Model Curriculum

22. Technician-Instrumentation

SECTOR: CAPITAL GOODS
SUB-SECTOR: MACHINE TOOLS, TEXTILE MANUFACTURING MCHINERY PROCESS PLANT MACHINERY, ELECTRICAL AND POWER MACHINERY, PLASTIC MANUFACTURING MACHINERY, LIGHT ENGINEERING GOODS

OCCUPATION: Calibration and Instrumentation
REF ID: CSC/Q0802, V1.0
NSQF LEVEL: 4

Skill India
कौशल भारत-कुशल भारत

CGSC
CAPITAL GOODS SKILL COUNCIL

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CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

CAPITAL GOODS SKILL COUNCIL

for the

MODEL CURRICULUM

Complying to National Occupational Standards of
Job Role/ Qualification Pack: **'Technician Instrumentation'** QP No. **'CSC/ Q0802, NSQF Level 4'**

Date of Issuance: April 10th, 2014
Valid up to : August 30th, 2016
**Valid up to the next review date of the Qualification Pack or the 'Valid up to' date mentioned above (whichever is earlier)*

Authorised Signatory
Tourism & Hospitality Skill Council

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Technician-Instrumentation

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a "Technician-Instrumentation", in the "Capital Goods" Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	**Technician-Instrumentation**		
Qualification Pack Name & Reference ID. ID	CSC/Q0802, v1.0		
Version No.	1.0	**Version Update Date**	
Pre-requisites to Training	Diploma-Mechanical, Electrical, Electronics/Mechatronics Experience of 1 year in manufacturing (Capital goods)		
Training Outcomes	**After completing this programme, participants will be able to:** • **Calibrate hydraulic, pneumatic and mechanical measuring and control equipment:** setting, adjustment, validation or verification of mechanical, pneumatic, hydraulic, measuring and control instruments using reference standards in accordance with predetermined procedures. • **Calibrate electrical and electronic measuring and control equipment:** setting, adjustment, validation or verification of electrical, electronic measuring and control instruments using reference standards in accordance with predetermined procedures. • **Carryout maintenance activities on instrumentation and control panel:** maintenance activities of measuring and control process equipment, in accordance with approved procedures • **Basic health and safety practices at the workplace:** identify risks and hazards at workplace, use of PPE, and apply good housekeeping practices, etc., • **Work effectively with others:** effectively communicate with others and demonstrate good ethical practices and discipline.		

This course encompasses 5 out of 5 National Occupational Standards (NOS) of "Technician Instrumentation" Qualification Pack issued by "Capital Goods Skill Council".

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	**Calibrate Hydraulic, Mechanical and Pneumatic Measuring Control Equipment** **Theory Duration** (hh:mm) 40:00 **Practical Duration** (hh:mm) 80:00 **Corresponding NOS Code** CSC/N0801	• Define the term 'Calibration' • Explain the need for calibration of measuring equipment • Explain standards and requirements applicable to the measuring equipment • Explain instrumentation principles such as controlling density, level, flow, temperature and composition of range of materials • State principles of hydraulic and pneumatic flow • Interpret standard operating procedures for calibration • Identify tools and equipment required for calibration • Identify various types of measuring instruments • Explain the principle of operation of various measuring instruments and identify major parts of measuring instruments • List hazards and controls associated with calibration • Interpret the specification of instrumentation system • State procedures for recording / documenting test and calibration results • Interpret tolerance levels for calibration • Identify Personal Protective Equipment required for Calibration • Explain statistical control methods • Prepare and update relevant testing/calibration schedules and plans • Carryout testing/ calibration activities as per the sequence like visual inspection, Serviceability tests/calibration, Special-to –type tests, Operational/functional checks, Gauge repeatability and reliability tests • Inspect and test the operation of instruments and systems to diagnose faults using testing devices • Evaluate suitable test procedures and application principles in assessing operation of instrumentation system/ equipment/component • Analyze and verify test results against operational specifications to identify faults	Training Kit (PowerPoint, Trainer Guide) Load cells, strain gauges, transducers, mechanical governors, pressure gauges, micrometers, jigs and fixtures, templates and patterns, insulation testers, vernier calliper, dead weight tester, manometers, gyroscope, screw driver, testers etc.

