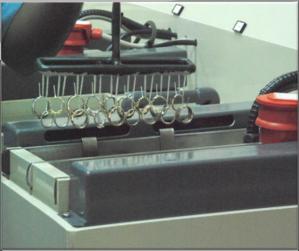




# QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR GEMS & JEWELLERY INDUSTRY



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# Occupational Standards(OS)?

What are

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

#### Contact Us:

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#### Introduction

#### **Qualifications Pack-Plater**

**SECTOR: GEMS & JEWELLERY** 

**SUB-SECTOR:** Cast and Diamonds-Set Jewellery

**OCCUPATION: Plating** 

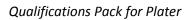
REFERENCE ID: G&J/Q3201

**ALIGNED TO:** NCO-2004/7313.35

**Plater**: Also known as 'Rhodium plater', in the cast and diamond-set jewellery manufacturing, Plater uses the Rhodium flashing process for giving bright white and reflective appearance to the finished jewellery piece.

**Brief Job Description:** The individual at work applies the layer of Rhodium, on the surface of the jewellery piece. The individual operates the plating plant or runs the manual process for applying Rhodium on the finished jewellery piece for giving bright white and reflective appearance to the precious metal jewellery.

**Personal Attributes:** The job requires the individual to have: attention to details and hand-eye coordination. Safe handling of hazardous chemicals and integrity in dealing with precious metal such as Gold and Rhodium are also important.







Job Details

Qualifications Pack Code		G&J/Q3201	
Job Role	Plater		
Credits(NVEQF/NVQF/NSQF)	TBD	Version number	1.0
Sector	Gems & Jewellery	Drafted on	29/05/13
Sub-sector	Cast and Diamond-set Jewellery	Last reviewed on	30/07/13
Occupation	Plating	Next review date	15/07/15

Job Role	Plater		
	Also known as 'Rhodium Plater'		
Role Description	Operating the plating plant or running manual process in order to apply Rhodium layer on the targeted surface of the finished jewelley piece		
NVEQF/NVQF level	4		
Minimum Educational Qualifications	B. Sc. (Chemistry)		
Maximum Educational Qualifications			
Training	Computer operations		
Experience	Not applicable		
Applicable National Occupational Standards (NOS)	Compulsory:  1. G&J/N3201 Plate the jewellery with Rhodium or other precious metal  2. G&J/N9901 Respect and maintain IPR  3. G&J/N9902 Coordinate with others  4. G&J/N9905 Maintain occupational health and safety  Optional:  Not applicable		
Performance Criteria	As described in the relevant OS units		

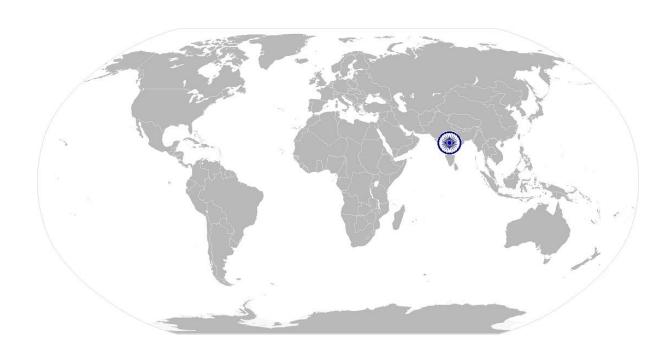






Plate the jewellery with Rhodium or other precious metal

# National Occupational Standard



#### **Overview**

Rhodium plating is the final step in the cast and diamond-set jewellery manufacturing. The objective of this unit is to apply layer of most expensive metal, rhodium on the jewellery piece to give bright white and reflective appearance.







