

Qualification Pack



Metal Setter (Basic)

QP Code: G&J/Q3103

Version: 5.0

NSQF Level: 3

GJSCI || Gem Jewellery Skill Council of India, 4th Floor, Business Facilitation Centre, SEEPZ SEZ,
Andheri (E)
Mumbai 400096 || email:standards.qa@gjsoci.org

Qualification Pack

Contents

G&J/Q3103: Metal Setter (Basic)	3
<i>Brief Job Description</i>	3
Applicable National Occupational Standards (NOS)	3
<i>Compulsory NOS</i>	3
<i>Qualification Pack (QP) Parameters</i>	3
G&J/N3101: Set diamond and gemstones in precious metal jewellery piece	5
G&J/N9901: Respect and maintain IPR	9
G&J/N9905: Maintain occupational health and safety	12
DGT/VSQ/N0101: Employability Skills (30 Hours)	16
Assessment Guidelines and Weightage	21
<i>Assessment Guidelines</i>	21
<i>Assessment Weightage</i>	22
Acronyms	23
Glossary	24

Qualification Pack

G&J/Q3103: Metal Setter (Basic)

Brief Job Description

The individual works with numerous hand and machine tools to set diamond and gemstones as per design, and is responsible for delivering: levelled, damage-free and secured setting of stones while maintaining its brilliance

Personal Attributes

The job requires the individual to have: attention to details; good eyesight; steady hands and ability to work in a process driven team for long hours in sitting position. The individual is expected to have integrity in dealing with precious metal, diamonds and gemstones

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [G&J/N3101: Set diamond and gemstones in precious metal jewellery piece](#)
2. [G&J/N9901: Respect and maintain IPR](#)
3. [G&J/N9905: Maintain occupational health and safety](#)
4. [DGT/VSQ/N0101: Employability Skills \(30 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Gem & Jewellery
Sub-Sector	Cast and diamonds-set jewellery, Handmade Gold and Gems-set Jewellery, Silver Smithing
Occupation	Metal Setting
Country	India
NSQF Level	3
Credits	15
Aligned to NCO/ISCO/ISIC Code	NCO-2004/7313.30

Qualification Pack

Minimum Educational Qualification & Experience	9th Class with NA of experience OR 8th grade pass with 1 Year of experience relevant experience OR Previous relevant Qualification of NSQF Level with 1 Year of experience relevant experience
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	17/11/2025
NSQC Approval Date	17/11/2022
Version	5.0
Reference code on NQR	2022/GJ/GJSCI/06711
NQR Version	3

Qualification Pack

G&J/N3101: Set diamond and gemstones in precious metal jewellery piece

Description

This unit is about securely setting diamonds and gemstones in the precious metal jewellery frames in a way that enhances brilliance of the stones

Scope

The scope covers the following :

- This unit/task covers the following:
- Metal Setting
- Productivity
- Quality of output

Elements and Performance Criteria

Metal Setting

To be competent, the user/individual on the job must be able to:

- PC1.** place or fix stone as per design requirement
- PC2.** secure stone in a jewellery piece without any defect or damage, with brilliance intact
- PC3.** file edges ensuring smooth surface and utility of wearing

Productivity

To be competent, the user/individual on the job must be able to:

- PC4.** maintain precious metal and stone loss within prescribed limit for the design
- PC5.** complete the number of settings as per the target

Quality of output

To be competent, the user/individual on the job must be able to:

- PC6.** deliver on time, the metal-set jewellery for final polish and plating or for the further processing as per work flow
- PC7.** accurately level the stones
- PC8.** set the stones firmly
- PC9.** achieve setting finish as per design

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** companys policies on: acceptable limits of precious metal loss, incentives, quality and delivery standards, safety and hazards, integrity and IPR, and personnel management
- KU2.** work flow involved in jewellery manufacturing process of the company
- KU3.** importance of the individuals role in the workflow
- KU4.** reporting structure

Qualification Pack

- KU5.** shape, cut, clarity, carat, weight and physical characteristics of the gemstone or diamond to be set
- KU6.** different types of setting styles such as prong, bezel, bead, channel and pre-cut pave
- KU7.** quality standards required as per design or company policy
- KU8.** matching stones with the design
- KU9.** layout of the frame and collet
- KU10.** uses of different types of tools for different end results
- KU11.** sharpening and repair of tools for the job
- KU12.** potential work hazards, particularly, when using hand and machine tools

