

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR GEMS & JEWELLERY INDUSTRY



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What are Occupational Standards(OS)?

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

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Introduction

Qualifications Pack – Casting machine operator

SECTOR: GEMS & JEWELLERY

SUB-SECTOR: Cast and Diamonds-Set Jewellery

OCCUPATION: Casting

REFERENCE ID: G&J/Q2801

ALIGNED TO: NCO-2004/ NIL

Casting Machine Operator: A Casting Machine Operator is also known as ‘Caster’ in the Indian jewellery making industry. In the cast and diamond-set jewellery manufacturing, investment casting is among the most critical job roles.

Brief Job Description: The individual at work converts wax models to jewellery pieces through investment casting process. The individual invests the flask and then operates semi to fully-automated machines to pour and regulate the flow of molten precious metal into cavities created by melted wax, to produce cast jewellery pieces on mass scale.

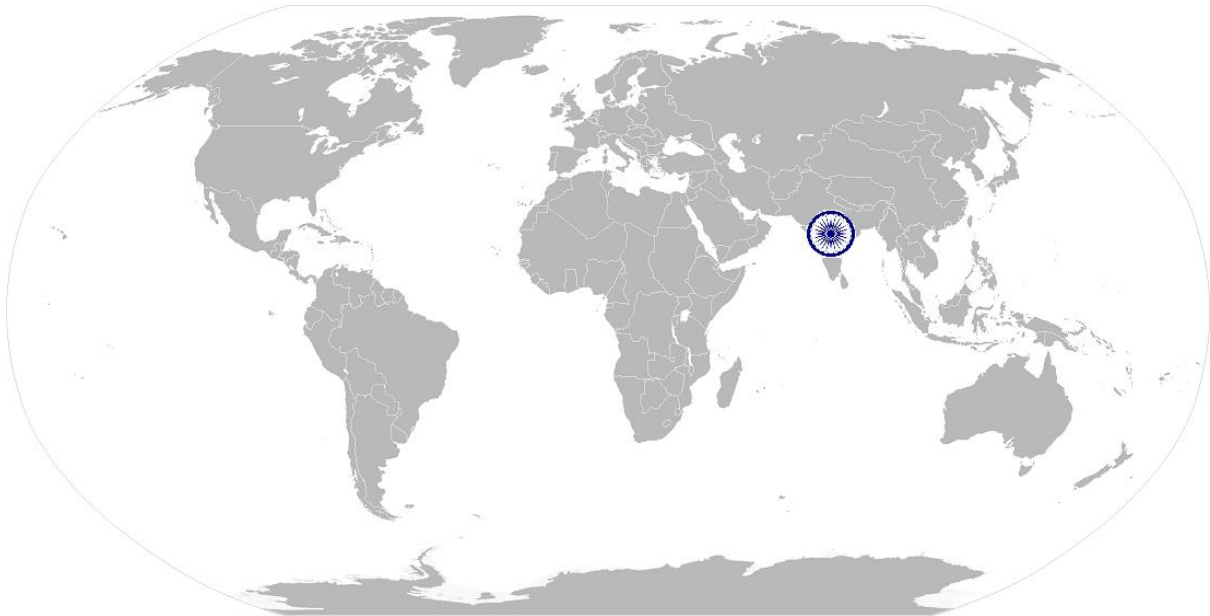
Personal Attributes: The job requires the individual to have: attention to details, physical strength to handle heavy equipment, ability to multi-task in a process driven team and work in a high temperature environment for long hours. A caster is expected to have integrity in dealing with high value jewellery.

Job Details

Qualifications Pack Code	G&J/Q2801		
Job Role	Casting machine operator		
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	Casting	Next review date	15/07/15

Job Role	Casting machine operator Also called 'Caster'
Role Description	Preparing to invest a flask and operating casting machine to pour and regulate the flow of molten precious metal into cavities to produce jewellery pieces on mass scale
NVEQF/NVQF level	4
Minimum Educational Qualifications	Minimally qualified
Maximum Educational Qualifications	
Training	Not applicable
Experience	Not applicable
Applicable National Occupational Standards (NOS)	<p>Compulsory:</p> <ol style="list-style-type: none"> G&J/N2801 Operate casting machine G&J/N9901 Respect and maintain IPR G&J/N9902 Coordinate with others G&J/N9905 Maintain occupational health and safety <p>Optional: Not applicable</p>
Performance Criteria	As described in the relevant OS units

National Occupational Standard



Overview

This unit is about converting wax models to jewellery pieces through investment casting process. This process includes production cycle planning and precisely controlling machine parameters in order to manufacture jewellery with minimal rework. Investment casting is the most critical step in cast and diamond-set jewellery manufacturing.