#### G&J/N3201 Plate the jewellery with Rhodium or other precious metal

Unit Code	G&J/N3201
Unit Title (Task)	Plate the jewellery with Rhodium or other precious metal
Description	This OS unit is about giving bright white and reflective appearance to gold jewellery piece by rhodium plating process, or other colour using another precious metal
Scope	This unit/task covers the following:
	Collect jewellery the finished piece, consumables and instructions from supervisor  • read the job sheet for assessing the materials requirement  • receive material and instruction from supervisor  • inspect coated or plated areas for defects such as air bubbles or uneven coverage
	Mask for two-tone plating
	Repair and maintain plating plant  maintain the concentration of solutions for plating as per operating procedure  schedule the annual maintenance







G&J/N3201 Plate the jewellery with Rhodium or other precious metal

Performance Criteria(PC) w.r.t. the Scope			
Element	Performance Criteria		
Masking jewellery piece	To be competent, the user/individual on the job must be able to: PC1. accurately mask specified jewellery surface for two tone plating PC2. improve productivity for complex designs, which may take longer to mask		
Rhodium plating	To be competent, the user/individual on the job must be able to: PC3. monitor concentration levels of solutions in ultrasonic, degreasing, acid and plating solutions PC4. follow steps as per operating procedures for plating PC5. optimise usage of rhodium, which is most expensive metal PC6. handle chemicals with care and ensure zero accidents		
Productivity	To be competent, the user/individual on the job must be able to:  PC7. plan the plating process to ensure optimum use of the plating plant  PC8. deliver number of jewellery pieces plated as per target deliverable		
Quality of output	To be competent, the user/individual on the job must be able to:  PC9. generate rhodium brightness and spread on the jewellery piece as per job sheet or client requirement  PC10. minimise errors in masking and plating  PC11. deliver quality control okayed jewellery piece		
Knowledge and Understa			
A. Organizational Context	The user/individual on the job needs to know and understand:  KA1. company's policies on: quality, incentives, delivery standards, safety and hazards, integrity and IPR, and personnel management  KA2. importance of the individual's role in the workflow  KA3. reporting structure		
B. Technical Knowledge	The user/individual on the job needs to know and understand:  KB1. types of Rhodium and masking materials  KB2. the chemical composition, structure, and properties of substances used  KB3. chemical processes and transformations that follow  KB4. plating process planning  KB5. sizes and compositions of objects to be plated, and amounts of electrical current and time required  KB6. equipment maintenance such as cleaning tanks  KB7. pen plating as an alternative  KB8. potential work hazards while handling and chemicals		
Skills (S) [Optional]			
A. Core Skills/ Generic Skills	Basic reading and writing skills  The user/ individual on the job needs to know and understand how to:  SA1. read notes and operating manual of electroplating station  SA2. read company rules and compliance documents required to complete the work		







G&J/N3201 Pla	te the jewellery with Rhodium or other precious metal		
	Calculation skills		
	The user/individual on the job needs to know and understand how to:  SA3. monitor and measure thicknesses of electroplating on component parts in order to verify conformance to specifications, using micrometers  SA4. calculate and weigh the correct amount of rhodium requirement for replenishment		
	Teamwork and multitasking		
	The user/individual on the job needs to know and understand how:  SA5. to share work load as required		
	SA6. it is important to deliver plated jewellery for final QC on time SA7. to receive feedback from co-workers and QC and improve quality of output SA8. to share knowledge with co-workers		
B. Professional Skills	Electroplating		
	The user/individual on the job needs to know and understand how to:  SB1. assess smoothness of surface to be plated in order to avoid imperfections after Rhodium plating  SB2. plate that lasts long duration  SB3. present records of the plating plant		
	Using tools and machines		
	The user/individual on the job needs to know and understand how:  SB4. to use the right equipment in the plating process.  SB5. to understand safety and hazards involved  SB6. to understand tools and machine operations and its usage to be able to maintain and repair		
	Problem solving		
	The user/individual on the job needs to know and understand how to:  SB7. ensure that plating station operates properly with good maintenance ad replacement of worn plates		
	Reflective thinking		
	The user/individual on the job needs to know and understand how:  SB8. improve productivity and increase efficiency based on past working experience		
	Critical thinking		
	The user/individual on the job needs to know and understand how to: SB9. anticipate process disruption and reasons for delay		