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		• Evaluate faulty conditions and plan for corrective actions • Calibrate equipment against appropriate physical standards using correct calibration tools, equipment, techniques using predetermined procedures • Undertake zero, span and range checks on indicators/controllers using correct and appropriate configuration	
2	**Calibrate Electrical and Electronic Measuring and Control Equipment** **Theory Duration** (hh:mm) 40:00 **Practical Duration** (hh:mm) 80:00 **Corresponding NOS Code** CSC/N0802	• Identify various components like sensors, transmitters, converters, indicators, analyzers, controllers, power supplies, removable circuit boards etc. • Identify sensor units associated with determining/ controlling density, level, flow, temperature, composition etc. • Define current, voltage, resistance, impedance, capacitance, inductance etc. • Explain the effects of resistance and impedance and capacitance in RLC circuit • Read wiring diagrams and circuits • Follow suggested safety practices • Identify Personal Protective Equipment required • List tools and equipment required for calibration • Explain techniques of calibration • Read operational specifications of the instrumentation system/ equipment • State sequence of events to be undertaken to correct faults in instrumentation system/ equipment • Check components, leads, fasteners, etc. for wear, loose connections or other faults • Prepare and update relevant testing/calibration schedules and plans • Carry out the testing/calibration activities in the specified sequence and in an agreed timescale – Visual inspection, standard serviceability test/calibration, equipment self diagnostic test, leak/pressure test, signal injection tests, soak test, special – to- type tests, signal measurement and transmission, operational/functional checks, five point calibration • Inspect and test the operation of instruments and systems to diagnose faults using testing devices • Identify common faults associated with measuring instruments	Training Kit (PowerPoint, Trainer Guide) Sensors, transmitters, converters, indicators, analyzers, controllers, power supplies, removable circuit boards,, absolute gauge, orifice plate, venturi tube, pressure cell, load cells, thermo couples, fiscal metering equipment, speed control equipment, speed measurement equipment, vibration switches, proximity probes, linear variable differential transducer, oxygen analyzer, telemetry systems, potentiometer, Multimeter,cathode ray oscilloscope

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		• Analyse and verify test results against operational specifications to identify and localise faults • Calibrate equipment against appropriate physical standards using correct calibration tools, equipment, techniques using predetermined procedures	
3	**Carryout Maintenance Activities on Instrumentation and Control Equipment** **Theory Duration** (hh:mm) 40:00 **Practical Duration** (hh:mm) 60:00 **Corresponding NOS Code** **CSC/N0803**	• Explain basic principles and functioning of control equipment – pressure, flow, level, temperature, weight, fiscal metering, detection &alarm, speed measurement, vibration monitoring, switches, analyzers, recorder and indicators, telemetry systems, valves and mechanisms • Interpret drawings, specifications and manufacturer's manual • Identify and select instrument sensors-markings, calibration information, component values, operating parameters and working range • Explain the importance of PDCA (Plan, Do, Check and Act) in problem solving • Create or update Standard Operating Procedure (SOP) • State the methods to communicate information through visual control system –Card system, color coding, floor foot prints, graphs, charts, tool /equipment shadow boards • Describe care and maintenance and handling and application of instrumentation test instruments • Check the instruments for calibration details and defects • State precautions to avoid electrostatic discharge damage to electronic components and circuits • Identify required Personal Protective Equipment to carryout maintenance activities on instrumentation and control equipment • Explain the functioning of process plants, measuring and control equipment • Use of various aids and reports available for fault diagnosis –logic diagrams, fault analysis charts, flow charts or algorithms, manufacturer's manual, probability charts, troubleshooting guides and electronic	Same as above

