Model Curriculum

Instrumentation Technician (Process Control)

SECTOR : INSTRUMENTATION AUTOMATION SURVEILLANCE & COMMUNICATION
SUB-SECTOR : INSTRUMENTATION & AUTOMATION
OCCUPATION : OPERATION AND MAINTENANCE
REF ID : IAS/Q3102, V1.0
NSQF LEVEL : 4

Skill India
कौशल भारत - कुशल भारत

IASC
SECTOR SKILL COUNCIL
एक कदम आत्मनिर्भरता की ओर

N·S·D·C National Skill Development Corporation

Certificate

CURRICULUM COMPLIANCE TO
QUALIFICATION PACK - NATIONAL OCCUPATION STANDARDS
Is hereby issued by the
INSTRUMENTATION AUTOMATION SURVEILLANCE & COMMUNICATION SECTOR SKILL COUNCIL
For the
MODEL CURRICULUM

Complying of National Occupational Standards of
Job Role/Qualification Pack : **'Instrumentation Technician (Process Control)'** QP No. **'IAS/Q3102,**V1.0 **NSQF Level 4'**

Date of Issuance : May 02nd ,2019
Valid up to : May 01st ,2023

*Valid up to the next review date of the Qualification Pack

Authorised Signatory
(INSTRUMENTATION AUTOMATION SURVEILLANCE & COMMUNICATION)

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Instrumentation Technician (Process Control)

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a "Instrumentation Technician (Process Control)", in the "Instrumentation Automation Surveillance & Communication" Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	**Instrumentation Technician (Process Control)**		
Qualification Pack Name & Reference ID.	IAS/Q3102, v1.0		
Version No.	1.0	**Version Update Date**	17th Oct. 2018
Pre-requisites to Training	12th pass (PCM)/ ITI (2 Years) In Instrumentation/ Electrical/ Electronics		
Training Outcomes	**After completing this programme, participants will be able to:** • Identify appropriate work permit, check sheets, formats, plant working and instrumentation documents. • Carryout basic overhaul and testing of field instrumentation, control loops and control valves • Carryout routine checks for on line analyzers and analyzer house • Identify DCS & PLC devices • Identify fault in package units – boilers, heaters, compressors, and chillers etc. • Carryout predictive, corrective and shutdown maintenance • Carryout installation of instruments actuators and loop testing • Prepare report of completed PM tasks, corrective maintenance tasks, unusual occurrence etc. and faults report • Follow health and safety norms of the industry and the organization to ensure health and safety of self, others, asset and environment. • Work effectively in a team		

This course encompasses 7 out of 7 National Occupational Standards (NOS) of "Instrumentation Technician (Process Control)" Qualification Pack issued by "Instrumentation Automation Surveillance & Communication Sector Skill Council".

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	**Overview of Instrumentation and Process Control** **Theory Duration** (hh:mm) 16:00 **Practical Duration** (hh:mm) 16:00 **Corresponding NOS Code** IAS/N 3103 IAS/N 3104 IAS/N 3108 IAS/N 3106 IAS/N 3107	• Identify different types of sensors, instruments and control elements. • Describe basic principles of measurement, connections and practices in process control. • Identify different standards, symbols and terminology used in process control. • Describe principles of control loops. • Recognize basic plant safety and plant security practices . • Identify the requirement of different kinds of process industries and their unique characteristics.	Laptop, white board, marker, projector,
2	**Maintain site readiness and instrument usability as applicable for process control industry** **Theory Duration** (hh:mm) 08:00 **Practical Duration** (hh:mm) 16:00 **Corresponding NOS Code** IAS/N3103	• Identify process plant related instructions and directives covering equipment, location, lay out, procedures, forms etc. • Follow the instructions and directives of various permits to work. • Use the right one depending on the job he/she undertakes. • Identify check sheets used in Instrumentation Maintenance work. • Identify plant working document relevant to a particular Instrument tag/control loop he is working on, as required. • Identify document pertaining to a particular Instrument tag he/she is working with, as required • Carryout basic overhaul and testing under supervision of all standard types of control valves and accessories. • Carryout routine checks of on line analyzers and analyzer house. • Identify field devices and the interface units – able to work on the system. • Identify faults relating to operation of package units, location, relates instrument tags to respective process package unit. • Carryout routines and basic trouble shooting of package units.	Laptop, white board, marker, projector, MS Office