G&J/N2801

Operate the casting machine

National Occupational Standard

Unit Code	G&J/N2801
Unit Title (Task)	Operate the casting machine
Description	This OS unit is about making investment flask, implement burnout cycle, calculate and weigh the correct amount of alloy, melt and cast the alloy into jewellery pieces
Scope	<p>This unit/task covers the following:</p> <p>Collect wax tree and alloys from supervisor and consumables from stores</p> <ul style="list-style-type: none"> • collect wax trees and inspect for any imperfections in the wax tree such as loosely soldered wax pieces on central stem • plan the casting cycle in consultation with production manager • calculate and weigh the required amount of alloy (precious metal) required as per wax tree and job sheet <p>Melt the alloys</p> <ul style="list-style-type: none"> • add the alloys in a melting machine • set the temperature as per machine specifications mentioned for the alloy • stir the molten alloy and remove after specified time • solidify and cool the alloy in water • collect carbon particles and dust separately <p>Invest a flask</p> <ul style="list-style-type: none"> • prepare slurry from specified amount of Plaster of Paris (PoP), boric acid and demineralised (DM) water • Place the wax tree in the flask • Pour the slurry over wax tree in the flask and leave it for drying at room temperature as per operating procedure • remove the rubber base from the bottom of flask and prepare the flask for burnout cycle <p>Execute burnout cycle on flask to melt wax tree</p> <ul style="list-style-type: none"> • set the furnace cycle as per industry specifications • place the flask in the furnace for 12-16 hours, depending on the furnace temperature specifications • set the temperature and time of furnace according to its operating parameters • bring out the flask and leave it at room temperature for cooling <p>Melt and cast the precious metal alloy</p> <ul style="list-style-type: none"> • set casting machine parameters as per machine's operating specifications such as temperature and duration of casting • place the flask out from burnout cycle, in the casting machine • add precious metal alloy in the crucible of casting machine • pour the metal alloy – for manual operations or wait for metal alloy to be poured automatically – once the required temperature is reached • remove the flask and leave it for cooling at the room temperature

G&J/N2801

Operate the casting machine

	<p>Clean the precious metal tree</p> <ul style="list-style-type: none"> • Clean the flask under high pressure water spray to remove PoP from precious metal tree • Dry precious metal tree with blotting paper <p>Control gold loss</p> <ul style="list-style-type: none"> • collect gold from melting and casting machine • tally account as per specified standards • conduct regular and controlled environment cleaning for collection • maintain the proportion of re-use of gold and new as per company standards <p>Detect product defects</p> <ul style="list-style-type: none"> • identify design manufacturability in terms of flow of metal in casting machine • inform supervisor if product has casting defects such as porosity, blisters, bubbles, cracks, etc. • understand the type of defect, assess if filing and polishing unit can rectify the defect or rework or design change is required <p>Quality check</p> <ul style="list-style-type: none"> • melt and recast product returned from QC • check weight as per design <p>Report problems related to:</p> <ul style="list-style-type: none"> • problems with machines and equipment • shortage of consumables and metal alloys • reasons for anticipated delays that may adversely affect delivery
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Melting the alloys	To be competent, the user/individual on the job must be able to: <ul style="list-style-type: none"> PC1. accurately compute alloy required as per wax tree weight PC2. proportionately use re-cycled and new gold in the alloy making PC3. ensure minimal accidents while handling molten metal
Investment	To be competent, the user/individual on the job must be able to: <ul style="list-style-type: none"> PC4. mix of all the required materials such as PoP, boric acid and DM water for investment process as per industry standards PC5. prepare bubble-free investment of flask
Running burnout cycle	To be competent, the user/individual on the job must be able to: <ul style="list-style-type: none"> PC6. constantly monitor furnace temperature for complete burnout cycle duration so that an incomplete process does not lead to casting defects
Casting	To be competent, the user/individual on the job must be able to: <ul style="list-style-type: none"> PC7. set machine parameters as per machine specifications prescribed for a particular alloy

G&J/N2801

Operate the casting machine

	PC8. Pour metal at the right temperature in manual pouring mode
Productivity	To be competent, the user/individual on the job must be able to: PC9. properly plan casting cycles for the optimum utilisation of machines PC10. minimise rework and precious metal loss in the casting process PC11. timely deliver casted jewellery pieces to next process PC12. Produce number of casted jewellery pieces or precious metal tree as per target deliverable and quality approved by the supervisor
Quality of output	To be competent, the user/individual on the job must be able to: PC13. produce defect-free casted jewellery pieces PC14. ensure minimum damage to the set stones during casting process PC15. produce Quality Control okayed cast jewellery piece
Resolving problems	To be competent, the user/individual on the job must be able to: PC16. deliver casted jewellery pieces on time by reporting problems faced or anticipated well in advance
Knowledge and Understanding (K)	
A. Organizational Context	The user/individual on the job needs to know and understand: KA1. company's policies on: acceptable limits of gold and other precious metal loss, quality, incentives, delivery standards, safety and hazards, integrity and IPR, personnel management and dress code 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. metallurgy (gold alloy properties including malleability) KB2. methods of calculating required quantities of alloys KB3. production process planning KB4. uses of different types of tools, consumables and machines in jewellery casting process KB5. potential work hazards while handling molten metal
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, designs and instructions on job sheet SA2. read company rules and compliance documents required to complete the work
	Calculation skills
	The user/individual on the job needs to know and understand how to: SA3. calculate and weigh the correct amount of alloy required as per wax tree and job sheet SA4. assess gold loss during the casting process so as to deliver jewellery pieces of required weight

