



QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR GEMS & JEWELLERY INDUSTRY

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

Contact Us: GJSCI, Mumbai





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Introduction

Qualifications Pack- Final Quality Inspector and Grader

SECTOR: GEMS & JEWELLERY SUB-SECTOR: Gemstone Processing OCCUPATION: Grading and Dispatching REFERENCE ID: G&J/Q7001 ALIGNED TO: NCO-2004/ NIL Gemstone Final Quality Inspector and Grader: The Final Quality Inspector and Grader is responsible for final quality assessment of every gemstone faceted and/or polished and then grading it.

Brief Job Description: The individual uses visual grading tools such as magnifying glass or loupe to separate the defective faceted and/or polished gemstones from the good ones and assigns grades based on the 4Cs: colour, cut, clarity and carats.

Personal Attributes: The job requires the individual to have: attention to details; good eyesight; and ability to communicate effectively.





Job Details

Qualifications Pack Code	G&J/Q7001		
Job Role	Final Quality Inspector and Grader		
Credits(NSQF)	TBD	Version number	1.0
Sector	Gems & Jewellery	Drafted on	08/08/13
Sub-sector	Gemstone Processing	Last reviewed on	13/08/14
Occupation	Gemstone Grading and Dispatching	Next review date	12/08/15

Job Role	Final Quality Inspector and Grader	
Role Description	Managing the process of checking final quality of faceted and polished gemstones and assigning a grade to them	
NSQF level Minimum Educational Qualifications Maximum Educational Qualifications	4 Minimum: 10 th Standard passed	
Training	Not applicable	
Experience	3 years minimum in gemstone processing	
Applicable National Occupational Standards (NOS)	 Compulsory: 1. <u>G&J/N7002 Check final quality of gemstones polished and grade</u> 2. <u>G&J/N9920 Maintain IPR at work</u> 3. <u>G&J/N9922 Interact with colleagues</u> 4. <u>G&J/N9924 Maintain safety at work</u> Optional: 	
	Not applicable	
Performance Criteria	As described in the relevant OS units	

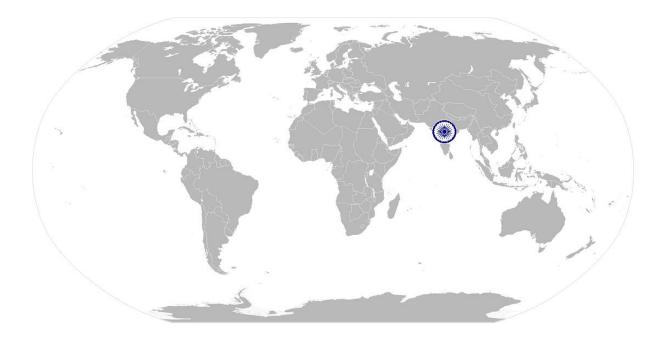






Check final quality of gemstones polished and grade

National Occupational Standard



Overview

This unit is about checking the quality of gemstones after they have been faceted and/or polished to separate the defective stones and grade the non-defective ones.







Check final quality of gemstones polished and grade

Unit Code	G&J/N7002	
Unit Title (Task)	Check final quality and grade the gemstones	
Description	This OS unit is about checking the final quality of gemstones faceted and/or polished and grading them according to the 4Cs: colour, cut, clarity, carat	
Scope	 This unit/task covers the following: Receive the gemstones for quality check and grading Conduct quality check and give feedback Grade the quality passed gemstones Return quality-checked gemstones to Operations/Inventory Manager or Supervisor Interact with Operations Manager, doper, pre-shaper, facet maker, polisher and other departments 	

