Model Curriculum

6. Senior Tungsten Inert Gas Welder (GTAW)

SECTOR: CAPITAL GOODS
SUB-SECTOR: MACHINE TOOLS, DIES, MOULDS AND PRESS TOOLS, PLASTICS MANUFACTURING MACHINERY, TEXTILE MANUFACTURING MACHINERY, PROCESS PLANT MACHINERY, ELECTRICAL AND POWER MACHINERY, LIGHT ENGINEERING GOODS
OCCUPATION: WELDING AND CUTTING
REF ID: CSC/Q0213, V1.0
NSQF LEVEL: 5

Skill India
कौशल भारत - कुशल भारत

CGSC
CAPITAL GOODS SKILL COUNCIL

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National
Skill Development
Corporation
Transforming the skill landscape

Certificate

CURRICULUM COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

CAPITAL GOODS SKILL COUNCIL

for the

MODEL CURRICULAM

Complying to National Occupational Standards of
Job Role/ Qualification Pack: **'Senior Tungsten Inert Gas Welder'** QP No. **CSC/ Q0213 NSQF Level 5'**

Date of Issuance: July 12th, 2016
Valid up to : Aug 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
(Capital Goods Skills Council)

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Senior Tungsten Inert Gas Welder (GTAW)

CURRICULUM / SYLLABUS

This program is aimed at training candidates for the job of a "Senior Tungsten Inert Gas Welder", in the "Capital Goods" Sector/Industry and aims at building the following key competencies amongst the learner

Program Name	**Senior Tungsten Inert Gas Welder (GTAW)**		
Qualification Pack Name & Reference ID. ID	CSC/Q0213, v1.0		
Version No.	1.0	**Version Update Date**	
Pre-requisites to Training	10th Standard passed, preferably		
Training Outcomes	**After completing this programme, participants will be able to:** • **Work safely:** Explain the importance of safe working practices at the workplace, and comply with health and safety legislation, regulations and other guidelines. • **Prepare for welding operation:** Identify TIG welding equipment and their functions. Prepares surface and joints for TIG welding operation. • **Carry out the cutting operation, and test for accuracy:** Weld using TIG welding techniques on metals like carbon steel, stainless steel, aluminium and aluminium alloys, nickel and nickel alloys, copper and copper alloys in various positions and test for quality to meet required standards. • **Deal with contingency:** Adherence to standard operating procedure in case of equipment failure or hazards arising out of TIG welding operation • **Basic health and safety practices at the workplace:** Identify site hazards and apply good housekeeping practices, etc. • **Work effectively with others:** Effectively communicate with others and demonstrate good ethical practices and discipline.		

This course encompasses 3 out of 3 National Occupational Standards (NOS) of "Senior Tungsten Inert Gas Welder" Qualification Pack issued by "Capital Goods Skill Council".

Sr. No.	Module	Key Learning Outcomes	Equipment Required
1	**Introduction to TIG Welding** **Theory Duration** (hh:mm) 25:00 **Practical Duration** (hh:mm) 05:00 **Corresponding NOS Code** CSC/N0213	• State the various opportunities available in fabrication industry • Describe the role and responsibilities of a stud welding operator • Compare various types of welding processes • Explain material classification and their properties • Interpret various kind of joints used in the welding process • Explain the principle and application Tungsten Inert Gas Welding • List equipment/tools used in TIG welding set up –Transformer, rectifier, inverter, generator, voltmeter, multi-meter, ammeter, tong tester, torch (water cooled),return clamps, wire brushes,linishers, hammer, power saw, grinder, chisel,cylinders,regulators (single stage, two stage),gas flow meters, gas tubes , connectors, solenoid valves and economisers • Name different types power sources • State the concept and mechanism of welding – rated output, measurement of electrical output and continuity, types of current AC/DC, polarity, function of induction, relay for electrical power • Classify welding consumables based on the size /diameter, strength and elongation of weld metal, impact properties of weld metal, chemical composition of the weld metal and protection of bare wires • Explain types and application of shielding gases- argon, argon/ helium mixture, argon / helium mixture, nitrogen argon/nitrogen mixtures • Explain the impact of shielding gas composition and purity on welding quality • State the importance and impact of gas pressure and flow rate in relationship to the type material being welded • Define welding terminology and positions • Apply gouging and back gouging principles, methods and procedure • Explain metal distortion and methods to	Training kit (Trainer guide, PowerPoint), Transformer, rectifier, inverter, generator, voltmeter, multi-meter, ammeter, tong tester, torch (water cooled),return clamps, wire brushes,linishers, hammer, power saw, grinder, chisel,cylinders,regulators (single stage, two stage),gas flow meters, gas tubes and connectors, solenoid valves and economisers