G&J/N2801

Operate the casting machine

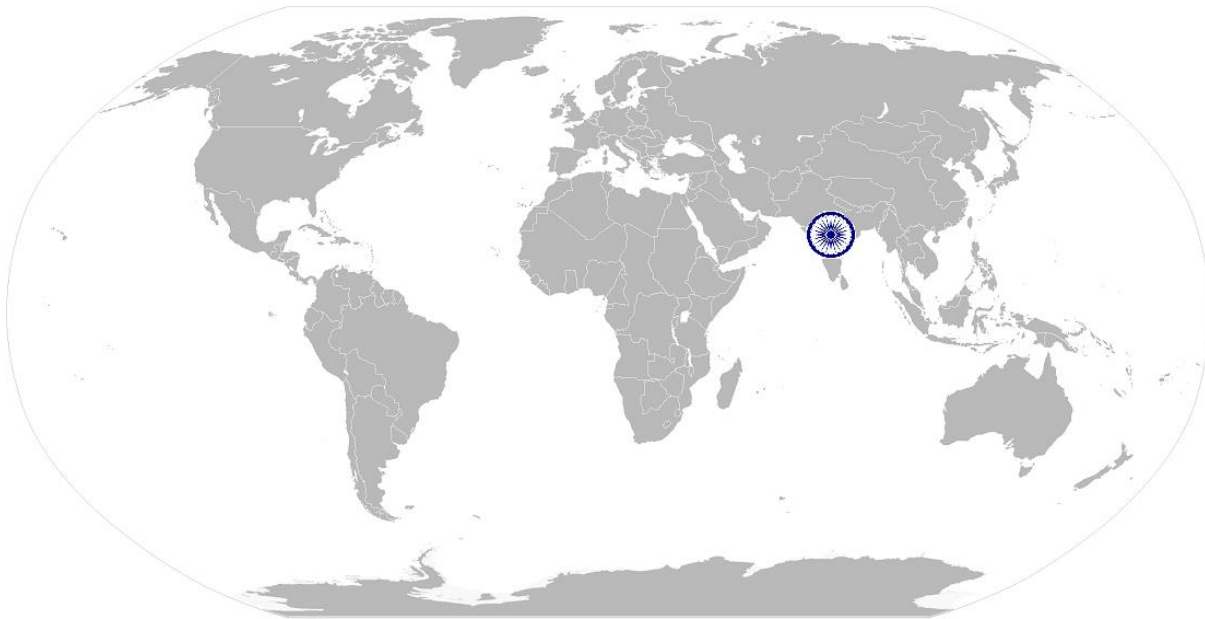
B. Professional Skills	Teamwork and multitasking
	The user/individual on the job needs to know and understand how to: SA5. share work load as required SA6. receive feedback from co-workers and supervisor SA7. share knowledge with co-workers and supervisor
	Reading design
	The user/individual on the job needs to know and understand: SB1. the steps involved in casting jewellery as per design
	Use of tools and machines
	The user/individual on the job needs to know and understand how to: SB2. use of following key tools, machines and consumables for casting process: <ul style="list-style-type: none"> • Investment flasks • Measuring cylinder • Carbon stirring rod • Plaster of Paris (PoP) • PoP particulate filters • Slurry mixing equipment • Metal Melter • Casting machine • Kilns • Burnout ovens/furnace • Water jet spray gripper SB3. work in a safe environment, i.e., without injuries SB4. organise tools and documents required for the job
	Decision making
	The user/individual on the job needs to know and understand how to: SB5. plan the casting batches for optimum utilisation of the casting machine
	Reflective thinking
	The user/individual on the job needs to know and understand how to: SB6. give design inputs, for example, the number and size of sprue added to master model, for required flow of molten metal SB7. improve work processes SB8. reduce precious metal loss SB9. effectively use the casting processes to improve the quality and productivity of the jewellery piece
Critical thinking	
The user/individual on the job needs to know and understand how to: SB10. anticipate process disruption and reasons for delay	