Performance Criteria(PC) w.r.t. the Scope		
Element	Performance Criteria	
Element Quality checking and grading	 To be competent, the user/ individual on the job must be able to: PC1. match the stone type, weight and number as mentioned on the bag PC2. assess whether quality check is required for each stone or a sample from the lot PC3. check facets for: symmetry mismatch, number of facets required in the plan, any windows left, and rough surfaces PC4. check girdle polishing for: even girdle line; smooth finish; distinct lines; and no broken edges 	
	 PC5. check polish for: type of polish required as per plan, e.g., matt or smooth; finish; scratches or broken edges; colour and brilliance to be achieved PC6. assess whether defects can be removed without stone loss as prescribed PC7. send for rework to respective department's supervisor for rework on defects PC8. describe the defect to the respective department head or worker PC9. educate about a recurring defect to the respective department's supervisor PC10. visually check the gemstones individually PC11. use vernier callipers and magnifying glass or loupe for checking PC12. use liquid solution for cleaning finger prints 	
	 PC13. wear eye glasses for safety while using laser PC14. measure hardness of the gemstone in Moh's scale. PC15. use an identification system for gemstones to be graded such as bar coding, design number or job sheet details PC16. segregate the gemstones by colour, cut, clarity and carat and grade PC17. check colour: hue, tone and saturation levels PC18. check carat: weight of gemstone in grams 	





G&J/N7002	Check final quality of gemstones polished and grade
	PC19. check cut: proportions, symmetry and polish; interaction with light; brightness, fire and scintillation
	PC20. check clarity: for inclusions based on company's policy or international grading systems such as that developed by GIA- eye clean, slightly included, moderately
	included, heavily or moderately included
	PC21. check for any treatment given to the gemstone and its effect
	PC22. accurately assess the quality as per company's standards and design parameters
	PC23. maintain global standards of quality
	PC24. understand the globally acceptable grading system for gemstones
	PC25. accurately decide on the 4Cs of the sample checked
	PC26. consistently assign grades that are acceptable to customers and the company PC27. alert about any recurrent quality problems
Achieving productivity and quality	To be competent, the user/ individual on the job must be able to: PC28. match the stone type, weight and number of stones received as per job sheet PC29. count and bag all quality checked stones of the lot and document on job sheet PC30. return bagged QC okayed and damaged stones to Operations Manager PC31. deliver the number and carats of stones per day against target given PC32. complete work as per customer's satisfaction
Handling problems and interacting with co-workers	 To be competent, the user/ individual on the job must be able to: PC33. receive instructions and job sheet from Operations Manager about deliverables and work flow PC34. discuss with co-workers in other relevant department any practical difficulties PC35. give instructions on final quality check and grading PC36. resolve problems related to recurrent problems
Knowledge and Unders	standing (K)
A. Organizational Context	 The user/individual on the job needs to know and understand: KA1. company's policies on: quality, acceptable limits of stone loss, incentives, delivery standards, safety and hazards, integrity and IPR, and personnel management KA2. work flow involved in gemstone processing of company KA3. management of worker, quality and productivity KA4. conflict resolution and problem solving KA5. performance appraisal procedure and standards KA6. reporting structure
B. Technical	The user/individual on the job needs to know and understand:
Knowledge	KB1. different types of stones and species they belong to, e.g., ruby and sapphire belong to corundum species
	KB2. mines and sources of gemstones, e.g., Madagascar for blue sapphire or Burma for red rubies
	KB3. beauty, rarity and durability of the gemstone
	,,,