		• Identify fire and gas field devices, main field devices, interface units and performs maintenance work on the system. • Identify the visible loss of installation integrity. • Identify potential electrical problems due to deviation from standard electrical practices • Assess the floor condition , lighting requirement and their operation.	
3	**Perform process control preventive maintenance** **Theory Duration** (hh:mm) 10:00 **Practical Duration** (hh:mm) 16:00 **Corresponding NOS Code** IAS/N3104	• Identify the requirement of permit to work. • Follow preventive maintenance jobs as per available preventive maintenance Schedule. • Prepare process list from process supervisor. • Prepare next day's preventive maintenance schedule • Carryout visual checks and take corrective action wherever possible or else transfer job to shut down list. • Follow preventive maintenance schedule list of field instrument, control valve, actuator and accessories. • Analyze diagnostic messages from control valves which have a digital valve controller. • Record the diagnostic massages in either preventive maintenance list or opportunistic shut down list for execution. • Carryout preventive maintenance jobs during annual shut down or opportunistic shut down • Prepare consolidated preventive maintenance list.	Laptop, white board, marker, projector, Model Control Panel with Instruments, Controllers, Devices, Sensors, Cables, Tools, Meters.
4	**Perform process control reporting tasks** **Theory Duration** (hh:mm) 10:00 **Practical Duration** (hh:mm) 08:00 **Corresponding NOS Code** IAS/N3108	• Identify preventive maintenance check lists, corcetive maintenance check list and reports • Prepare report of any visible changes in control valve installation or its accessories. • Prepare report of any theft in control valve assembly/spares.	Laptop, white board, marker, projector, MS Office/ Data recording and communication equipment.
5	**Perform predictive, corrective and shutdown maintenance for process control**	• Follow predictive maintenance (PRM) plan. • Follow corrective maintenance (CM) plan and schedule • Identify CM needs and spares	Laptop, white board, marker, projector, MS Office

	Theory Duration (hh:mm) 08:00 **Practical Duration** (hh:mm) 16:00 **Corresponding NOS Code** IAS/N3106	• Carryout CM schedule • Carryout planned & opportunistic shutdown maintenance • Prepare corrective maintenance check list / report • Prepare CM fault list / planned shutdown list.	
6	**Perform Installation of instruments and loop testing as per instructions** **Theory Duration** (hh:mm) 08:00 **Practical Duration** (hh:mm) 16:00 **Corresponding NOS Code** IAS/N3107	• Use appropriate work permit for installation and loop testing • Follow installation procedure of instruments following industry best practices • Prepare for loop testing - preparatory tasks • Carryout loop test. • Carryout any rework. • Modify the loop	Laptop, white board, marker, projector, MS Office
7	**Health and Safety in Workplace** **Theory Duration** (hh:mm) 04:00 **Practical Duration** (hh:mm) 08:00 **Corresponding NOS Code** IAS/N9002	• Illustrate the importance of safety and first aid. • Identify the components of a basic first aid kit, safety tools, equipments. • Administer basic first aid at the time of emergency. • Demonstrate correct use of fire extinguishers at the time of emergency. • Follow the general safety procedures as defined by the organization • Follow electrical safety measures while operating electrical tools and RF equipment • Illustrate practices for maintaining safe and secure workplace • Participate in safety drills at workplace	Laptop, white board, marker, projector, Fire Drill accessories, First Aid kit, Protective Gear, ESD accessories
8	**Work Effectively With Teams** **Theory Duration** (hh:mm) 08:00 **Practical Duration** (hh:mm) 08:00 **Corresponding NOS Code** IAS/9001	• Coordinate effectively with team members to achieve work objectives • Communicate effectively with the team. • Demonstrate active listening skills while communicating	Laptop, white board, marker, projector, MS Office / Open office software, email, Printer

	Total Duration **Theory Duration 72:00** **Practical Duration 104:00**	**Unique Equipment Required:** • Laptop, white board, marker, projector, • Model Control Panel with Instruments, Controllers, Devices Sensors, switches, indicators, pushbuttons etc. • Electrical safety accessories, Electrical switchgear, Conductivity meter, Earth pit and its components • Tool sets, Meter sets, Wires, Cables, Terminals, Sockets, Panels, Cable tray, Ferrules, Cable Glands, Supporting infrastructure • Fire Drill accessories, First Aid kit, Protective Gear, ESD accessories • AUTOCAD Software, MS Office / Open office software, email, Printer