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** read and interpret job sheets
- GS2.** read company policies and compliance documents required to complete the work such as security check, timings, and human behaviour
- GS3.** measure diamond and gemstones size by gauge tool or vernier calipers
- GS4.** count the number of the diamond and gemstones
- GS5.** share work load as required
- GS6.** interpret the design instructions given by co-worker and supervisor
- GS7.** share knowledge with the co-workers
- GS8.** read design or actual jewellery sample piece and correlate with job sheet in order to achieve secure setting as well as maintain brilliance of stones
- GS9.** work with metals including how to cut, give shape for preparing a seat for setting diamond and/or gemstones
- GS10.** use following key tools for metal setting: hammers tweezers screw drivers pliers scribes broaches and pin punches center punches hand-held burnishes and scrapers high-speed steel burrs carbide burrs and drills twist drills burr storage, lubricants and drill gauges mill grain toolsprong lifters work holders hand pieces flex shaft gauges magnifiers pushers
- GS11.** maintain, repair and customise tools
- GS12.** work in a safe environment, i.e., without injuries
- GS13.** use correct posture while performing the job of the setting
- GS14.** place the tools on the work bench for effective work management
- GS15.** ensure proper lighting is focussed for performance of the job
- GS16.** improve productivity
- GS17.** increase efficiency based on past working experience

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Metal Setting</i>	8	30	-	-
PC1. place or fix stone as per design requirement	3	10	-	-
PC2. secure stone in a jewellery piece without any defect or damage, with brilliance intact	3	10	-	-
PC3. file edges ensuring smooth surface and utility of wearing	2	10	-	-
<i>Productivity</i>	2	15	-	-
PC4. maintain precious metal and stone loss within prescribed limit for the design	2	10	-	-
PC5. complete the number of settings as per the target	-	5	-	-
<i>Quality of output</i>	-	20	-	-
PC6. deliver on time, the metal-set jewellery for final polish and plating or for the further processing as per work flow	-	5	-	-
PC7. accurately level the stones	-	5	-	-
PC8. set the stones firmly	-	5	-	-
PC9. achieve setting finish as per design	-	5	-	-
NOS Total	10	65	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	G&J/N3101
NOS Name	Set diamond and gemstones in precious metal jewellery piece
Sector	Gem & Jewellery
Sub-Sector	Cast and diamonds-set jewellery
Occupation	Metal Setting
NSQF Level	3
Credits	12
Version	2.0
Last Reviewed Date	NA
Next Review Date	17/11/2025
NSQF Clearance Date	17/11/2022

Qualification Pack

G&J/N9901: Respect and maintain IPR

Description

This OS unit is about protecting companys IPR and avoiding infringement to IPR of other companies

Scope

The scope covers the following :

- This unit/task covers the following:
- Respecting and maintaining IPR

Elements and Performance Criteria

Respecting and maintaining IPR

To be competent, the user/individual on the job must be able to:

- 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 (KU)

The individual on the job needs to know and understand:

- KU1.** companys policies on ipr and plagiarism
- KU2.** reporting structure
- KU3.** companys unique product range
- KU4.** patents and ipr laws
- KU5.** how ipr protection is important for competitiveness of a company

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** effectively communicate any observed ipr violations or order leaks
- GS2.** report potential sources of violations
- GS3.** learn from past mistakes and report ipr violations on time
- GS4.** learn from past mistakes and report ipr violations on time

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Respecting and maintaining IPR</i>	4	5	-	-
PC1. be able to spot plagiarism and report	2	1	-	-
PC2. be aware of patents and ipr	1	3	-	-
PC3. not be involved in ipr violations	1	1	-	-
NOS Total	4	5	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	G&J/N9901
NOS Name	Respect and maintain IPR
Sector	Gem & Jewellery
Sub-Sector	Jewellery Retail, Cast and diamonds-set jewellery, Diamond Processing, Handmade Gold and Gems-set Jewellery, Gemstone Processing, Silver Smithing, Imitation Jewellery
Occupation	Generic
NSQF Level	4
Credits	1
Version	6.0
Last Reviewed Date	NA
Next Review Date	17/11/2025
NSQC Clearance Date	17/11/2022

Qualification Pack

G&J/N9905: 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

The scope covers the following :

- This unit/task covers the following:
- Communicating potential accident points
- Using safety gear

Elements and 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 (KU)

The individual on the job needs to know and understand:

KU1. companys policies on handling: harmful chemicals and sharp tools, safety and hazards of machines, fire safety and, disposal of harmful chemicals and materials