G&J/N7002	Check final quality of gemstones polished and grade
	 KB5. appropriate lighting to be used for assessing colour of gemstone, e.g., ordinary household light for red ruby or florescent light for blue sapphire or sunlight for emerald KB6. usual sizes that some natural gemstones are found in KB7. similar looking gemstones, e.g., ruby, red spinel, red opal and red tourmaline KB8. glass imitations of gemstones, e.g., vivid green or bluish green for emeralds KB9. most prized colours and hues of gemstones KB10. types of inclusions and fissures, their location KB11. authenticity of the gemstone based on inclusions KB12. different types of treatments for inclusions and fissures such as heat-and-pressure, oil impregnation, fracture filling, laser drilling, resin enhancement KB13. durability of enhancement treatment given KB14. refractive index of gemstones KB15. grading standards of gemstones of weight, measurements, shape, cut, transparency, colour, treatment given, hue, tone and saturation KB17. market value of stone to understand the rationale for different acceptable levels of stone loss KB18. softness/ hardness of gemstones KB19. different types of shapes and facets possible for different gemstones and the number of steps in processing KB20. processes of doping, shaping, faceting and polishing of gemstones KB21. accounting of stones and documentation KB22. market trends and customer requirements
Skills (S) [Optional]	
	Deading and writing skills
A. Core Skills/ Generic Skills	Reading and writing skillsThe user/ individual on the job needs to know and understand how to:SA1. read about different types of gemstones and their propertiesSA2. read height, weight, dimensions of the stones as given on job sheetsSA3. document work flow, quality standards and outcomes as per company policySA4. read company rules and compliance documents required to complete the workSA5. prepare grading records and certificatesValuation and geometry skillsThe user/individual on the job needs to know and understand how to:SA6. read symmetry requirements of stones as per job sheetSA7. value the gemstone based on grading parameters
B. Professional Skills	Reading the design or plan for the stone
	The user/individual on the job needs to know and understand how to: SB1. read the plan or design on paper SB2. spot difficulties with respect to practicality of plan SB3. check quality of shaped stone as per plan and allocate appropriate type of rework





G&J/N7002	&J/N7002 Check final quality of gemstones polished and grade		
	Reducing stone loss		
	The user/individual on the job needs to know and understand how:		
	SB8. to report stone losses via documentation as per company policy		
	SB9. to report any incidents of high stone loss		
	SB10. to follow company's policies on stone fragments		
	Communication skills		
	The user/individual on the job needs to know and understand how to communicate effectively in order to:		
	SB11. give appropriate feedback to different levels of workers		
	SB12. educate about quality		
	SB13. train on correct steps to follow to achieve required grading		
	Reflective thinking		
	The user/individual on the job needs to know and understand how to:		
	SB14. improve work processes for greater productivity		
	SB15. improve grading of output		
	Critical thinking		
	The user/individual on the job needs to know and understand how to:		
	SB16. spot process disruption and reasons for delay		







Check final quality of gemstones polished and grade

NOS Version Control

NOS Code	G&J/N7002		
Credits(NSQF)	TBD	Version number	1.0
Industry	Gems & Jewellery	Drafted on	08/08/13
Industry Sub-sector	Gemstone Processing	Last reviewed on	13/08/14
		Next review date	12/08/15

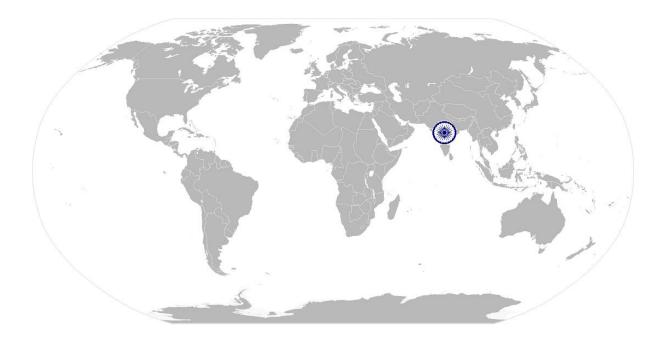






Maintain IPR at work

National Occupational Standard



Overview

This unit is about respecting intellectual property rights of the company's products and designs.