Grand Total Course Duration: 176 Hours, 00 Minutes
Recommend OJT Hours : 40 Hours, 00Minutes

(This Syllabus curriculum has been approved by Instrumentation Automation Surveillance & Communication Sector Skill Council of India)

Trainer Prerequisites for Job role: "Instrumentation Technician (Process Control)" mapped to Qualification Pack: "IAS/Q3102, v1.0"

Sr. No.	Area	Details
1	**Description**	Instrumentation Technician (Process Control) is employed in process industries such as - oil refineries, petrochemicals, fertilizer units, power plants steel, pharmaceuticals and other process industries. Instrumentation Technician (Process Control) carries out duties related to operation, preventive maintenance and breakdown maintenance of instrumentation and control systems in process plants. Also capable of performing installation of instruments and actuators and perform Loop Test.
2	**Personal Attributes**	This job requires the individual to be disciplined, assertive, team player, possess analytical skills and problem solving ability, effective communicator and have the ability to work under pressure.
3	**Minimum Educational Qualification**	12th pass(PCM) / ITI (2Years) in Instrumentation/Electrical/Electronics
4a	**Domain Certification**	Certified for job role: "Instrumentation Technician (Process Control)" mapped to QP: "IAS/Q3102,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: "MEP/Q0102". Minimum accepted score is 80%.
5	**Experience**	NA

Assessment Criteria

Assessment Criteria	
Job Role	Instrumentation Technician (Process Control)
Qualification Pack	IAS/Q3102, V1.0
Sector Skill Council	Instrumentation Automation Surveillance & Communication

Guidelines for Assessment

1. Criteria for assessment for each Qualifications Pack will be approved 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 approved by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/ option NOS/ Set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criterion.
6. To pass the Qualifications Pack, every trainee should score a minimum of 70% of aggregate marks.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Compulsory NOS				Marks Allocation	
Assessment Outcomes	**Assessment Criteria for Outcomes**		**Out of**	**Theory**	**Skills Practical**
1. IAS/N3103 Maintain site readiness and instrument usability as applicable for process control industry	PC1. read, interpret and follow the process plant related instructions and directives, including equipment required, location, lay out, procedures etc.		4	2	2
	PC2. read, interpret and follow the the rules regarding various permits to work and use the right one depending on the job he/she undertakes.		4	2	2
	PC3. make the check list consisting of site hygiene, calibration, preventive maintenance etc. and use it in instrumentation & maintenance work		4	2	2
	PC4. verify and use the plant working and instrument document relevant to a particular Instrument tag/control loop being worked upon Plant working: Main process plants; package units such as boilers, heaters, compressors chillers etc. Instrument documents: P and I diagram; instrument index/data sheets/hook up diagram/loop diagram/instrument layout diagram/wiring diagrams/cause and effect diagram		5	3	2
	PC5. Check the maintenance requests for instruments connected with process control and resolve the problems as per instructions instruments connected with process control problem solving: Measurement sensors and associated impulse lines/sensor cables/Pneumatic/electronic transmitters etc.; Controllers and control room receivers/ Control valves and other final control elements etc.		5	2	3
	PC6. Perform basic overhaul and testing of process control equipment as per instructions Instruments connected with process control for overhaul and testing: Control Valve accessories, Solenoid Valves, Fail safe shut down devices/ Pneumatic and Digital Valve positioners /Control Valve Data Sheet, control Valve characteristics /Overhaul, testing and calibration of Control Valves etc.		6	3	3
	PC7. carry out routine checks of Analyzer sampling system/ Sensor and electronics section (liquid analyzers, Gas analyzers, Gas Chromatograph and accessories in Analyzer house/Calibration Gas cylinders storage and procedures etc.		4	2	2