G&J/N2801

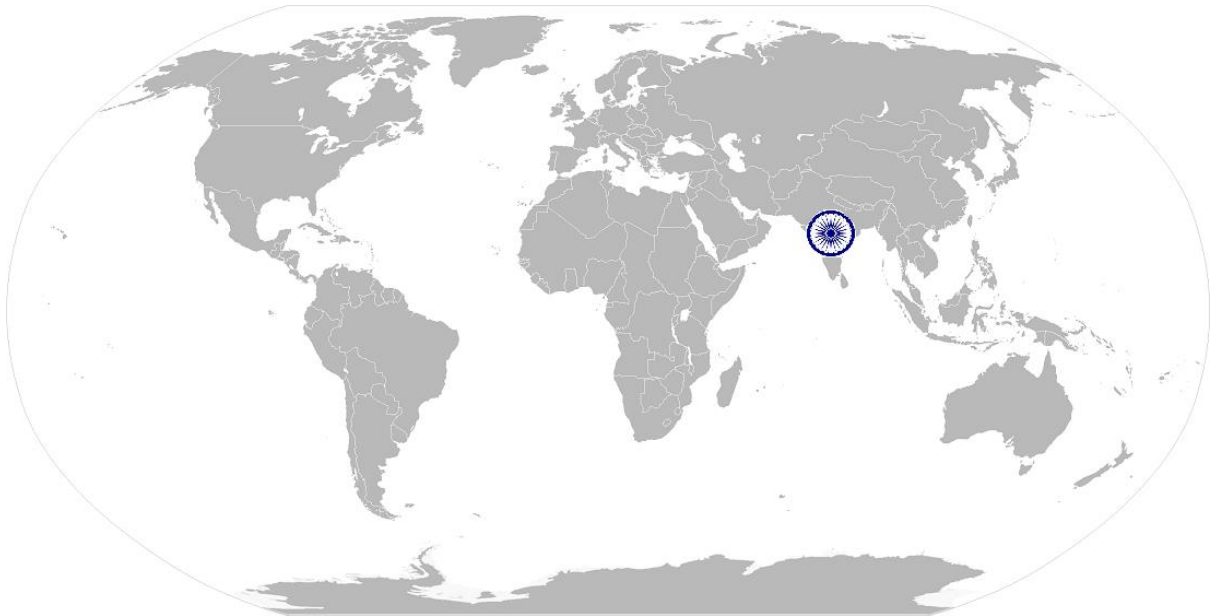
Operate the casting machine

NOS Version Control

NOS Code	G&J/N2801		
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	Casting	Next review date	15/06/15



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.

G&J/N9901

Respect and maintain IPR

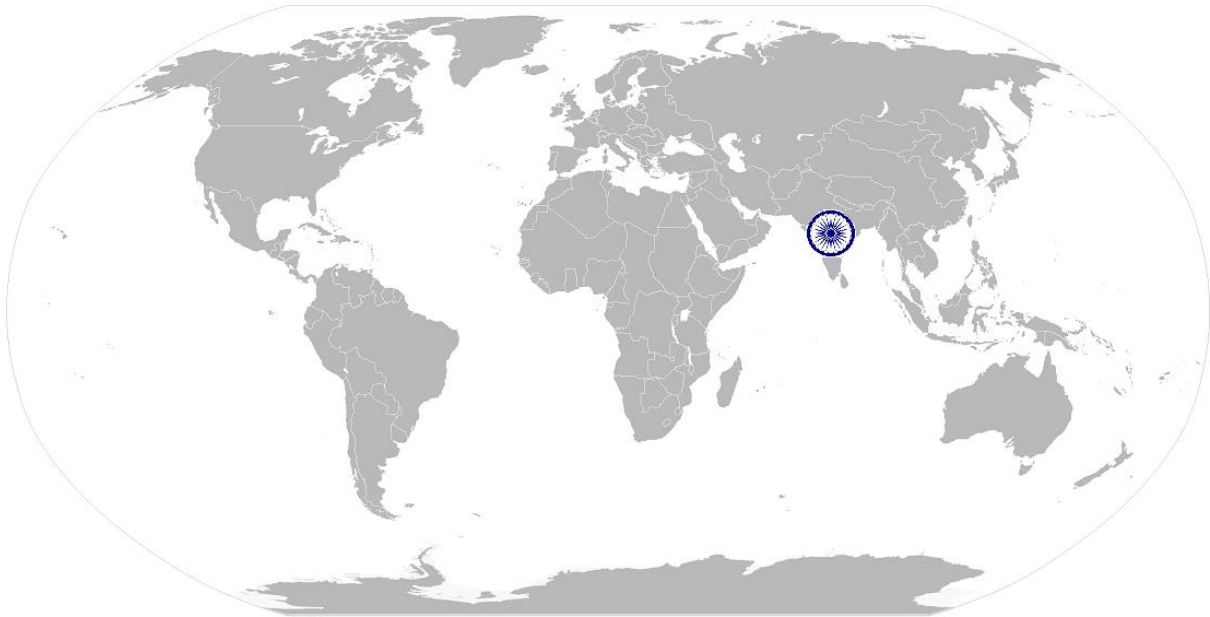
National Occupational Standard

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	<p>This unit/task covers the following:</p> <p>Protect company's Intellectual Property Rights (IPR)</p> <ul style="list-style-type: none"> • 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 <p>Avoid infringement to IPR of other companies</p> <ul style="list-style-type: none"> • 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(PC) w.r.t. the Scope	
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 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/ Generic Skills	Communication 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