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		control distortion during the welding process	
2	**Work safely** **Theory Duration** (hh:mm) 05:00 **Practical Duration** (hh:mm) 10:00 **Corresponding NOS Code** CSC/N0213	• Explain the importance of safe working practices • Comply with health and safety legislation, regulations and other guidelines • Follow general safety practices at the workplace • Identify hazards at the workplace and take corrective actions to avoid such hazards • Follow material handling procedures • State the causes of fire and apply methods to prevent fire accidents • List the personal protective equipment (PPE) required for gas TIG welding • Wear suggested personal protective equipment correctly • Follow the safety recommendations while handling TIG welding equipment • Check the condition welding leads, gas connection arrangement, earthing arrangements and electrode holder	Training kit (Trainer guide, PowerPoint), Leather apron; leather gloves; welding screen – helmet type; hand screen welding; safety shoes; fire extinguisher- dry powder type; fire bucket with sand and first aid kit, Transformer, rectifier, inverter, generator, voltmeter, multi-meter, ammeter, tong tester, torch (water cooled),return clamps, wire brushes,linishers, hammer, power saw, grinder, chisel,cylinders,regulators (single stage, two stage),gas flow meters, gas tubes and connectors, solenoid valves and economisers
3	**Prepare for welding operation** **Theory Duration** (hh:mm) 20:00 **Practical Duration** (hh:mm) 40:00 **Corresponding NOS Code** CSC/N0213	• Gather welding data from weld procedure data sheet • Explain weld positions as per EN ISO 6947 – PA,PB, PC,PD, PE,PF, PG, ASME IX –I-6G/1-6F • Select welding machine as per the material and task- AC power source is selected for aluminium and magnesium and DC source is used for steel • Select right electrode based on the metal thickness and composition – Pure tungsten, lanthanated.5%, ceritred 2%, thoriated 2%, zirconiated 2% • Identify the tungsten electrode by the colour of the tip according to base metal and correct diameter • Prepare the surface and joints for welding • Connect accessories to the power source • Connect regulators and flow meters to the cylinders • Set amperage based on the metal thickness to be welded • Set gas flow rate • Tack weld at appropriate intervals	Training kit (Trainer guide, PowerPoint), Leather apron; leather gloves; welding screen – helmet type; hand screen welding; safety shoes; fire extinguisher- dry powder type; fire bucket with sand and first aid kit, Transformer, rectifier, inverter, generator, voltmeter, multi-meter, ammeter, tong tester, torch (water cooled),return clamps, wire brushes,linishers, hammer, power saw, grinder, chisel,cylinders,regulators (single stage, two stage),gas flow meters, gas tubes and connectors, solenoid valves and economisers
4	**Carryout welding operation**	• Select AC/DC power source as per the composition of the metal to be welded • Set correct amperage and gas flow rate	Leather apron; leather gloves; welding screen – helmet type; hand screen welding; safety shoes; fire

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Theory Duration (hh:mm) 20:00 **Practical Duration** (hh:mm) 100:00 **Corresponding NOS Code** CSC/N0213	• Identify the correct method to start the arc • Explain the method to select correct angle of torch and filler wire • Carryout TIG welding as per WPS on carbon steel, stainless steel, aluminium, aluminium alloys, nickel &nickel alloys, titanium and copper alloys. Forms may include – sheet (less than 1.5 mm), plate (8 mm),section, pipe/tube and other forms • Check weld quality as per the standards – dimensional accuracy, weld surface free from cracks, porosity, pronounced hump or crater, shrinkage cavities, arcing or chipping marks, size of the fillet equivalent to the thickness of material to be welded, free from excessive undulations, minimal undercut • Maintain the work area clean and tidy • Shutdown the equipment as per the procedure safely • Return the hand tools in safe condition after the work	extinguisher- dry powder type; fire bucket with sand and first aid kit, Transformer, rectifier, inverter, generator, voltmeter, multi-meter, ammeter, tong tester, torch (water cooled),return clamps, wire brushes,linishers, hammer, power saw, grinder, chisel,cylinders,regulators (single stage, two stage),gas flow meters, gas tubes and connectors, solenoid valves and economisers
5	**Test for accuracy** **Theory Duration** (hh:mm) 20:00 **Practical Duration** (hh:mm) 40:00 **Corresponding NOS Code** CSC/N0213	• Visually inspect welded part for any defects like – lack of continuity, uneven and irregular ripple formation, incorrect weld size or profile, undercut, overlap, inclusions, porosity, internal cracks, surface cracks, lack of fusion, lack of penetration, welding spatter, and sharp edges • Explain the method to check dimensional accuracy using fillet gauges • Carryout Liquid Penetrant Test (LPT) to assess fine defects open to the surface not detected by Visual inspection	Training kit (Trainer guide, PowerPoint), Steel rule, fillet weld gauge LPT kit
6	**Deal with contingencies** **Theory Duration** (hh:mm) 10:00 **Practical Duration** (hh:mm) 20:00 **Corresponding NOS Code** CSC/N0213	• Identify any equipment malfunctioning and report to the concerned authority • Seek help from supervisor in case of any difficulty • Know relevant legislation, standards, policies and procedures • State various departments and their function • Understand hierarchy protocols • Read and interpret information correctly • Fill appropriate forms • Perform numerical calculations • Participate in on-the-job learning, training and development, interventions	Training kit (Trainer guide, PowerPoint)

