisational systems and requirements as appropriate to the role		3	1	2
	PC3. Recognise the boundary of the role and responsibility and seek supervision when situations are beyond the competence and authority		3	1	2
	PC4. Maintain competence within the role and field of practice	**20**	1	0	1
	PC5. Use protocols and guidelines relevant to the field of practice		4	2	2
	PC6. Promote and demonstrate good practice as an individual and as a team member at all times		1	0	1
	PC7. Identify and manage potential and actual risks to the quality and patient safety		1	0	1
	PC8. Maintain personal hygiene and contribute actively to the healthcare ecosystem		4	2	2
			20	7	13
Total		**50**	50	19	31
Part 2 (Pick one field as per NOS marked carrying 50 marks)					
1. Safety management					
HSS/ N 9606 (Maintain a safe, healthy, and secure working environment)	PC1. Identify individual responsibilities in relation to maintaining workplace health safety and security requirements	**50**	6	2	4
	PC2. Comply with health, safety and security procedures for the workplace		4	0	4

	PC3. Report any identified breaches in health, safety, and security procedures to the designated person	4	3	1
	PC4. Identify potential hazards and breaches of safe work practices	6	4	2
	PC5. Correct any hazards that individual can deal with safely, competently and within the limits of authority	6	4	2
	PC6. Promptly and accurately report the hazards that individual is not allowed to deal with, to the relevant person and warn other people who may get affected	6	4	2
	PC7. Follow the organisation's emergency procedures promptly, calmly, and efficiently	6	2	4
	PC8. Identify and recommend opportunities for improving health, safety, and security to the designated person	6	4	2
	PC9. Complete any health and safety records legibly and accurately	6	2	4
		50	25	25

Detailed Break Up of Marks	Theory
Subject Domain	**Pick all PCs of all NOS totaling 80**

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (80)	Marks Allocation
			Theory
1.HSS / N 5601: Deliver and set-up medical equipment	PC1. Deliver and set up, or coordinate with hospital staff	16	4
	PC2. Ensure that all required equipment and item(s) are delivered in a timely manner as agreed upon by the supplier, and prescribing physician		4
	PC3. Ensure that all equipment and item(s) delivered to the hospital is consistent with the prescribing physician's order, needs, and limitations		2
	PC4. Provide all equipment and item(s) that are necessary to operate the equipment		2
	PC5. Perform further adjustments as applicable		4
Total			16

2.HSS / N 5602: Train and educate hospital staff	PC1. Provide, or coordinate the provision of, appropriate information related to the set-up, features, routine use, trouble shooting, cleaning, and maintenance of all equipment provided		4
	PC2. Provide relevant information and/or instructions about infection control issues related to the use of all equipment provided		4
	PC3. Ensure that the hospital staff can use all equipment provided safely and effectively	**18**	2
	PC4. Make sure training and instructions provided to the hospital staff shall commensurate with the risks, complexity, and manufacturer's instructions and/or specifications for the equipment		4
	PC5. Document all training and communication in the providers record, including the date, time, and signature of the person providing the service		4
	Total		18
3.HSS / N 5603: Calibrate and help in equipment maintenance	PC1. Test and calibrate parts and equipment		4
	PC2. Calibrated equipment according to the manufacturer's recommendations, study protocols		4
	PC3. Maintain calibration record for the equipment	**24**	4
	PC4. Maintain the Calibration sheet for inspection by the regulatory authorities and other relevant authorities		4
	PC5. Help in equipment maintenance		4
	PC6. Keep records of maintenance and repairs		4
	Total		24
4.HSS/ N 5604: Provide on-call and on-site assistance	PC1. Provide on call assistance by giving instruction		2
	PC2. Provide technical assistance and instructions to hospital staff regarding the fault if applicable		2
	PC3. Diagnose and correct system and equipment malfunctions if fault is there		4
	PC4. Test, evaluate, and classify excess or in-use medical equipment and determine serviceability, condition, and disposition, in accordance with regulations	**22**	4
	PC5. Examine medical equipment or facility's structural environment and check for proper use of equipment to protect patients and staff from electrical or mechanical hazards and to ensure compliance with safety regulations		4

	PC6. Study technical manuals or attend training sessions provided by equipment manufacturers to maintain current knowledge		2
	PC7. Explain or demonstrate correct operation or preventive maintenance of medical equipment to personnel.		4
	Total		22

Soft Skills and Communication		**Select each part each carrying 10 marks totaling 20**	

Assessable Outcomes	Assessment Criteria for the Assessable Outcomes	Total Marks (20)	Marks Allocation
			Theory
Part 1 (Pick one field randomly carrying 50 marks)			
1. Attitude			
HSS/ N 9603 (Act within the limits of one's competence and authority)	PC1. Adhere to legislation, protocols and guidelines relevant to one's role and field of practice	**6**	6
	PC2. Work within organisational systems and requirements as appropriate to one's role		
	PC3. Recognise the boundary of one's role and responsibility and seek supervision when situations are beyond one's competence and authority		
	PC4. Maintain competence within one's role and field of practice		
	PC5. Use relevant research based protocols and guidelines as evidence to inform one's practice		
	PC6. Promote and demonstrate good practice as an individual and as a team member at all times		
	PC7. Identify and manage potential and actual risks to the quality and safety of practice		
	PC8. Evaluate and reflect on the quality of one's work and make continuing improvements		
	Total		6
HSS/ N 9607 (Practice Code of conduct while performing duties)	PC1. Adhere to protocols and guidelines relevant to the role and field of practice	**4**	4
	PC2. Work within organisational systems and requirements as appropriate to the role		

	PC3. Recognise the boundary of the role and responsibility and seek supervision when situations are beyond the competence and authority		
	PC4. Maintain competence within the role and field of practice		
	PC5. Use protocols and guidelines relevant to the field of practice		
	PC6. Promote and demonstrate good practice as an individual and as a team member at all times		
	PC7. Identify and manage potential and actual risks to the quality and patient safety		
	PC8. Maintain personal hygiene and contribute actively to the healthcare ecosystem		
Total			4
Attitude Total		**4**	10
Part 1 Total		**10**	10

Part 2 (Pick one field as per NOS marked carrying 50 marks)

2. Safety management

HSS/ N 9606 (Maintain a safe, healthy, and secure working environment)	PC1. Identify individual responsibilities in relation to maintaining workplace health safety and security requirements		
	PC2. Comply with health, safety and security procedures for the workplace		
	PC3. Report any identified breaches in health, safety, and security procedures to the designated person		
	PC4. Identify potential hazards and breaches of safe work practices		
	PC5. Correct any hazards that individual can deal with safely, competently and within the limits of authority	**10**	10
	PC6. Promptly and accurately report the hazards that individual is not allowed to deal with, to the relevant person and warn other people who may get affected		
	PC7. Follow the organisation's emergency procedures promptly, calmly, and efficiently		
	PC8. Identify and recommend opportunities for improving health, safety, and security to the designated person		
	PC9. Complete any health and safety records legibly and accurately		
Total			10
Part 2 Total		**10**	10