	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

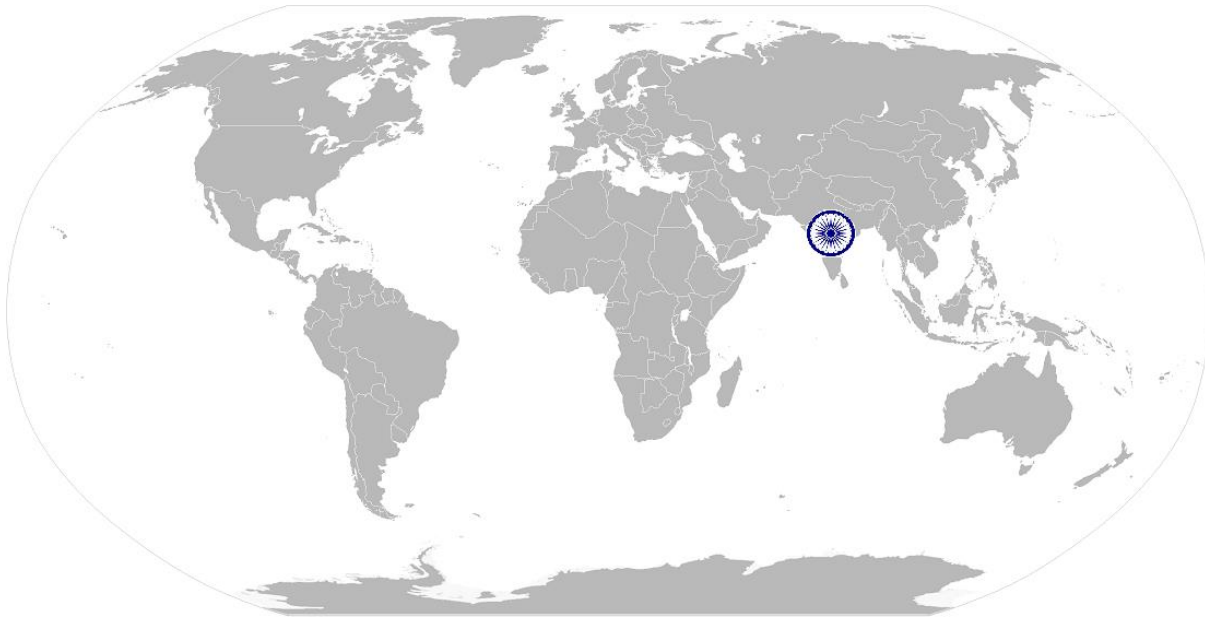


G&J/N9901

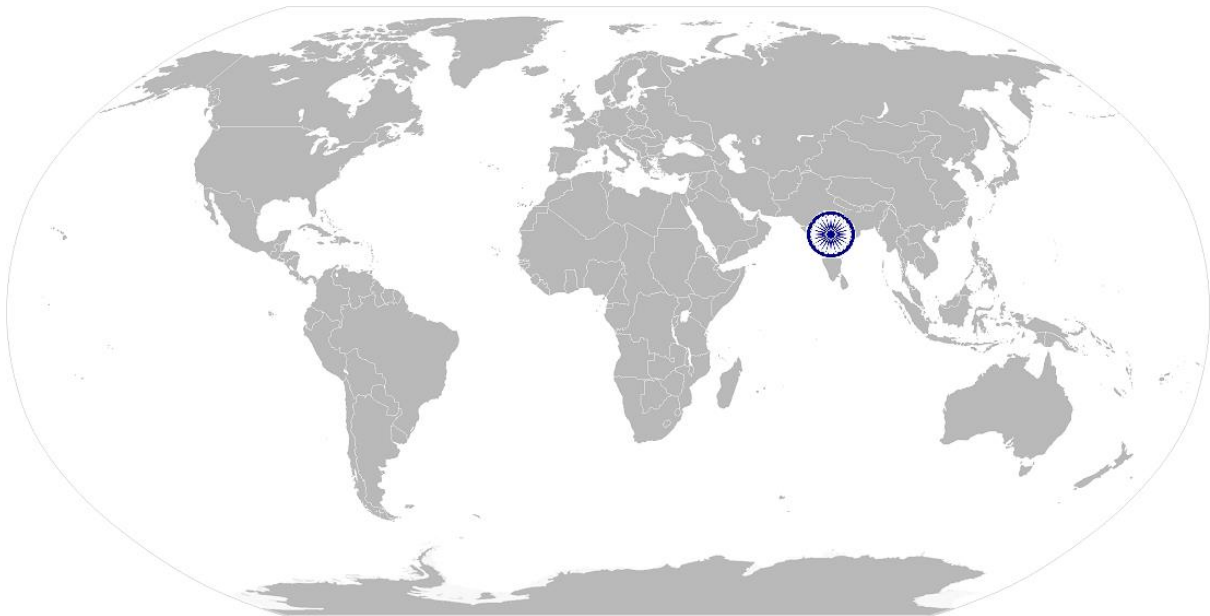
Respect and maintain IPR

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



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.