Maintain IPR at work



G&J/N9920

Unit Code	G&J/N9920	
Unit Title (Task)	Maintain IPR at work	
Description	This OS unit is about protecting company's Intellectual Property Rights	
Scope	This unit/task covers the following:	
	 Protect company's Intellectual Property Rights (IPR) 	
Performance Criteria(P	C) w.r.t. the Scope	
Element	Performance Criteria	
Maintaining IPR	 To be competent, the user/individual on the job must: PC1. prevent leak of new designs/ plans to competitors by reporting on time PC2. be aware of any of company's product, process or design patents PC3. report IPR violations observed in the market, to supervisor or company heads PC4. be aware of patents and IPR PC5. not be involved in IPR violations 	
Knowledge and Unders	standing (K)	
A. Organizational Context	 The user/individual on the job needs to know and understand: KA1. company's policies on: integrity, IPR and personnel management KA2. work flow involved in gemstone processing of company KA3. importance of the individual's role in the organisation KA4. reporting structure 	
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 KB3. market trends	
Skills (S) [Optional]		
C. 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	
D. Professional Skills	Decision making	
	The user/individual on the job needs to know and understand:	
	SB1. when and how to report potential sources of violations	
Reflective thinking		
	The user/individual on the job needs to know and understand how to: SB2. 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: SB3. spot signs of violations and alert authorities in time	







Maintain IPR at work

NOS Version Control

NOS Code	G&J/N9920		
Credits(NSQF)	TBD	Version number	1.0
Industry	Gems & Jewellery	Drafted on	26/08/13
Industry Sub-sector	Gemstone Processing	Last reviewed on	13/08/14
		Next review date	12/08/15

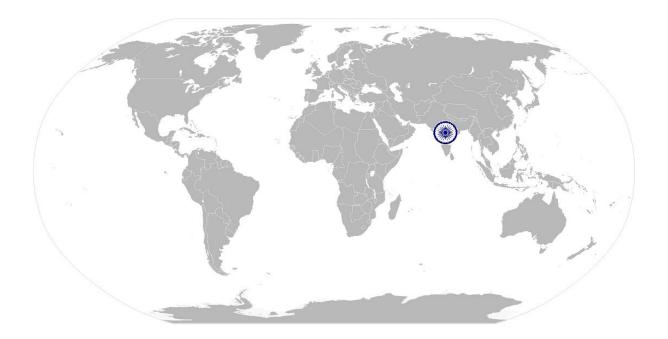






Interact with colleagues

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 required deliverables on schedule.





Interact with colleagues



G&J/N9922

Unit Code	G&J/N9922	
Unit Title (Task)	Coordinate 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	This unit/task covers the following:	
	 Interact with superior Interact with colleagues within and outside the department 	
Performance Criteria(P	C) w.r.t. the Scope	
Element	Performance Criteria	
Interaction with superior	 To be competent, the user/ individual on the job must be able to: PC1. receive work instructions and raw materials from reporting superior PC2. communicate to reporting superior about process-flow improvements, product defects received from previous process, repairs and maintenance of tools and machinery as required PC3. communicate any potential hazards or expected process disruptions PC4. handover completed work to superior PC5. understand the work output requirements PC6. comply with company policy and rule PC7. 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: PC8. work as a team with colleagues and share work as per their or own work load and skills PC9. work with colleagues of other departments PC10. communicate an discuss work flow related difficulties in order to find solutions with mutual agreement PC11. receive feedback and rework in order to complete work on time PC12. put team over individual goals PC13. resolve conflicts and multi-task 	
Knowledge and Unders	standing (K)	
A. Organizational Context	 The user/individual on the job needs to know and understand: KA1. company's policies on personnel management KA2. work flow involved in gemstone processing of company KA3. importance of the individual's role in the workflow KA4. reporting structure 	





G	&J/N9922	Interact with colleagues
Β.	Technical	The user/individual on the job needs to know and understand how to:
Knowledge		KB1. communicate effectively
		KB2. build team coordination
Ski	ills (S) [Optional]	
Α.	Core Skills/	Teamwork and multitasking
	Generic Skills	The individual on the job needs to know and understand:
		SA1. importance of sharing work load as required
		SA2. significance of delivering product to next work process on time
в.	Professional Skills	Decision making
		The individual on the job needs to know and understand:
		SB1. 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 working with others
Critical thinking		
		The individual on the job needs know and understand how to:
		SB4. spot process disruptions and delays due to unavailability of workers