	PC8. check the field devices and identifies the interface units – able to work on the system with guidance.		4	2	2
	PC9. locate and identify faults in Package Units – Boilers, Heaters, Compressors, Chillers etc. relating to operation of package units, location, etc.		4	2	2
	PC10.undertake routines checks and perform basic trouble shooting in process package units.		4	2	2
	PC11.locate and identify faults in the fire and gas field devices, identify interface units		4	2	2
	PC12.perform maintenance work on the fire and Gas system with guidance		4	2	2
	PC13. check for visible damage or wrong installation of specified field Instruments by various causes (in an inventory list otherwise provided by the Supervisor Various causes: prominent damage to accessories of the specified Instruments caused by impact of an external body; Check for water ingress in indoor working are a due to seepage/roof leaks /damaged windows; misuse of installation by other agencies for example, using instrumentals on a support or for scaffolding buildup; prominent deterioration due to environment for example, corrosion / proximity to hot surfaces / process leaks etc.		4	2	2
	PC14.check for improper closure of junction boxes, panels, cable termination/ tubing /impulse piping connection etc.		4	2	2
	PC15.check for unauthorized /unexplained cable connection, disconnection/ process impulse lines / instrument air connection/ disconnection		3	1	2
	PC16.check for potential electrical problems due to deviation from standard electrical practice		3	1	2
	PC17.check for unused flood light/ field plug connections with trailing cable/ bare, untagged or un-insulated wires		3	1	2
	PC18.check for any modifications or deviation in explosion proof closures and intrinsic safety installation		3	1	2
	PC19.check for wet/slippery work areas, improper storage of items and cluttering of items on work areas. These are potential safety hazards		3	1	2
	PC20.check for lighting and their operation. Check for unsafe temporary wiring of lighting		3	1	2
	PC21.check for excessive consumption /visible Wastage of cleaning solvents, lubrication oil and grease/related consumables such as waste cloth and gloves.		3	1	2
	PC22.check for proper storage of solvent and waste cloth (potential fire hazard).		3	1	2

	PC23.perform follow-up action as per assigned areas of responsibility and stipulated instructions. Items found unusual outside this boundary to be reported to supervisor and obtain required approval/endorsement		3	1	2
	PC24.prepare a list of problems identified		3	1	2
	PC25.follow standard procedure and instruction manual to rectify the problems		3	1	2
	PC26.report to supervisor that problems that could not be rectified promptly		3	1	2
		Total	**100**	**44**	**56**
2.IAS/N3104 Perform process control preventive maintenance	PC1. obtain work permit (mandatory) from the process supervisor before commencing maintenance work.		10	5	5
	PC2. perform the day's preventive maintenance tasks and report Preventive maintenance tasks: check sheets and related documents; check tools and tackles and calibrating equipment; wear personal protective safety equipment.		10	5	5
	PC3. prepare preventive maintenance process list as per instructions from process supervisor.		8	4	4
	PC4. prepare plan for next day's preventive maintenance schedule.		8	4	4
	PC5. perform preventive maintenance jobs as per available preventive maintenance schedule.		8	4	4
	PC6. check preventive maintenance schedule list of field instrumentation and controls to ensure that all jobs listed in schedule are completed		8	4	4
	PC7. perform the Visual Checks & takes corrective actions wherever possible or else transfer job to shut down list		8	4	4
	PC8. check for abnormal vibration – locates source- corrects /informs supervisor		8	4	4
	PC9.check for gland leak /instrument air leaks/ control valve bonnet and body flange leaks and report to process supervisor& Instrument supervisor.		8	4	4
	PC10.check pneumatic and electric connections to solenoid valve/pneumatic connections in Pneumatic transmitters etc. and rectifies fault after informing process supervisor .		8	4	4
	PC11.prepare and consolidate daily-diagnostic messages from control valves and record the same in either Preventive Maintenance list or opportunistic shut down list for execution.		8	4	4
	PC12.perform preventive maintenance jobs during annual shut down or opportunistic shut down list.		8	4	4
		Total	**100**	**50**	**50**
	PC1. report the faults/issues to immediate supervisor		10	5	5

3. IAS/N3108 Perform process control reporting tasks	PC2. ensure complete entry of preventive maintenance check lists/reports		10	5	5
	PC3. ensure complete entry of corrective maintenance check lists /reports		10	5	5
	PC4. report on noticing of any visible changes in control valve installation or its accessories. report for immediate attention of supervisor		10	5	5
	PC5. report any theft in control valve assembly/ spares to supervisor		10	5	5
	PC6. report suspicious movement of new persons near control valve installation to security and supervisor		10	5	5
		Total	**60**	**30**	**30**
4.IAS/N3106 Perform predictive, corrective and shutdown maintenance for process control	PC1.check and analyze the observations of preventive maintenance visits for any recurrent issues or behaviour which points to a possible problem or failure in near future.		5	2	3
	PC2.check and Identify items (instruments, control elements, cabling and other accessories) which are in conditions that need repair or replacement		5	2	3
	PC3.prepare a list and discuss with the engineer or supervisor and identify items that need maintenance/replacement		5	2	3
	PC4.check and identify the items needs for corrective maintenance and incorporate in list along with the schedule		5	2	3
	PC5.prepare corrective maintenance plan from the identified needs.		5	2	3
	PC6.prepare the schedule for execution of corrective maintenance list		5	2	3
	PC7.check and analyze the observations, reports and behavior of the field instruments and identify needs for corrective maintenance in the plant. Create corrective maintenance list.		5	2	3
	PC8.check and identify spares required for corrective maintenance and prepare list.		5	2	3
	PC9.ensure the availability of spares and share the list with the designated persons.		5	2	3
	PC10.carry out maintenance of items in the corrective maintenance list.		5	2	3
	PC11.obtain work permit from the process supervisor before commencing maintenance work.		5	2	3
	PC12.check and identify necessary documents and equipment: Documents and equipment: Check sheets and related documents; tools, tackles and calibrating equipment; spares parts, complete instruments/assemblies and consumables; required for corrective maintenance; personal protective safety equipment;		5	2	3
	PC13. perform adjustment/ calibration/part replacement/ instrument replacement as		5	2	3