#### Plate the jewellery with Rhodium or other precious metal

## **NOS Version Control**

NOS Code	G&J/N3201		
Credits(NVEQF/NVQF/NSQF)	TBD	Version number	1.0
Industry	Gems & Jewellery	Drafted on	29/05/13
Industry Sub-sector	Cast and Diamond-set Jewellery	Last reviewed on	30/07/13
Occupation	Plating	Next review date	15/06/15





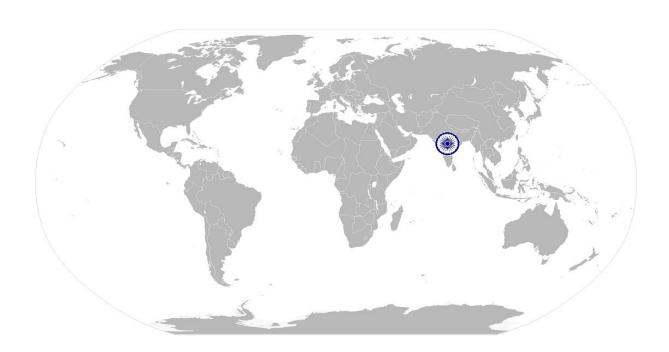






Respect and maintain IPR

# **National Occupational** Standard



#### **Overview**

This unit is about respecting intellectual property rights of the company's products and designs as well as avoiding infringement on IPR of other companies.







#### Respect and maintain IPR

Unit Code	G&J/N9901
Unit Title (Task)	Maintain IPR of company and respect IPR of other companies
Description	This OS unit is about protecting company's IPR and avoiding infringement to IPR of other companies
Scope	This unit/task covers the following:  Protect company's Intellectual Property Rights (IPR)  • prevent leak of new designs to competitors by reporting on time  • be aware of any of company's product or design patents  • report IPR violations observed in the market, to supervisor or company heads  Avoid infringement to IPR of other companies  • read copyright clause of the material published on the internet and any other printed material  • consult supervisor or senior management when in doubt about using publicly available information  • report any infringement observed in the company
Performance Criteria(P	
Element	Performance Criteria
Respecting and Maintaining IPR	To be competent, the user/individual on the job must:  PC1. be able to spot plagiarism and report  PC2. be aware of patents and IPR  PC3. not be involved in IPR violations
Knowledge and I	Understanding (K)
A. Organizational Context	The user/individual on the job needs to know and understand: KA1. company's policies on IPR and plagiarism KA2. reporting structure KA3. company's unique product range
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. patents and IPR laws KB2. how IPR protection is important for competitiveness of a company
Skills (S) [Optional]	
A. Core Skills/	Communication skills
Generic Skills	The user/ individual on the job needs to know and understand how to: SA1. effectively communicate any observed IPR violations or order leaks
B. Professional Skills	Decision making
	The user/individual on the job needs to know and understand how to: SA2. report potential sources of violations

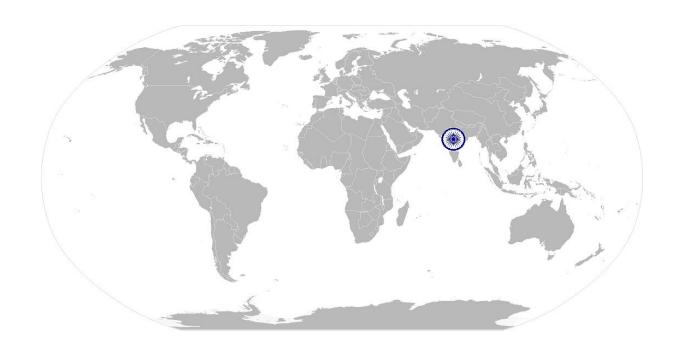






G&J/N9901 Respect and maintain IPR

G&J/N9901	Respect and maintain IPR
	Reflective thinking
	The user/individual on the job needs to know and understand to:
	SA3. learn from past mistakes and report IPR violations on time
	Critical thinking
	The user/individual on the job needs to know and understand how to:
	SA4. spot signs of violations and alert authorities in time