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		guides • Explain the functioning of fault diagnostic equipment – oscilloscope, pressure gauge, temperature controller, micrometer, vernier calliper, voltmeter, comparator, templates and patterns, insulation tester, temperature baths, standard test gauges, calibrated weights, current injection device, pressure sources, logic probes, flow meters, system calibrations, pH simulators, Wheatstone bridge, potentiometer, signal generator, cathode ray oscilloscope etc. • State the method to evaluate sensory conditions • Prepare and update maintenance schedules and plans • Evaluate hazards associated with carrying out mechanical maintenance activities • Check that all tools, equipment , power tool cables, extension leads are in a safe and usable condition • Adhere to procedures and guidelines and other relevant safety regulations • Carryout maintenance activities by using suitable technique on a range of instrumentation and control equipment • Use units and number systems to express degree of accuracy • Interpret tables and graphs to determine intermediate and extrapolated values • Convert between various angular units such as degrees, minutes, seconds, gradians, radians etc. • Interpret various systems of measurements and list SI units for basic quantities • Complete documentation accurately • Dispose of waste materials in accordance with safe working practices • Fill up appropriate forms, process charts, activity logs • Perform numerical operations and calculations • Perform basic operations in a computer • Use basic office applications like spread sheet, word processor, presentations • Demonstrate problem solving skills • Work in a team to achieve better results • Apply, analyze, and evaluate the information gathered from observation,	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		experience, reasoning, or communication, as a guide to thought and action	
4	**Health and safety** **Theory Duration** (hh:mm) 10:00 **Practical Duration** (hh:mm) 08:00 **Corresponding NOS Code** CSC/N1335	• Explain the importance of personal protective equipment (PPE) required for gas cutting operation • State the causes for accidents • Identify job site hazardous work and state possible causes of risk or accident at the workplace • Explain the importance of '5S' at the workplace	Training kit (Trainer guide, PowerPoint) Leather gloves, leather apron, welding screen – helmet types, hand screen welding and safety shoes
5	**Fire Safety** **Theory Duration** (hh:mm) 05:00 **Practical Duration** (hh:mm) 30:00 **Corresponding NOS Code** CSC/N1335	• Explain types of fires - Class A, B, C and D • Select appropriate fire extinguisher to control fire • Use PASS method to operate a fire extinguisher • Follow fire safety signs and safe evacuation method in case of a fire • Identify the location of assembly point, fire exit, fire alarm • Follow reporting procedure in case of a fire	Training kit (Trainer guide, PowerPoint) Class A, B, C, D and K fire extinguishers
6	**Emergencies, rescue and first aid procedure** **Theory Duration** (hh:mm) 09:00 **Practical Duration** (hh:mm) 18:00 **Corresponding NOS Code** CSC/N1335	• Follow electrical safety procedures • Use approved method to rescue a person from electrocution • State the importance of first aid • Identify the contents of a first aid kit and their application • Administer first aid in case of bleeding, burns, choking, electrical shock, poisoning, etc. • Use of CPR process • Bandage wounds • Explain stages of crisis and crisis management • Prepare an incident report	Training kit (Trainer guide, PowerPoint) First aid kit with all contents
7	**Work effectively with others** **Theory Duration** (hh:mm) 20:00	• Explain the importance of team work and team dynamics • State 4Cs of working in a team • Explain types of communication • Apply effective communication technique	Training kit (Trainer guide, PowerPoint)

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Practical Duration (hh:mm) 60:00 **Corresponding NOS Code** CSC/N1336	• Overcome barriers to effective communication • Demonstrate active listening skills • Demonstrate good customer service skills • Explain the importance of ethical behaviour in your day-to-day work • State the importance of discipline in life and apply the same at workplace	
8	**Final Assessment** **Theory Duration** (hh:mm) 04:00 **Practical Duration** (hh:mm) 06:00 **Corresponding NOS Code**	• To test skills and knowledge	
	Total Duration **Theory Duration** **168:00** **Practical Duration** **342:00**	**Unique Equipment Required:** Load cells, strain gauges, transducers, mechanical governors, pressure gauges, micrometers, jigs and fixtures, templates and patterns, insulation testers, vernier calliper, dead weight tester, manometers, gyroscope, screw driver, testers, Sensors, transmitters, converters, indicators, analyzers, controllers, power supplies, removable circuit boards,, absolute gauge, orifice plate, venturi tube, pressure cell, load cells, thermo couples, fiscal metering equipment, speed control equipment, speed measurement equipment, vibration switches, proximity probes, linear variable differential transducer, oxygen analyzer, telemetry systems, potentiometer, Multimeter,cathode ray oscilloscope, Personal Protective Equipment .	