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		and assessments • Use problem solving skills • Explain the importance of planning and organizing day-to-day activities • Develop critical and analytical thinking skills • State the importance of team work	
7	**Post welding techniques** **Theory Duration** (hh:mm) 05:00 **Practical Duration** (hh:mm) 20:00 **Corresponding NOS Code** CSC/N0213	• Perform Non destructive tests like – DPT, FPT,MPT, RT and UT • Assist in performing Destructive tests like – nick break test, bend test, peel test, tensile strength, shear strength, fatigue strength and impact test	Training kit (Trainer guide, PowerPoint), Dye penetrant test kit, Magnetic particle inspection testing machine, Ultrasonic flaw detector, Impact testing machine, Universal Testing Machine
8	**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
9	**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
10	**Emergencies, rescue and first aid procedure**	• Follow electrical safety procedures • Use approved method to rescue a person from electrocution	Training kit (Trainer guide, PowerPoint)

Sr. No.	Module	Key Learning Outcomes	Equipment Required
	Theory Duration (hh:mm) 09:00 **Practical Duration** (hh:mm) 18:00 **Corresponding NOS Code** CSC/N1335	• 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	First aid kit with all contents
11	**Work effectively with others** **Theory Duration** (hh:mm) 20:00 **Practical Duration** (hh:mm) 60:00 **Corresponding NOS Code** CSC/N1336	• Explain the importance of team work and team dynamics • State 4Cs of working in a team • Explain types of communication • Apply effective communication technique • 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	Training kit (Trainer guide, PowerPoint)
12	**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 153:00** **Practical Duration 357:00**	**Unique Equipment Required:** Leather gloves; leather apron; welding screen - helmet type; hand screen welding; safety shoes; fire extinguishers - dry powder fire extinguisher; fire bucket with sand, first aid kit; transformer, rectifier, inverter, generator, voltmeter, multi-meter, ammeter, tong tester, torch (water cooled), return clamps, wire brushes, linishers, hammer, power saw, grinder, chisel, cylinders, regulators (single stage, two stage), gas flow meters, gas tubes and connectors, solenoid valves, economisers scriber - 15 cm; dividers 20 cm; calliper outside 15 cm; prick punch; chisel cold flat - 19 mm; centre punch – 9 mm x 127 mm; rule 60 cm; two fold; brass toped to read inches and mm; hammer scaling 0.25 kg	

Sr. No.	Module	Key Learning Outcomes	Equipment Required
		with handle; steel rule - 30 cm to read inch and millimetre; Vernier calliper (digital) - 0-150 mm; ball peen hammer with handle - 0.25 kg; cross peen hammer with handle - 0.25 kg; holding tongs - 30 cm; wire brush – 15 cm x 3.7 cm and double ended spanner, Dye penetrant test kit, Magnetic particle inspection testing machine, Ultrasonic flaw detector, Impact testing machine, universal testing machine	

Grand Total Course Duration: **510 Hours, 0 Minutes**

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

Trainer Prerequisites for Job role: "Senior Tungsten Inert Gas Welder (GTAW)" mapped to Qualification Pack: "CSC/Q0213 v1.0"