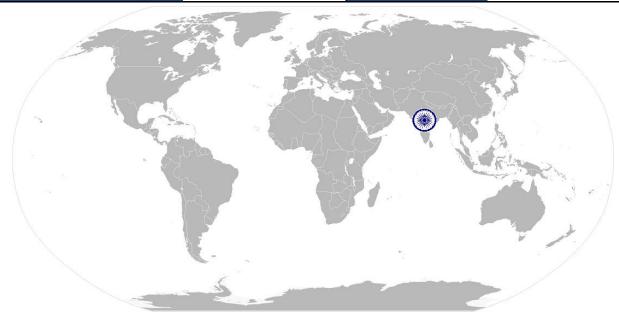




#### Respect and maintain IPR

## **NOS Version Control**

NOS Code	G&J/N9901		
Credits(NVEQF/NVQF/NSQF)	TBD	Version number	1.0
Industry	Gems & Jewellery	Drafted on	29/05/13
Industry Sub-sector	Cast and Diamond-set Jewellery	Last reviewed on	30/07/13
		Next review date	15/06/15



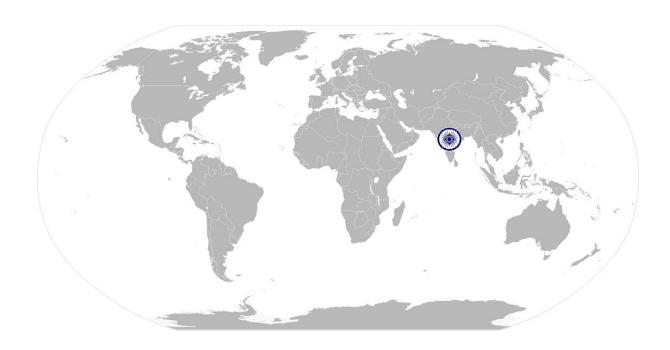






**Coordinate with others** 

# National Occupational Standard



#### **Overview**

This unit is about team work and level of communication with colleagues or clients. It determines the ability to work as a team member, share work and multi-task in order to achieve the deliverables on schedule.







#### **Coordinate with others**

Unit Code	G&J/N9902		
Unit Title (Task)	Interact with colleagues and seniors		
Description	This OS unit is about communicating with colleagues and seniors in order to achieve smooth and hazard-free work flow		
Scope	Interact with supervisor  • receive work instructions and raw materials from reporting supervisor  • communicate to reporting supervisor about process-flow improvements, product defects received from previous process, repairs and maintenance of tools and machinery as required  • communicate any potential hazards or expected process disruptions  • handover completed work to supervisor  Interact with colleagues within and outside the department  • work as a team with colleagues and share work as per their or own work load and skills  • work with colleagues of other departments  • communicate and discuss work flow related difficulties in order to find solutions with mutual agreement  • receive feedback from qc and rework in order to complete work on time		
Performance Crite	Performance Criteria(PC) w.r.t. the Scope		
Floreset	Paula muse and Cuita dia		

Performance Criteria(PC) w.r.t. the Scope			
Element	Performance Criteria		
Interaction with supervisor	To be competent, the user/individual on the job must be able to: PC1. understand the work output requirements PC2. comply with company policy and rule PC3. deliver quality work on time as required by reporting any anticipated reasons for delays		
Interactions with colleagues and other departments	To be competent, the user/individual on the job must be able to:  PC4. put team over individual goals  PC5. be able to resolve conflicts  PC6. learn how to multi-task relevant activities		
Knowledge and Unders	standing (K)		
A. Organizational Context	The user/individual on the job needs to know and understand:  KA1. company's policies on: preferred language of communication, reporting and escalation policy, quality delivery standards, and personnel management  KA2. reporting structure		
B. Technical Knowledge	The user/individual on the job needs to know and understand how to:  KB1. communicate effectively  KB2. build team coordination		