G&J/N9902

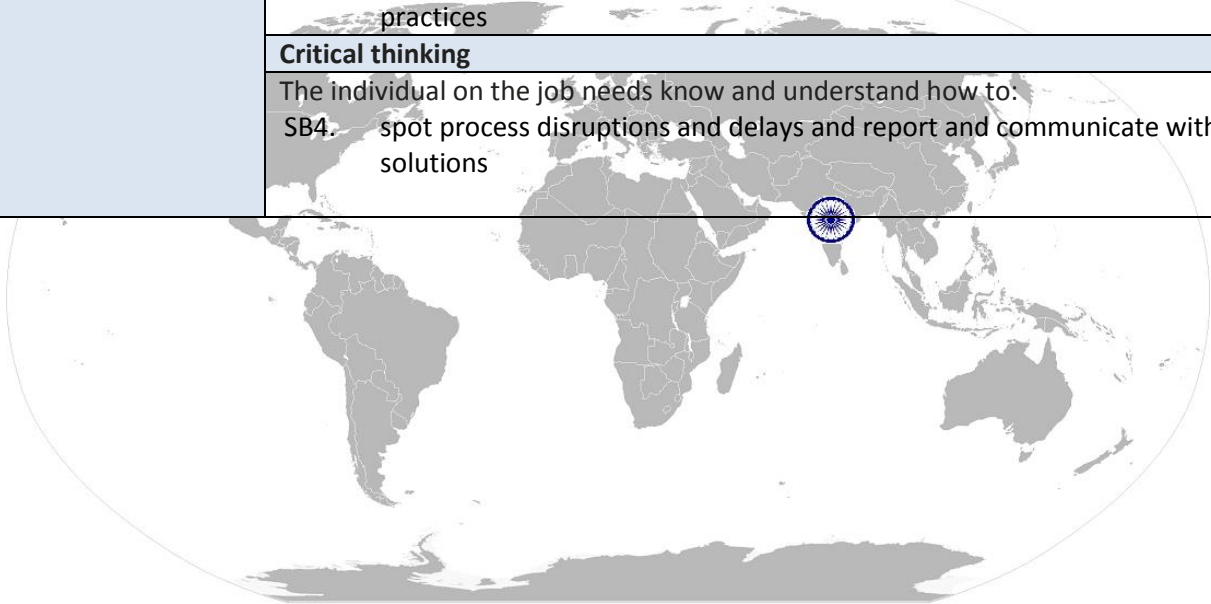
Coordinate with others

National Occupational Standard	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	<p>This unit/task covers the following:</p> <p>Interact with supervisor</p> <ul style="list-style-type: none"> • 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 <p>Interact with colleagues within and outside the department</p> <ul style="list-style-type: none"> • 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 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 Understanding (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	

G&J/N9902

Coordinate with others

Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Communication 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 Skills	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	