	specified.				
	PC14. perform corrective maintenance jobs during annual shut down or opportunistic shut down list.		5	2	3
	PC15. perform requested services relating to instruments, controllers, field wiring, calibration, testing and adjustments during shutdown and overhaul.		5	2	3
	PC16.check with other departments (such as cranes, workshop and process operations, mechanical, electrical, central stores) to complete extremely time critical activities and support start up.		5	2	3
	PC17.ensure entry of corrective maintenance check lists and prepare reports.		4	2	2
	PC18.perform all faults reported.		4	2	2
	PC19.perform corrective maintenance schedule list of field instrumentation and controls. Close the list.		4	2	2
	PC20.report supervisor about corrective maintenance performed.		4	2	2
	PC21.report to supervisor about Faults / issues if any.		4	2	2
		Total	**100**	**42**	**58**
5. IAS/N3107 Perform Installation of instruments and loop testing as per instructions	PC1. obtain work permit of the right kind from the process supervisor before commencing work		5	2	3
	PC2. verify for each loop listed for Loop Test, perform operational check of the field instrument, controller and HMI elements etc.		5	2	3
	PC3. ensure the continuity test of signal from the instruments to the control panel – namely PLC, DCS, ESD or any other logical system		5	2	3
	PC4. ensure that the field instrument is calibrated according to specifications.		5	2	3
	PC5. ensure that the field instrument is properly connected to PLC, DCS or any other system.		5	2	3
	PC6. check the logic in the DCS is ranged according to the field instruments and engineering units.		5	2	3
	PC7. ensure the range of calibration, alarms, set points and any signal included in the loop folder.		5	2	3
	PC8. ensure the testing of DCS signal from/to all instruments and actuators using appropriate signal generator such as HART communicator, temperature generator or 4-20mA generator, depending instrument type.		5	2	3
	PC9. ensure testing ESD operation with specified tools to generate the required pressure, level or other parameter.		5	2	3
	PC10. ensure the testing of Loops for different type of control action such as direct, reverse, split range etc. and record all data in the loop folder.		5	2	3

	PC11. check the signal from the field instrument is received by the control algorithm and the appropriate corrective output signal is generated and received by the final control element.		5	2	3
	PC12. preform the calibration of field control device according to specifications.		5	2	3
	PC13. prepare the loop test report as defined in the SOP.		4	2	2
	PC14. identify the scope and the plan of the Loop Testing as per Loop test list		4	2	2
	PC15. co-ordinate with the team working at the end with PLC/DCS/other system, as per the loop testing procedure		4	2	2
	PC13. ensure availability of installation drawings, documents, specifications, along with the tag numbers, configurations and other details needed for loop test		4	2	2
	PC14. ensure availability of the instruments, calibrating equipment's and accessories, needed for the loop test		4	2	2
	PC15. check the list of corrections required to be carried out.		4	2	2
	PC16. identify the type of correction needed – adjustment, refitting, cleaning, overhaul, recalibration, wiring change, replacement		4	2	2
	PC17. perform the desired action and verify the performance of the device and maintain records.		4	2	2
	PC18. ensure drawings/circuits incorporate changes during rework as per SOP.		4	2	2
	PC19. check the list of corrections required to be carried out.		4	2	2
	PC20.dentify the type of correction needed – adjustment, refitting, cleaning, overhaul, recalibration, wiring change, replacement or any other action.		5	2	3
	PC21.perform the desired action and verify the performance of the device and maintain records.		5	2	3
	PC22.ensure drawings/circuits incorporate changes during rework as per SOP.		5	2	3
		Total	**100**	**44**	**56**
6. IAS/N9001 Work effectively with Teams	PC1. Know and understand the team objectives and goals		3	1	2
	PC2. Know team members by name. Greet them appropriately and respond to their greetings.		2	1	1
	PC3. Know the roles and responsibilities of team members. Ensure others know about you and your role in the team		2	1	1
	PC4. Learn about the culture and preferences of team members – especially if they belong to other organizations or nationalities		5	1	4
	PC5. Follow organization's policies and procedures for working with team members		2	1	1