Grand Total Course Duration: **410 Hours, 0 Minutes**

*(This syllabus/ curriculum has been approved by **Capital Goods Skill Council**)*

Trainer Prerequisites for Job role: "Technician -Instrumentation" mapped to Qualification Pack: "CSC/Q0802 v1.0"

Sr. No.	Area	Details
1	**Description**	Perform maintenance activities of measuring and control process equipment and calibration and testing of measuring and control Equipment for correct operation in accordance with approved procedures.
2	**Personal Attributes**	Basic communication, numerical and computational abilities. Openness to learning, ability to plan and organize own work and identify and solve problems in the course of working. Understanding the need to take initiative and manage self and work to improve efficiency and effectiveness.
3	**Minimum Educational Qualifications**	Degree in Mechanical Engineering
4a	**Domain Certification**	Certified for Job Role: "Technician-Instrumentation" mapped to QP: "CSC/Q0802, v1.0". Minimum accepted score is 80%
4b	**Platform Certification**	Recommended that the Trainer is certified for the Job Role: "Trainer", mapped to the Qualification Pack: "SSC/Q1402". Minimum accepted 70 % as per respective SSC guidelines is 70%.
5	**Experience**	• 3-4 years of industry experience in the relevant field • 3-4 years of teaching experience

Annexure: Assessment Criteria

Assessment Criteria	
Job Role	Technician –Instrumentation
Qualification Pack	CSC/Q0802, v1.0
Sector Skill Council	Capital Goods Skill Council

Sr. No.	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 centre(as per assessment criteria below)
4	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training canter based on this criteria
5	To pass the Qualification Pack, every trainee should score a minimum of 60% in aggregate and 40% in each NOS
6	The marks are allocated PC wise; however, every NOS will carry a weight age in the total marks allocated to the specific QP

Assessable Outcome	Assessment Criteria	Total Mark (500)	Out Of	Marks Allocation	
				Theory	Skills Practical
1.CSC/No801 Calibrate hydraulic, pneumatic and mechanical measuring and control equipment	PC1.comply with health and safety, environmental and other relevant regulations and guidelines at work	**100**	3	1	2
	PC2.adhere to procedures and guidelines for personal protective equipment (PPE) and other relevant safety regulations while performing calibration operations		3	1	2
	PC3.work following laid down procedures and instructions		3	1	2
	PC4.ensure work area is clean and safe from hazards		2	0	2
	PC5.ensure that all tools, equipment, power tool cables, extension leads are in a safe and usable condition		2	0	2
	PC6.check components, leads, fasteners, etc. for wear, loose connections or other faults		3	0	3
	PC7.prepare and update relevant testing/calibration schedules and plans		3	0	3
	PC8.carry out the testing/calibration activities in the specified sequence and in an agreed timescale		5	2	3
	PC9.identify work/test requirements and define are per standard operating procedures		4	2	2
	PC10.inspect and test the operation of instruments and systems to diagnose faults using testing devices		4	1	3
	PC11.select correct test application principles after inspection of instrumentation systems, equipment/components		5	2	3
	PC12.select appropriate test equipment in accordance with defined requirements		3	1	2
	PC13.observe device isolation methods/requirements and localize		3	0	3
	PC14.apply appropriate test procedures and application principles in assessing operation of instrumentation systems, equipment/components		5	1	4
	PC15.report any instances where the testing/calibration activities cannot be fully met or where there are identified defects outside the planned schedule		2	0	2
	PC16.complete relevant testing/calibration documentation accurately		2	0	2
	PC17.analyse and verify test results against operational specifications to identify and localise faults		4	1	3
	PC18.report potential and real faults using standard operating procedures		4	1	3
	PC19.evaluate faulty conditions and plan corrective action		4	1	3
	PC20.record action plan and document according to		3	1	2

Assessable Outcome	Assessment Criteria	Total Mark (500)	Out Of	Marks Allocation	
				Theory	Skills Practical
	standard operating procedures				
	PC21.assess calibration of measuring and control equipment to manufacturers'		6	2	4
	PC22.calibrate equipment against appropriate physical standards using correct calibration tools, equipment, techniques using predetermined procedures		5	2	3
	PC23.undertake zero, span and range checks on indicators/controllers using correct and appropriate configuration		5	2	3
	PC24.perform methods of adjustment using calibration devices and document prescribed procedures and operational specifications		5	2	3
	PC25.re-commission equipment in accordance with standard operating procedures		4	1	3
	PC26.obtain help or advice from specialist if the problem is outside his/her area of competence or experience		3	0	3
	PC27.monitor the problem and keep the supervisor informed about progress or any delays in resolving the problem		2	0	2
	PC28.complete documentation post operations as per organizational procedures		3	1	2
	Total		**100**	**26**	**74**
2.CSC/N0802 Calibrate electrical and electronic measuring and control equipment	PC1.comply with health and safety, environmental and other relevant regulations and guidelines at work	**100**	3	1	2
	PC2.adhere to procedures and guidelines for personal protective equipment (PPE) and other relevant safety regulations while performing calibration operations		3	1	2
	PC3.work following laid down procedures and instructions		3	1	2
	PC4.ensure work area is clean and safe from hazards		2	0	2
	PC5.ensure that all tools, equipment, power tool cables, extension leads are in a safe and usable condition		2	0	2
	PC6.check components, leads, fasteners, etc. for wear, loose connections or other faults		3	0	3
	PC7.prepare and update relevant testing/calibration schedules and plans		3	0	3
	PC8.carry out the testing/calibration activities in the specified sequence and in an agreed timescale		5	2	3
	PC9.identify work/test requirements and define are per standard operating procedures		4	2	2
	PC10.inspect and test the operation of instruments and systems to diagnose faults using testing devices		4	1	3
	PC11.select correct test application principles after inspection of instrumentation		5	2	3
	PC12.select appropriate test equipment in accordance		3	1	2