Interact with colleagues

NOS	Version	Control

NOS Code	G&J/N9922		
Credits(NSQF)	TBD	Version number	1.0
Industry	Gems &Jewellery	Drafted on	08/08/13
Industry Sub-sector	Gemstone Processing	Last reviewed on	13/08/14
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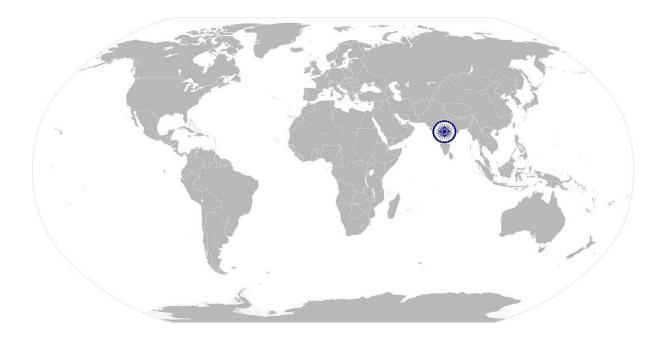






Maintain safety at work

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 a clean working environment.







Maintain	safety	at	work
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Unit Code	G&J/N9924
Unit Title	Maintain safety at work
(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 a clean work environment
Scope	This unit/task covers the following:
	 Understand potential sources of accidents
	 Use safety gear to avoid accidents
	 Keep the work environment clean and organised
	Communicate to reporting supervisor
Performance Criteria(P	
Element Communicating	Performance Criteria To be competent, the user/individual on the job must:
potential accident points Using safety gear	 PC1. to avoid accidents related to use of potentially dangerous chemicals, sharp tools, hazards from machines such as laser sawyer, heating lamps, rotating scaife and lap PC2. spot and report potential hazards on time PC3. follow company policy and rules regarding use of hazardous materials PC4. deliver quality work on time as required by reporting any anticipated reasons for delays PC5. Follow process flow improvements that can reduce anticipated or repetitive hazards PC6. report about mishandling of tools, machines or hazardous materials PC7. inform about electrical problems that could result in accident To be competent, the user/individual on the job must: PC8. wear safety gear such as goggles, mask, gloves, ear plugs
	PC9. use or wear safety gear as per the rules of the company
Cleanliness and hygiene	To be competent, the user/individual on the job must: PC10. keep the work station, machine, tools clean PC11. keep all the tools in an organised manner PC12. not litter or spit on work premises PC13. clean the work station PC14. organise tools and equipment in use





G&J/N9924

G&J/1(3724	Maintain Safety at WOIK
Knowledge and Unders	standing (K)
A. Organizational Context	 The user/individual on the job needs to know and understand: KA1. company's policies on: stone collection, safety and hazards and personnel management KA2. work flow involved in gemstone processing of company KA3. importance of the individual's role in the workflow KA4. reporting structure
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. how different chemicals react and the danger involved KB2. how to use machines and tools without suffering bodily harm
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Communication skillsThe 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 find them quickly SA3. keep the work environment 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. avoid an accident by wearing appropriate safety gear
	Reflective thinking
	The individual on the job needs to know and understand how 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 dangers
	SB6. organise tools so as the work process is smooth
	Decision making
	The individual on the job needs to know and understand how to: SB7. report potential sources of danger
	SB8. follow prescribed procedure in the event of an accident







Maintain safety at work

NOS Version Control

NOS Code	G&J/N9924		
Credits(NSQF)	TBD	Version number	1.0
Industry	Gems & Jewellery	Drafted on	26/08/13
Industry Sub-sector	Gemstone Processing	Last reviewed on	13/08/14
		Next review date	12/08/15