#### **Coordinate with others**

Skills (S) [Optional]						
A. Core Skills/	Communication skills					
Generic Skills	The individual on the job needs to know and understand how to:					
	SA1. read and write preferred language of communication as prescribed by the					
	company					
	SA2. read job sheets and interpret technical details mentioned in the job sheet					
B. Professional Ski	Is Decision making					
	The individual on the job needs to know and understand:					
	SB1. how to spot and communicate potential areas of disruptions to work process					
	and report the same					
	SB2. when to report to supervisor and when to deal with a colleague individually,					
	depending on the type of concern					
	Reflective thinking					
	The individual on the job needs to know and understand how to:					
	SB3. improve work processes by interacting with others and adopting best					
	practices					
	Critical thinking					
	The individual on the job needs know and understand how to:					
	SB4. spot process disruptions and delays and report and communicate with					
	solutions					



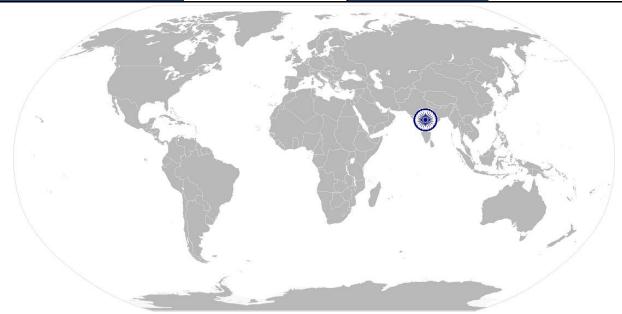




#### **Coordinate with others**

## **NOS Version Control**

NOS Code	G&J/N9902				
Credits(NVEQF/NVQF/NSQF)	TBD Version number 1.0				
Industry	Gems & Jewellery	Drafted on	29/05/13		
Industry Sub-sector	Cast and diamond-set jewellery	Last reviewed on	30/07/13		
		Next review date	15/06/15		





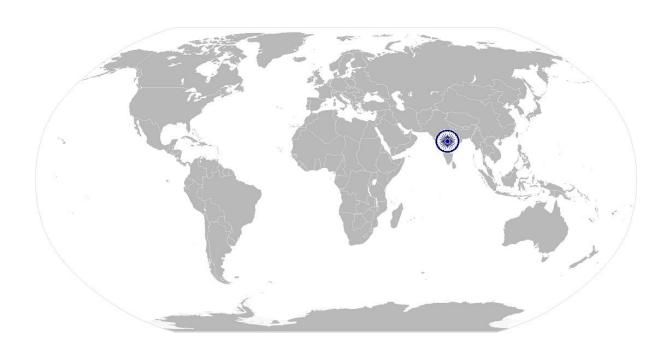






G&J/N9905 Maintain occupational health and safety

# **National Occupational** Standard



#### **Overview**

This unit is about commitment towards reporting potential hazards, taking preventive measures to contain accidents in order to make the work environment safe for self and colleagues and maintaining occupational health and safety.







**Unit Code** 

#### Maintain occupational health and safety

G&J/N9905

Unit Title	Maintain occupational health and safety					
(Task)						
Description	This OS unit is about being aware of, communicating and taking steps towards minimizing potential hazards and dangers of accidents on the job and maintaining occupational health and safety					
Scope	This unit/task covers the following:					
	<ul> <li>Understand potential sources of accidents</li> <li>to avoid accidents related to use of potentially dangerous chemicals, sharp tools and machines</li> <li>Use safety gear to avoid accidents</li> <li>wear safety gear such as goggles, mask, gloves, ear plugs</li> <li>Actively participate in the health and safety awareness campaigns</li> <li>attend fire drills organised by the company or industrial zone</li> <li>learn first aid procedure</li> <li>be alert about designated assembly area in the event of an emergency</li> <li>read and understand the evacuation and emergency procedures</li> <li>Communicate to reporting supervisor about:</li> <li>process flow improvements that can reduce anticipated or repetitive hazards</li> <li>mishandling of tools, machines or hazardous materials</li> <li>electrical problems that could result in accident</li> </ul>					
Performance Criteria(P	C) w.r.t. the Scope					
Element	Performance Criteria					
Communicating potential accident points	To be competent, the user/individual on the job must be able to: PC1. spot and report potential hazards on time PC2. follow company policy and rules regarding use of hazardous materials PC3. attend and actively participate in the health and safety campaigns organised by the company					
Using safety gear	To be competent, the user/individual on the job must be able to: PC4. use or wear safety gear as per the rules of the company					
Knowledge and Unders	standing (K)					
	The user/individual on the job needs to know and understand:					
A. Organizational Context	KA1. company's policies on: safety and hazards and personnel management					
	KA2. reporting structure					
B. Technical Knowledge	The user/individual on the job needs to know and understand:  KB1. how different chemicals react and what could be the danger from them  KB2. how to use machines and tools without suffering bodily harm					