Assessable Outcome	Assessment Criteria	Total Mark (500)	Out Of	Marks Allocation	
				Theory	Skills Practical
	with defined requirements				
	PC13.ensure appropriate device isolation methods/requirements are observed		4	1	3
	PC14.apply appropriate test procedures and application principles in testing the operation of instrumentation systems, equipment/components		4	1	3
	PC15.report any instances where the testing/calibration activities cannot be fully met or where there are identified defects outside the planned schedule		2	0	2
	PC16.complete relevant testing/calibration documentation accurately		2	0	2
	PC17.analyse and verify test results against operational specifications to identify and localise faults		4	1	3
	PC18.report potential and real faults using standard operating procedures		4	1	3
	PC19.evaluate faulty conditions and plan corrective action		4	1	3
	PC20.record action plan and document according to standard operating procedures		3	1	2
	PC21.assess calibration of measuring and control equipment to manufacturer's specifications and/or standard operating procedures		4	1	3
	PC22.calibrate equipment against appropriate physical standards using correct calibration tools, equipment, techniques using predetermined procedures		6	2	4
	PC23.undertake zero, span and range checks on indicators/controllers using correct and appropriate configuration		4	1	3
	PC24.perform methods of adjustment using calibration devices and document prescribed procedures and operational specifications		5	2	3
	PC25.re-commission equipment in accordance with standard operating procedures		3	1	2
	PC26.refer the problem to a competent internal/external specialist if it cannot be resolved		3	0	3
	PC27.obtain help or advice from specialist if the problem is outside his/her area of competence or experience		3	0	3
	PC28.monitor the problem and keep the supervisor informed about progress or any delays in resolving the problem		2	0	2
	PC29.complete documentation post operations as per organizational procedures		3	1	2
	Total		**100**	**25**	**75**
3.CSC/N0803	PC1.comply with health and safety, environmental		6	2	4

Assessable Outcome	Assessment Criteria	Total Mark (500)	Out Of	Marks Allocation	
				Theory	Skills Practical
Carry out maintenance activities on instrumentation and control equipment	and other relevant regulations and guidelines at work				
	PC2.adhere to procedures and guidelines for personal protective equipment (PPE) and other relevant safety regulations while performing instrumentation operations		7	2	5
	PC3.ensure work area is clean and safe from hazards		4	0	4
	PC4.ensure that all tools, equipment, power tool cables, extension leads are in a safe and usable condition		4	0	4
	PC5.obtain and use the correct version of company and/or manufacturer's drawings and maintenance documentation		7	2	5
	PC6.produce and update relevant maintenance schedules and plans		6	0	6
	PC7.carry out the maintenance activities by appropriate techniques & procedures on a range of instrumentation and control equipment		8	2	6
	PC8.re-connect and return the system to service on completion of activities		5	0	5
	PC9.conduct maintenance activities within the limits of their personal authority		6	2	4
	PC10.carry out the maintenance activities in the specified sequence and in an agreed timescale		6	2	4
	PC11.report any instances where the maintenance activities cannot be fully met or where there are identified defects outside the planned schedule		3	0	3
	PC12.complete relevant maintenance documentation accurately		4	0	4
	PC13.dispose of waste materials in accordance with safe working practices and approved procedures		6	2	4
	PC14.identify and lead on making improvements to maintenance processes and procedures		7	2	5
	PC15.refer the problem to a competent internal/external specialist if it cannot be resolved		6	2	4
	PC16.obtain help or advice from specialist if the problem is outside candidate's area of competence or experience		5	0	5
	PC17.monitor the problem and keep the superior informed about progress or any delays in resolving the problem		4	0	4
	PC18.comply with relevant legislation, standards, policies and procedures		6	2	4
	Total		**100**	**20**	**80**
4.CSC/N1335 Use basic health and safety practices at the	PC1.use protective clothing/equipment for specific tasks and work conditions	**100**	5	2	3
	PC2.state the name and location of people responsible for health and safety in the workplace		3	1	2