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 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' $% \left({{{\rm{D}}_{{\rm{D}}}}_{{\rm{D}}}} \right)$
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	Core skills or generic skills are a group of skills that are the key to learning



Qualifications Pack For Final Quality Inspector and Grader



Acronyms

Skills	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
GIA	International Gemmological Institute
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

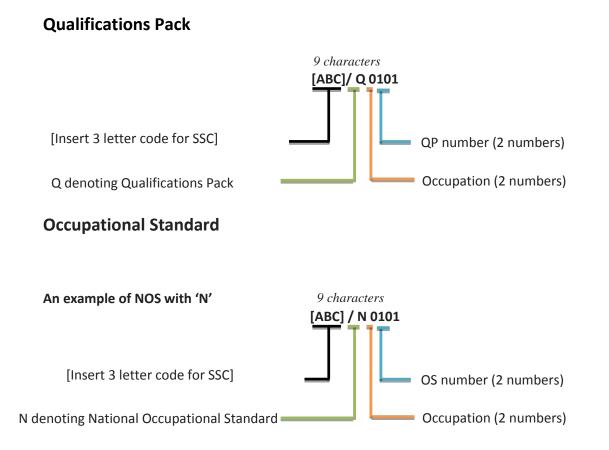


Qualifications Pack For Final Quality Inspector and Grader



Annexure

Nomenclature for QP and NOS



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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 N OS	N
Next two numbers	Occupation code	01
Next two numbers	OS number	01





	CRITERIA	FOR ASSESSMENT OF TRAINEES		
Job Role	Final QC Inspector & Grader			
Qualification Pack	Final QC Inspector & Grader			
Sector Skill Council		GEMS & JEWELLERY		
	To pass the Assessment, a candio	date needs to score 50% in Theory and 70% in Practical		
		Assessment Strategy	Marks	Allocation
NOS	Elements	Performance Criteria	Theory	Practical
		PC1. accurately assess the quality as per company's standards and design parameters	2	10
		PC2. maintain global standards of quality	1	10
		PC3. understand the globally acceptable grading system for gemstones	1	8
1. G&J/N7002	Quality checking and grading	PC4. accurately decide on the 4Cs of the sample checked	1	6
Check final quality of gemstones polished and grade		PC5. consistently assign grades that are acceptable to customers and the company	1	6
polisileu allu graue		PC6. alert about any recurrent quality problems	1	6
	Duo du ativitu	PC7. deliver the number and carats of stones per day against target given	1	6
Producti	Productivity	PC8. complete work as per customer's satisfaction	1	6
Handling problems		PC9. resolve problems related to recurrent problems	1	4
2. G&J/N8001 Reducing stone loss and		PC10. be aware of patents and IPR	1	4
Maintain IPR at	maintaining IPR	PC11. not be involved in IPR violations	1	4
work		Sub Total	12	70
	Interaction with superior	PC1. understand the work output requirements	1	2
3. G&J/N8003 Interact with others		PC2. comply with company policy and rule	1	1
		PC3. deliver quality work on time as required by reporting any anticipated reasons for delays	1	2
others	Interactions with colleagues,	PC4. put team over individual goals	1	1
	customers and/or vendors	PC5. resolve conflicts and multi-task	1	1
		Sub Total	5	7





CRITERIA FOR ASSESSMENT OF TRAINEES				
4. G&J/N8005 Maintain safe work environment	Communicating potential accident points	PC1. spot and report potential hazards on time	1	0
		PC2. follow company policy and rules regarding use of hazardous materials	0	0
		PC3. deliver quality work on time as required by reporting any anticipated reasons for delays	1	1
	Using safety gear	PC4. use or wear safety gear as per the rules of the company	1	1
	Cleanliness and hygiene	PC5. clean the work station	0	1
		PC6. organise tools and equipment in use	0	0
		Sub Total	3	3
		Total	20	80