KU2. work flow involved in companys jewellery manufacturing process

KU3. importance of the individuals role in the workflow

KU4. reporting structure

KU5. how different chemicals react and what could be the danger from them

KU6. how to use machines and tools without causing bodily harm

KU7. fire safety education

KU8. first aid execution

KU9. disposal of hazardous chemicals, tools and materials by following prescribed environmental norms or as per company policy

KU10. companys policies on: safety and hazardsand personnel management

KU11. reporting structure

KU12. how to use machines and tools without suffering bodily harm

Qualification Pack

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** prepare notes, task lists and schedule with co-workers
- GS2.** prepare progress reports
- GS3.** read notes and put notes on design
- GS4.** read company rules and compliance documents required to complete the work
- GS5.** discuss task lists, schedules and work-loads with co-workers
- GS6.** question co-workers appropriately in order to understand the nature of problem and to make a diagnosis
- GS7.** keep seniors informed about the progress of work
- GS8.** make decisions pertaining to the concerned area of work to implement them on personal or organizational level
- GS9.** plan and organize the work to meet health, safety and security requirements
- GS10.** use customer centric approach that provides a positive customer experience before and after the sale in order to drive repeat business, customer loyalty and profits
- GS11.** think through the problem, evaluate the possible solution (s) and suggest an optimum/ best possible solution (s)
- GS12.** identify immediate or temporary solutions to resolve delays
- GS13.** analyze activities by breaking them down into single and manageable components
- GS14.** anticipate process disruption and reasons for delay
- GS15.** effectively communicate the danger
- GS16.** keep all the tools in an organised manner so as to avoid accidents
- GS17.** keep the work environment safe and clean
- GS18.** report potential sources of danger
- GS19.** follow prescribed procedure in the event of an accident
- GS20.** wear appropriate safety gear to avoid an accident
- GS21.** learn from past mistakes regarding use of hazardous machines or chemicals
- GS22.** spot danger
- GS23.** report potential sources of danger
- GS24.** follow prescribed procedure in the event of an accident
- GS25.** wear appropriate safety gear to avoid an accident

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Communicating potential accident points</i>	2	4	-	-
PC1. spot and report potential hazards on time	1	1	-	-
PC2. follow company policy and rules regarding use of hazardous materials	-	2	-	-
PC3. attend and actively participate in the health and safety campaigns organised by the company	1	1	-	-
<i>Using safety gear</i>	1	1	-	-
PC4. use or wear safety gear as per the rules of the company	1	1	-	-
NOS Total	3	5	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	G&J/N9905
NOS Name	Maintain occupational health and safety
Sector	Gem & Jewellery
Sub-Sector	Imitation Jewellery, Cast and diamonds-set jewellery, Handmade Gold and Gems-set Jewellery, Gemstone Processing, Silver Smithing, Jewellery Retail, Diamond Processing
Occupation	Generic
NSQF Level	3
Credits	1
Version	3.0
Last Reviewed Date	27/05/2021
Next Review Date	27/05/2024
NSQC Clearance Date	27/05/2021

Qualification Pack

DGT/VSQ/N0101: Employability Skills (30 Hours)

Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

Scope

The scope covers the following :

- Introduction to Employability Skills
- Constitutional values - Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

Elements and Performance Criteria

Introduction to Employability Skills

To be competent, the user/individual on the job must be able to:

PC1. understand the significance of employability skills in meeting the job requirements

Constitutional values - Citizenship

To be competent, the user/individual on the job must be able to:

PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices

Becoming a Professional in the 21st Century

To be competent, the user/individual on the job must be able to:

PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.

Basic English Skills

To be competent, the user/individual on the job must be able to:

PC4. speak with others using some basic English phrases or sentences

Communication Skills

To be competent, the user/individual on the job must be able to:

PC5. follow good manners while communicating with others

PC6. work with others in a team

Qualification Pack

Diversity & Inclusion

To be competent, the user/individual on the job must be able to:

PC7. communicate and behave appropriately with all genders and PwD

PC8. report any issues related to sexual harassment

Financial and Legal Literacy

To be competent, the user/individual on the job must be able to:

PC9. use various financial products and services safely and securely

PC10. calculate income, expenses, savings etc.