G&J/N9905 Maintain occupational health and safety

Ski	lls (S) [Optional]					
A.	Core Skills/	Communication skills				
	Generic Skills	The individual on the job needs to know and understand how to:				
		SA1. effectively communicate the danger				
		Organising skills				
		The individual on the job needs to know and understand how to:				
		SA2. keep all the tools in an organised manner so as to avoid accidents				
		SA3. keep the work environment safe and clean				
B.	<b>Professional Skills</b>	Decision making				
		The individual on the job needs to know and understand how to:				
		SB1. report potential sources of danger				
		SB2. follow prescribed procedure in the event of an accident				
		SB3. wear appropriate safety gear to avoid an accident				
		Reflective thinking				
		The individual on the job needs to know and understand to:				
		SB4. learn from past mistakes regarding use of hazardous machines or chemicals				
		Critical thinking				
		The individual on the job needs to know and understand how to:				
		SB5. spot danger				
		Decision making				
		The individual on the job needs to know and understand how to:				
		SB6. report potential sources of danger				
		SB7. follow prescribed procedure in the event of an accident				
		SB8. wear appropriate safety gear to avoid an accident				



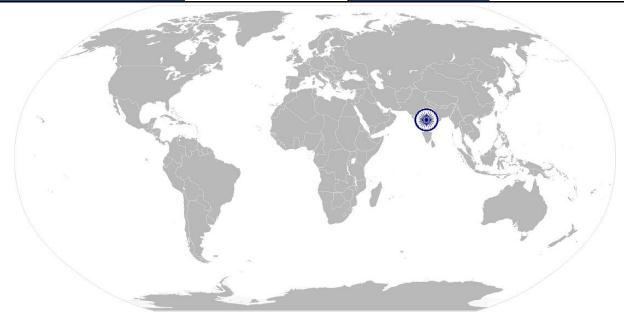




### Maintain occupational health and safety

## **NOS Version Control**

NOS Code	G&J/N9905			
Credits(NVEQF/NVQF/NSQF)	TBD Version number 1.0			
Industry	Gems & Jewellery	29/05/13		
Industry Sub-sector	Cast and diamond-set jewellery	30/07/13		
		Next review date	15/06/15	







Keywords /Terms	Description				
Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.				
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.				
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.				
Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or an area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of OS.				
Sub-function	Sub-functions are sub-activities essential to fulfil the achieving the objectives of the function.				
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.				
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.				
Performance Criteria	Performance criteria are statements that together specify the standard of performance required when carrying out a task.				
National Occupational	NOS are occupational standards which apply uniquely in the Indian				
Standards (OS)	context.				
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.				
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'				
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.				
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.				
Scope	Scope is a 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 quality of performance required.				
Knowledge and	Knowledge and understanding are statements which together specify the				
Understanding	technical, generic, professional and organisational specific knowledge				
Organisational Context	that an individual needs in order to perform to the required standard.  Organisational context includes the way the organisation is structured				
Organisational Context	and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.				
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish				



#### Qualifications Pack for Plater



	specific designated responsibilities.
Core Skills/ Generic Skills	Core skills or generic skills are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment 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.
Keywords /Terms	Description
CAD	Computer Aided Design
CAM	Computer Aided Manufacturing
IPR	Intellectual Property Rights
NOS	National Occupational Standard(s)
NVQF	National Vocational Qualifications Framework
NSQF	National Qualifications Framework
NVEQF	National Vocational Education Qualifications Framework
QP	Qualifications Pack