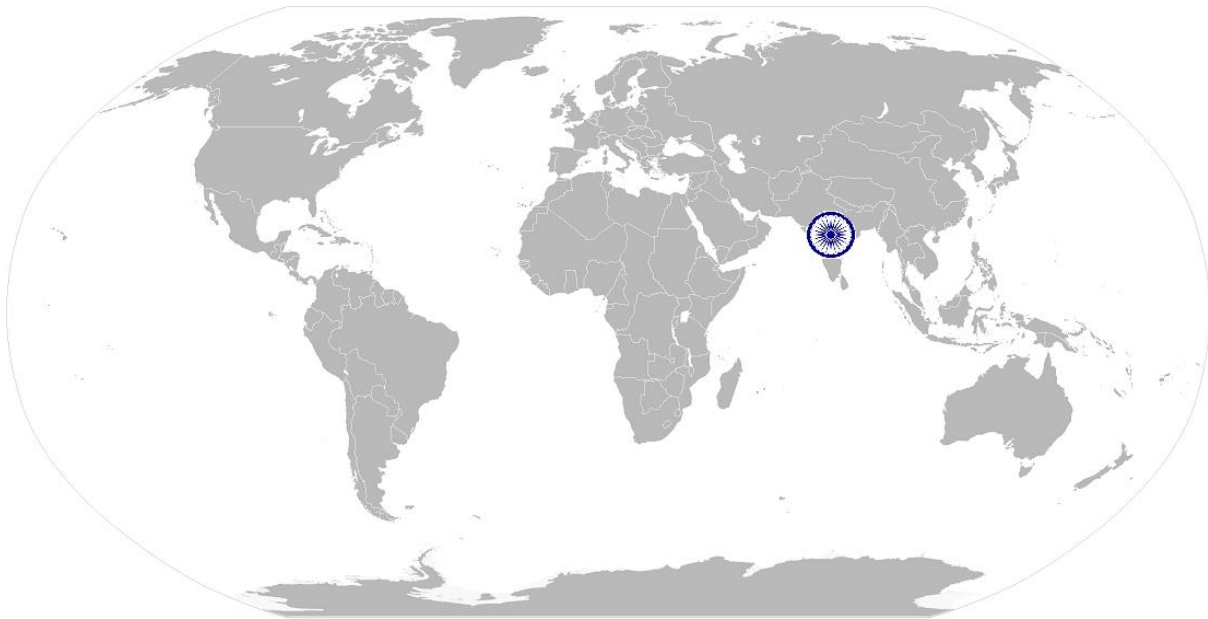


G&J/N9902

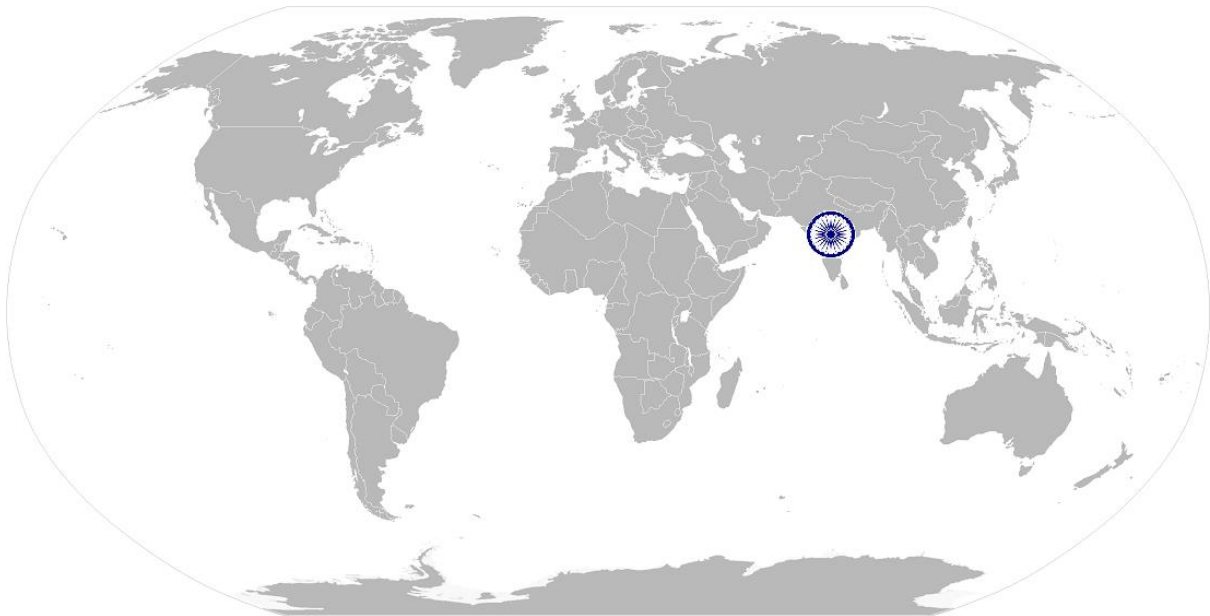
Coordinate with others

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



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.

G&J/N9905

Maintain occupational health and safety

National Occupational Standard

Unit Code	G&J/N9905
Unit Title (Task)	Maintain occupational health and safety
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	<p>This unit/task covers the following:</p> <p>Understand potential sources of accidents</p> <ul style="list-style-type: none"> to avoid accidents related to use of potentially dangerous chemicals, sharp tools and machines <p>Use safety gear to avoid accidents</p> <ul style="list-style-type: none"> wear safety gear such as goggles, mask, gloves, ear plugs <p>Actively participate in the health and safety awareness campaigns</p> <ul style="list-style-type: none"> attend fire drills organised by the company or industrial zone learn first aid procedure be alert about designated assembly area in the event of an emergency read and understand the evacuation and emergency procedures <p>Communicate to reporting supervisor about:</p> <ul style="list-style-type: none"> process flow improvements that can reduce anticipated or repetitive hazards mishandling of tools, machines or hazardous materials electrical problems that could result in accident
Performance Criteria(PC) 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 Understanding (K)	
A. Organizational Context	The user/individual on the job needs to know and understand: 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

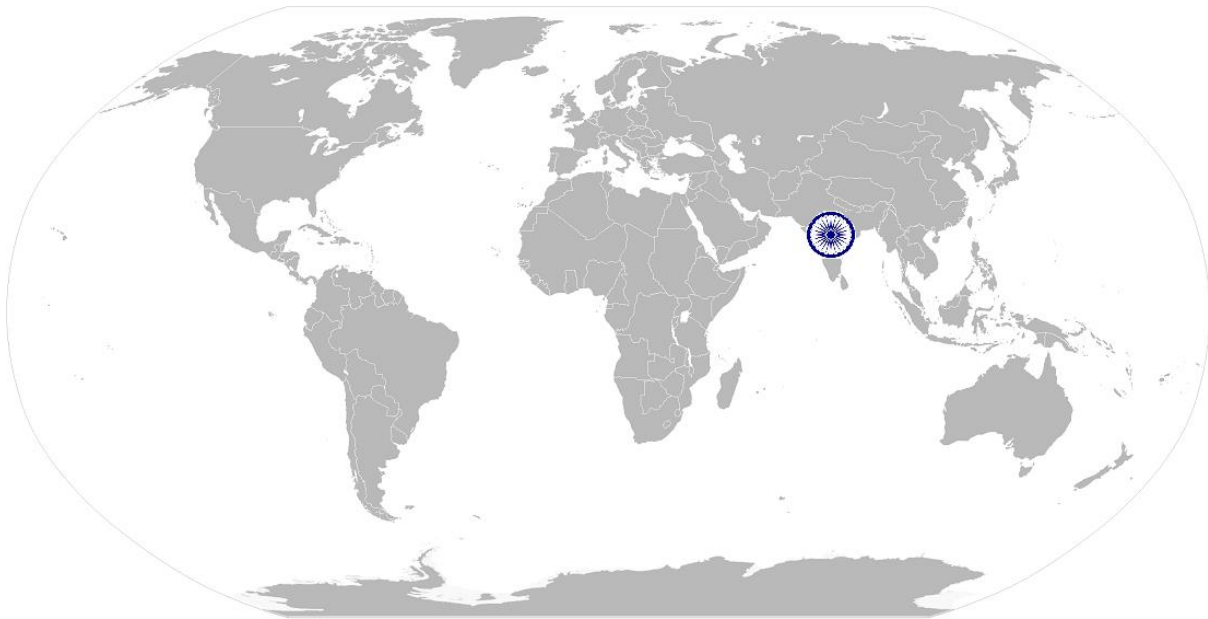
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Communication skills The individual on the job needs to know and understand how to: SA1. effectively communicate the danger
	Organising skills The individual on the job needs to know and understand how to: SA2. keep all the tools in an organised manner so as to avoid accidents SA3. keep the work environment safe and clean
	B. Professional Skills
	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