	within and outside the organization – especially relating to privacy,confidentiality and security.				
	PC6. Create an environment of trust and mutual respect		3	1	2
	PC7. Use appropriate mode of communication – verbal, written, mail, phone or text and clearly articulate your message to ensure that the recipient understands the message.		2	1	1
	PC8.Listen to team members and try to understand what they are wanting to say. Seek or provide clarifications if you see any gap in understanding		3	1	2
	PC9. Communicate professionally and follow organization protocols. Do not overload the team members with unnecessary and unsolicited information		4	1	3
	PC10.Share important information with the team timely.		3	1	2
	PC11.Respond to communications promptly.		3	1	2
	PC12.Perform own role and produce output in time for other team members to consume		3	1	2
	PC13.Receive inputs from others and work upon it per role requirement		2	1	1
	PC14.Make adjustments within the permissible rules so that work flows smoothly.		2	1	1
	PC15.Help team members to perform their role effectively and provide any clarifications and support they need		2	1	1
	PC16.Share tools and common resources fairly, taking cognizance of others' needs and schedules		2	1	1
	PC17.Resolve any contentious issues amicably, involving the team lead or the supervisor if needed		2	1	1
	PC18. Let team members know in good time if you cannot carry out your commitments, explaining the reasons and alternate solutions, if any. Let the team lead know about this.		2	1	1
	PC19.Think positively and make constructive suggestions to meet the goals		2	1	1
	PC20.Accept and give suggestions with open mind		2	1	1
	PC21.Take initiatives and volunteer to contribute		2	1	1
	PC22.Help team members with facts and figures to arrive at workable decisions		2	1	1
	PC23.Accept decisions professionally and support these, even if these do not match your suggestions and personal views		4	1	3
	PC24.Act in the interest of the team and the organization to ensure that things do not 'fall through the gap' and team goals are achieved.		4	1	3
	PC25. Take initiative to correct the situation if something seems to be going wrong.		2	1	1

	PC26. Seek help or escalate if the situation demands		2	1	1
	PC27. Follow organization's and statutory guidelines about making references or comments to social customs or preferences		2	1	1
	PC28. Refrain from making any comments to hurt sentiments		2	1	1
	PC29.Accommodate team members' preferences to the extent feasible. If these come in the way of fulfilling team goals, discuss with the supervisor/ team leader.		2	1	1
	PC30.Seek information and clarifications from others if you do not understand any customs.		2	1	1
		Total	**75**	**30**	**45**
7. IAS/N9002 Health and Safety in Workplace	PC1. Comply with general safety procedures followed in the company		3	2	1
	PC2. Follow standard safety procedures while handling an equipment, hazardous material or tool		2	1	1
	PC3. Remove finger rings or any other metal objects likely to interfere with the work before working on the unit		4	2	2
	PC4.Use of safety materials such as goggles, gloves, ear plugs, caps, ESD pins, covers, shoes, etc.		4	1	3
	PC5. Escalate about any hazardous materials or things found in the premises		4	1	3
	PC6. Report about any breach of safety procedure in the Company		3	1	2
	PC7. Ensure zero accidents at work		5	2	3
	PC8. Avoid damage of components due to negligence in ESD procedures		4	1	3
	PC9.Participate regularly in fire drills or other safety related workshops organized by the company		5	2	3
	PC10.Ensure no loss for company due to safety negligence		4	1	3
	PC11.Maintain appropriate posture, especially in long hours of sitting or standing position and in handling heavy materials		4	2	2
	PC12.Participate in company organized health sessions such as yoga, physiotherapy or games		4	2	2
	PC13.Handle heavy and hazardous materials with care and using appropriate tools and handling equipment such as trolleys, jacks and ladders		4	2	2
		Total	**50**	**20**	**30**