Sr. No.	Area	Details
1	**Description**	Perform manual TIG (GTAW) welding for a range of standard welding job requirements. This is for a skilled welder who can weld different materials (carbon steel, aluminum, nickel, titanium, copper and stainless steel) in various positions and prepare various joints including corner, butt, fillet and tee. Set-up and prepare for operations interpreting the right information from the WPS..
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**	Diploma /Degree in Mechanical Engineering
4a	**Domain Certification**	Certified for Job Role: "Senior Tungsten Inert Gas Welder (GTAW)" mapped to QP: "CSC/Q0213, 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	Senior Tungsten Inert Gas Welder (GTAW)
Qualification Pack	CSC/Q0213, 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 (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
1.CSC/N0213 Perform Tungsten Inert Gas (TIG) Welding also known as Gas Tungsten Arc Welding (GTAW) Welding	PC1. work safely at all times, complying with health and safety legislation, regulations and other relevant guidelines	100	2	1	1
	PC2. adhere to procedures or systems in place for health and safety, personal protective equipment (PPE) and other relevant safety regulations for TIG welding operations		2	1	1
	PC3. check the condition of welding leads, gas connection arrangements, earthing arrangements and electrode holder		1	0	1
	PC4. report any faults or potential hazards to appropriate authority		1	0	1
	PC5. interpret weld procedure data sheets specifications		2	1	1
	PC6. select welding machines eg. transformer, inverters (AC/DC), rectifiers and generators, according to the materials and task		2	0	2
	PC7. select proper welding torch and tungsten electrode that meet the job requirement and specification		1	0	1
	PC8. obtain filler wire according to specifications		2	1	1
	PC9. prepare for the TIG welding process		2	0	2
	PC10. prepare the materials and joint in readiness for welding		2	0	2
	PC11. select tungsten electrode by the colour of the tip according to base metal, and correct diameter		3	1	2
	PC12. select and fit the welding shielding gases for a range of given applications		2	1	1
	PC13. plan the welding activities before they start them effectively and efficiently for achieving specifications as per WPS		3	1	2
	PC14. connect torches and components		3	1	2
	PC15. connect and adjust regulators and flow meters to cylinders		2	0	2
	PC16. read, set and adjust current (amperage) as required		2	0	2
	PC17. set pre-purge with shielding gas as required		2	0	2
	PC18. prepare tungsten by sharpening or balling it to desired tip shape		2	0	2
	PC19. set and verify gas flow rates		2	0	2
	PC20. prepare and support the joint, using the appropriate methods		3	1	2
	PC21. tack weld the joint at appropriate intervals, and check the joint for accuracy before final welding		2	0	2
	PC22. obtain clearance from quality control for weld joint before welding		1	0	1

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	PC23. match feed and travel speed as required		2	1	1
	PC24. perform TIG welding operations using appropriate welding techniques to meet welding procedure specification requirements		4	1	3
	PC25. use correct technique for starting the arc (using HF (high frequency) unit, scratching the electrode on the job material, lifting the electrode immediately after touching the job material)		3	1	2
	PC26. use correct angle of torch and filler wire		2	1	1
	PC27. weld the joint to the specified quality, dimensions and profile		3	1	2
	PC28. use manual welding and related equipment, to carry out TIG welding processes		3	1	2
	PC29. use welding consumables appropriate to the material and application, to include AC current types and DC current types		2	1	1
	PC30. produce joints of the required quality and of specified dimensional accuracy which achieve a weld quality equivalent to Level B of ISO 5817		4	1	3
	PC31. use both methods to produce the various joints a) with filler wire b) without filler wire (autogenously)		3	1	2
	PC32. produce joints from various materials in different forms		3	1	2
	PC33. weld joints in good access situations, in select positions		3	1	2
	PC34. shut down and make safe the welding equipment on completion of the welding activities		2	0	2
	PC35. make sure that the work area is maintained and left in a safe and tidy condition		1	0	1
	PC36. use appropriate methods and equipment to check the quality, and that all dimensional and geometrical aspects of the weld are to the specification		3	1	2
	PC37. check that the welded joint conforms to the specification, by checking various quality parameters using visual inspection		3	1	2
	PC38. identify various weld defects		2	0	2
	PC39. detect surface imperfections and deal with them appropriately		2	0	2
	PC40. carry out LPT tests to assess fine defect open to the surface not detected by visual inspection (VT)		3	1	2
	PC41. assist in preparation for non- destructive testing of the welds for a range of tests		2	1	1
	PC42. prepare for destructive tests on weld specimens for select tests		2	1	1
	PC43. follow the established organizational process for dealing with the welded pieces including handover, storage, safety and security, record		2	1	1

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	keeping, etc.				
	PC44. detect equipment malfunctions and deal with them appropriately		1	0	1
	PC45. deal promptly and effectively with problems within their control, and seek help and guidance from the relevant people if they have problems that they cannot resolve		1	0	1
	Total		**100**	**26**	**74**
2.CSC/N1335 Use basic health and safety practices at the workplace	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
	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
	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 where 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 environments		4	1	3
	PC21. perform and organize loss minimization or		3	1	2

Assessable Outcome	Assessment Criteria	Total Mark (600)	Out Of	Marks Allocation	
				Theory	Skills Practical
	rescue activity during an accident in real or simulated environments				
	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**
3.CSC/N1336 Work effectively with others	PC1. accurately receive information and instructions from the supervisor and fellow workers, getting clarification where required		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**
	Grand Total	**300**	**300**	**122**	**178**
	Percentage Weightage:			**40**	**60**
	Minimum Pass% to qualify (aggregate):			**60**	