G&J/N9905

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	Drafted on	29/05/13
Industry Sub-sector	Cast and diamond-set jewellery	Last reviewed on	30/07/13
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Definitions

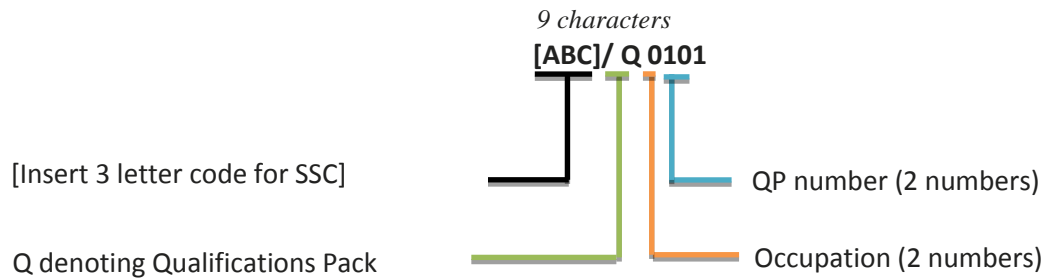
Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further 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 Standards (OS)	NOS are occupational standards which apply uniquely in the Indian 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 Understanding	Knowledge and understanding are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish

	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

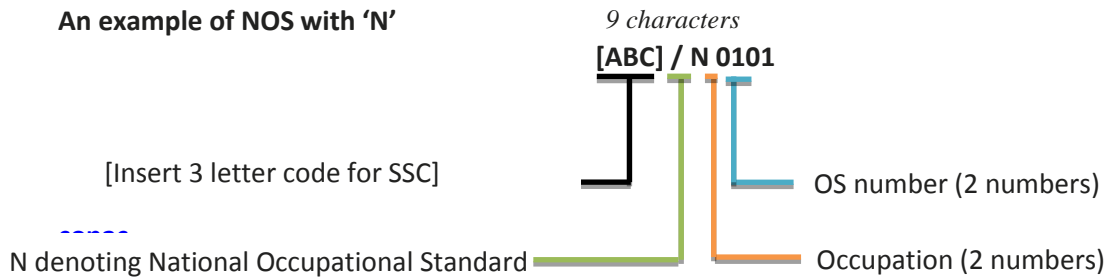
Nomenclature for QP and NOS

Qualifications Pack



Occupational Standard

An example of NOS with 'N'



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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 QP or NOS	N
Next two numbers	Occupation code	01
Next two numbers	OS number	01

CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role Casting Machine Operator

Qualification Pack G&J/Q2801

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/N2801 Operate the casting machine	PC1. accurately compute alloy required as per wax tree weight	80	3	1	2
	PC2. proportionately use re-cycled and new gold in the alloy making		6	1	5
	PC3. ensure minimal accidents while handling molten metal		4	1	3
	PC4. mix of all the required materials such as PoP, boric acid and DM water for investment process as per industry standards		12	2	10

	PC5. prepare bubble-free investment of flask	7	2	5
	PC6. constantly monitor furnace temperature for complete burnout cycle duration so that an incomplete process does not lead to casting defects	13	3	10
	PC7. set machine parameters as per machine specifications prescribed for a particular alloy	12	2	10
	PC8. Pour metal at the right temperature in manual pouring mode	5	2	3
	PC9. properly plan casting cycles for the optimum utilisation of machines	4	1	3
	PC10. minimise rework and precious metal loss in the casting process	2	0	2
	PC11. timely deliver casted jewellery pieces to next process	2	0	2
	PC12. Produce number of casted jewellery pieces or precious metal tree as per target deliverable and quality approved by the supervisor	2	0	2
	PC13. produce defect-free casted jewellery pieces	2	0	2
	PC14. ensure minimum damage to the set stones during casting process	2	0	2
	PC15. produce Quality Control okayed cast jewellery piece	2	0	2

	PC16. deliver casted jewellery pieces on time by reporting problems faced or anticipated well in advance		2	0	2
		Total	80	15	65
2. G&J/N9901 Respect and maintain IPR	PC1. be able to spot plagiarism and report	7	2	1	1
	PC2. be aware of patents and IPR		4	1	3
	PC3. not be involved in IPR violations		1		1
		Total	7	2	5
3. G&J/N9902 Coordinate with others	PC1. understand the work output requirements	7	1	0	1
	PC2. comply with company policy and rule		2	1	1
	PC3. deliver quality work on time as required by reporting any anticipated reasons for delays		1		1
	PC4. put team over individual goals		0		0
	PC5. be able to resolve conflicts		1		1
	PC6. learn how to multi-task relevant activities		2		1
		Total	7	2	5
4. G&J/N9905 Maintain occupational health and safety	PC1. spot and report potential hazards on time	6	1	0	1
	PC2. follow company policy and rules regarding use of hazardous materials		2	0	2
	PC3. attend and actively participate in the health and safety campaigns organised by the company		1	0	1
	PC4. use or wear safety gear as per the rules of the company		2	1	1
		Total	6	1	5