PC11. approach the concerned authorities for any exploitation as per legal rights and laws

Essential Digital Skills

To be competent, the user/individual on the job must be able to:

PC12. operate digital devices and use its features and applications securely and safely

PC13. use internet and social media platforms securely and safely

Entrepreneurship

To be competent, the user/individual on the job must be able to:

PC14. identify and assess opportunities for potential business

PC15. identify sources for arranging money and associated financial and legal challenges

Customer Service

To be competent, the user/individual on the job must be able to:

PC16. identify different types of customers

PC17. identify customer needs and address them appropriately

PC18. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

To be competent, the user/individual on the job must be able to:

PC19. create a basic biodata

PC20. search for suitable jobs and apply

PC21. identify and register apprenticeship opportunities as per requirement

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills

KU2. various constitutional and personal values

KU3. different environmentally sustainable practices and their importance

KU4. Twenty first (21st) century skills and their importance

KU5. how to use basic spoken English language

KU6. Do and dont of effective communication

KU7. inclusivity and its importance

KU8. different types of disabilities and appropriate communication and behaviour towards PwD

KU9. different types of financial products and services

Qualification Pack

- KU10.** how to compute income and expenses
- KU11.** importance of maintaining safety and security in financial transactions
- KU12.** different legal rights and laws
- KU13.** how to operate digital devices and applications safely and securely
- KU14.** ways to identify business opportunities
- KU15.** types of customers and their needs
- KU16.** how to apply for a job and prepare for an interview
- KU17.** apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** communicate effectively using appropriate language
- GS2.** behave politely and appropriately with all
- GS3.** perform basic calculations
- GS4.** solve problems effectively
- GS5.** be careful and attentive at work
- GS6.** use time effectively
- GS7.** maintain hygiene and sanitisation to avoid infection

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
PC1. understand the significance of employability skills in meeting the job requirements	-	-	-	-
<i>Constitutional values - Citizenship</i>	1	1	-	-
PC2. identify constitutional values, civic rights, duties, personal values and ethics and environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	1	3	-	-
PC3. explain 21st Century Skills such as Self-Awareness, Behavior Skills, Positive attitude, self-motivation, problem-solving, creative thinking, time management, social and cultural awareness, emotional awareness, continuous learning mindset etc.	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC4. speak with others using some basic English phrases or sentences	-	-	-	-
<i>Communication Skills</i>	1	1	-	-
PC5. follow good manners while communicating with others	-	-	-	-
PC6. work with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	1	-	-
PC7. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC8. report any issues related to sexual harassment	-	-	-	-
<i>Financial and Legal Literacy</i>	3	4	-	-
PC9. use various financial products and services safely and securely	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. calculate income, expenses, savings etc.	-	-	-	-
PC11. approach the concerned authorities for any exploitation as per legal rights and laws	-	-	-	-
<i>Essential Digital Skills</i>	4	6	-	-
PC12. operate digital devices and use its features and applications securely and safely	-	-	-	-
PC13. use internet and social media platforms securely and safely	-	-	-	-
<i>Entrepreneurship</i>	3	5	-	-
PC14. identify and assess opportunities for potential business	-	-	-	-
PC15. identify sources for arranging money and associated financial and legal challenges	-	-	-	-
<i>Customer Service</i>	2	2	-	-
PC16. identify different types of customers	-	-	-	-
PC17. identify customer needs and address them appropriately	-	-	-	-
PC18. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	1	3	-	-
PC19. create a basic biodata	-	-	-	-
PC20. search for suitable jobs and apply	-	-	-	-
PC21. identify and register apprenticeship opportunities as per requirement	-	-	-	-
NOS Total	20	30	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0101
NOS Name	Employability Skills (30 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	2
Credits	1
Version	1.0
Last Reviewed Date	29/03/2021
Next Review Date	29/03/2026
NSQC Clearance Date	29/03/2021

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Element/ 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 Element/ PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
6. To pass the Qualification Pack assessment, every trainee should score the Recommended Pass % aggregate for the QP.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Qualification Pack

Minimum Aggregate Passing % at QP Level : 50

(Please note: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
G&J/N3101.Set diamond and gemstones in precious metal jewellery piece	10	65	-	-	75	70
G&J/N9901.Respect and maintain IPR	4	5	-	-	9	10
G&J/N9905.Maintain occupational health and safety	3	5	-	-	8	10
DGT/VSQ/N0101.Employability Skills (30 Hours)	20	30	0	0	50	10
Total	37	105	0	0	142	100

Qualification Pack

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Qualification Pack

Glossary

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.
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 (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	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.

Qualification Pack

Knowledge and Understanding (KU)	Knowledge and Understanding (KU) 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 (GS)	Core skills or Generic Skills (GS) 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.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.