Assessable Outcome	Assessment Criteria	Total Mark (500)	Out Of	Marks Allocation	
				Theory	Skills Practical
workplace	PC3.state the names and location of documents that refer to health and safety in the workplace		3	1	2
	PC4.identify job-site hazardous work and state possible causes of risk or accident in the workplace		5	2	3
	PC5.carry out safe working practices while dealing with hazards to ensure the safety of self and others state methods of accident prevention in the work environment of the job role		4	2	2
	PC6.state location of general health and safety equipment in the workplace		3	2	1
	PC7.inspect for faults, set up and safely use steps and ladders in general use		5	2	3
	PC8.work safely in and around trenches, elevated places and confined areas		5	2	3
	PC9.lift heavy objects safely using correct procedures		5	2	3
	PC10.apply good housekeeping practices at all times		4	2	2
	PC11.identify common hazard signs displayed in various areas		5	2	3
	PC12.retrieve and/or point out documents that refer to health and safety in the workplace		3	1	2
	PC13.use the various appropriate fire extinguishers on different types of fires correctly		4	1	3
	PC14.demonstrate rescue techniques applied during fire hazard		4	1	3
	PC15.demonstrate good housekeeping in order to prevent fire hazards		3	1	2
	PC16.demonstrate the correct use of a fire extinguisher		4	1	3
	PC17.demonstrate how to free a person from electrocution		4	1	3
	PC18.administer appropriate first aid to victims was required eg. in case of bleeding, burns, choking, electric shock, poisoning etc.		4	1	3
	PC19.demonstrate basic techniques of bandaging		3	1	2
	PC20.respond promptly and appropriately to an accident situation or medical emergency in real or simulated		4	1	3

Assessable Outcome	Assessment Criteria	Total Mark (500)	Out Of	Marks Allocation	
				Theory	Skills Practical
	environments				
	PC21.perform and organize loss minimization or rescue activity during an accident in real or simulated environments		3	1	2
	PC22.administer first aid to victims in case of a heart attack or cardiac arrest due to electric shock, before the arrival of emergency services in real or simulated cases		3	1	2
	PC23.demonstrate the artificial respiration and the CPR Process		3	1	2
	PC24.participate in emergency procedures		3	2	1
	PC25.complete a written accident/incident report or dictate a report to another person, and send report to person responsible		4	1	3
	PC26.demonstrate correct method to move injured people and others during an emergency		4	1	3
	Total		**100**	**36**	**64**
5.CSC/N1336 Work effectively with others	PC1.accurately receive information and instructions from the supervisor and fellow workers, getting clarification where required	**100**	10	3	7
	PC2.accurately pass on information to authorized persons who require it and within agreed timescale and confirm its receipt		10	3	7
	PC3.give information to others clearly, at a pace and in a manner that helps them to understand		10	3	7
	PC4.display helpful behavior by assisting others in performing tasks in a positive manner, where required and possible		10	3	7
	PC5.consult with and assist others to maximize effectiveness and efficiency in carrying out tasks		10	3	7
	PC6.display appropriate communication etiquette while working		10	3	7
	PC7.display active listening skills while interacting with others at work		10	3	7
	PC8.use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism		10	3	7
	PC9.demonstrate responsible and disciplined behaviors at the workplace		10	3	7
	PC10.escalate grievances and problems to appropriate authority as per procedure to resolve them and avoid conflict		10	3	7
	Total		**100**	**30**	**70**

Assessable Outcome	Assessment Criteria	Total Mark (500)	Out Of	Marks Allocation	
				Theory	Skills Practical
	Grand Total	500	500	137	363
	Percentage Weightage:			28	72
	Minimum Pass% to qualify (aggregate):			60	