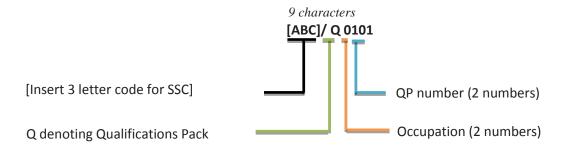




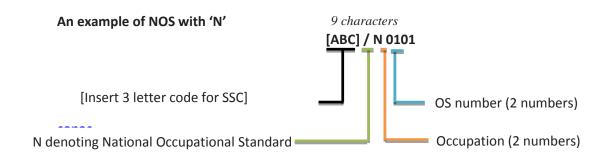
#### **Annexure**

#### **Nomenclature for QP and NOS**

#### **Qualifications Pack**



#### **Occupational Standard**



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#### Qualifications Pack for Plater



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

Sub-sector	Range of Occupation numbers
Handmade gold and gems-set jewellery	01-20
Cast and diamond-set jewellery	21-40
Diamond processing	41-60
Gemstone processing	61-80
Jewellery retailing	81-98

Sequence	Description	Example
Three letters	Industry name	G&J
Slash	/	/
Next letter	Whether <b>Q</b> P or <b>N</b> OS	N
Next two numbers	Occupation code	01
Next two numbers	OS number	01





#### **CRITERIA FOR ASSESSMENT OF TRAINEES**

#### Job Role Plater

#### Qualification Pack G&J/Q3201

#### Sector Skill Council Gem & Jewellery

#### **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 theory question papers for candidates at every examination/training centre. (as per assessment criteria below)
- 4. Individual assessment agencies will create practical tests for skill evaluation for candidates at every examination/training centre. (as per assessment criteria below)
- 5. To pass the Qualification Pack, every candidate should score a minimum of 50% in theory and 70% in practical to successfully clear the assessment.
- 6. In case of successfully passing only certain number of NOS's, the candidate is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.

				Marks Allocation	
		Total Marks (80+20)	Out Of	Theory	Skills Practical
1.G&J/N3201 Plate the jewellery with Rhodium or other precious metal	PC1. accurately mask specified jewellery surface for two tone plating		12	2	10
	PC2. improve productivity for complex designs, which may take longer to mask		5	0	5
	PC3. monitor concentration levels of solutions in ultrasonic, degreasing, acid and plating solutions	75	7	1	6
	PC4. follow steps as per operating procedures for plating		6	1	5
	PC5. optimise usage of rhodium, which is most expensive metal		13	3	10
	PC6. handle chemicals with care and ensure zero accidents		8	1	7





	PC7. plan the plating process to ensure optimum use of the plating plant		8	1	7
	PC8. deliver number of jewellery pieces plated as per target deliverable		3	0	3
	PC9. generate rhodium brightness and spread on the jewellery piece as per job sheet or client requirement		6	1	5
	PC10. minimise errors in masking and plating		4	0	4
	PC11. deliver quality control okayed jewellery piece		3	0	3
		Total	75	10	65
2.G&J/N9901 Respect and maintain IPR	PC1. be able to spot plagiarism and report		3	2	1
	PC2. be aware of patents and IPR	9	4	1	3
	PC3. not be involved in IPR violations		2	1	1
		Total	9	4	5
3. G&J/N9902 Coordinate with others	PC1. Understand the work output requirements		2	1	1
	PC2. Understand company policy and rule		1	0	1
	PC3. Deliver quality work on time as required by reporting any anticipated reasons for delays	8	1	0	1
	PC4. Put team over individual goals		1	1	0
	PC5. be able to resolve conflicts		1	0	1
	PC6. learn how to multi-task relevant activities		2	1	1
		Total	8	3	5
4. G&J/N9905 Maintain occupational health and safety	PC1. Spot and report potential hazards on time		2	1	1
	PC2. Follow company policy and rules regarding use of hazardous materials	8	2	0	2



#### Qualifications Pack for Plater



PC3. Attend and actively participate in the health and safety campaigns organised by the company		2	1	1
PC4. Use or wear safety gear as per the rules of the company		2	1	1
	Total	8	3	5