

Qualification Pack



Diamond Planner

Options: Marking Rough Diamonds

QP Code: G&J/Q4207

Version: 3.0

NSQF Level: 3

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G&J/Q4207: Diamond Planner

Brief Job Description

The individual utilizes specialized diamond designing software and advanced planning and marking machines to analyze each rough diamond. The individuals goal is to determine the optimal way to cut and mark the stone to achieve the highest possible value. The individual balances factors such as shape, clarity, colour, and carat weight while aligning with the companys policy whether it is to maximize value, preserve colour, or retain weight. The individuals precision and planning directly influence the profitability and quality of the final polished diamond.

Personal Attributes

The role necessitates a detail oriented individual with analytical and technical skills for diamond processing, proficient in specialized software, cross-functional team collaboration, and standard operating procedures, adaptable to production demands, responsible attitude, understanding of diamond characteristics, and well-informed planning decisions.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [G&J/N4202: Plan the final cut of the diamond](#)
2. [G&J/N9902: Maintain health and safety at workplace](#)
3. [G&J/N9952: Implement Circular Economy and Sustainable Practices in Gem and Jewellery Industry](#)
4. [DGT/VSQ/N0102: Employability Skills \(60 Hours\)](#)

Options(Not mandatory):

Option : Marking Rough Diamonds

This OS covers the process of inspecting, analyzing, and marking rough diamonds using both traditional and modern digital tools.

1. [G&J/N4207: Mark the Rough diamonds](#)

Qualification Pack (QP) Parameters

Sector	Gem & Jewellery
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Sub-Sector	Diamond Processing
Occupation	Diamond Planning, Diamond Planning
Country	India
NSQF Level	3
Credits	10
Aligned to NCO/ISCO/ISIC Code	NCO-2015/8189.0401
Minimum Educational Qualification & Experience	10th grade pass with NA of experience OR 9th grade pass with 1.5 years of experience OR 8th grade pass with 3 Years of experience OR Previous relevant Qualification of NSQF Level 2.5 with 1.5 years of experience OR Previous relevant Qualification of NSQF Level 2 with 3 Years of experience
Minimum Level of Education for Training in School	Not Applicable
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	07/10/2028
NSQC Approval Date	07/10/2025
Version	3.0
Reference code on NQR	QG-03-GJ-045152025-V2-GJSCI
NQR Version	2.0

Remarks:

NA

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G&J/N4202: Plan the final cut of the diamond

Description

The OS unit employs technologies like 3D scanning, cloud-based tracking, defect detection, blockchain tracking, eco-friendly processing methods, and automation.

Scope

The scope covers the following :

- Advanced Rough Diamond Analysis
- Precision Marking & Mapping
- Smart Planning & Optimization
- Sustainable & Defect-Free Processing
- Enhanced Productivity & Multitasking

Elements and Performance Criteria

● *Advanced Rough Diamond Analysis*

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

- PC1.** utilize AI-powered imaging tools or high-resolution optical microscopes to analyse rough diamonds for precise assessment of colour, purity, and structure.
- PC2.** implement real-time 3D scanning to create an initial digital model, ensuring accuracy in windowing and mapping.
- PC3.** Record and categorize rough diamonds using cloud-based data storage for easy tracking and retrieval.

Precision Marking & Mapping

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

- PC4.** use laser marking to enhance the accuracy of marking before sending the roughs for windowing
- PC5.** integrate automated laser mapping to reduce errors and enhance efficiency in imaging and planning.
- PC6.** implement AI-driven defect detection or digital X-ray/UV defect detection systems to identify inclusions and flaws before proceeding with cutting plans.

Smart Planning & Optimization

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

- PC7.** leverage machine learning algorithms to predict the optimal cutting strategy based on historical data.
- PC8.** use a secure tracking system to maintain the integrity and authenticity of the rough

Sustainable & Defect-Free Processing

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

- PC9.** adopt eco-friendly cleaning agents and non-toxic adhesives to reduce environmental impact in diamond processing.

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PC10. ensure zero-damage planning by using advanced non-contact laser technology for marking and processing.

Enhanced Productivity & Multitasking

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

PC11. utilize AI-assisted workflow automation or programmable scheduling systems to manage multiple rough diamonds simultaneously with minimal errors.

PC12. optimize work allocation by integrating predictive analytics to prioritize high-value roughs.

PC13. implement remote monitoring and control for planning operations to enable flexibility and efficiency in workflow.

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. AI-powered imaging techniques for diamond assessment

KU2. Three dimensional scanning principles for digital model creation

KU3. cloud-based data management for diamond categorization

KU4. augmented Reality applications in precision marking

KU5. automated laser mapping for enhanced accuracy

KU6. machine learning models for optimized cutting strategies

KU7. blockchain implementation in diamond tracking

KU8. eco-friendly processing materials and sustainability methods

KU9. AI-driven workflow automation for multitasking efficiency

KU10. remote monitoring systems for operational flexibility

Generic Skills (GS)

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

GS1. read and write to follow work instructions and maintain records.

GS2. communicate effectively with team members and supervisors.

GS3. stay updated on gemstone processing techniques and industry trends.

GS4. manage time efficiently to meet production deadlines.

GS5. identify and solve problems related to gemstone defects and processing.

GS6. apply critical thinking to improve processing methods and quality.

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
● <i>Advanced Rough Diamond Analysis</i>	7	14	-	-
PC1. utilize AI-powered imaging tools or high-resolution optical microscopes to analyse rough diamonds for precise assessment of colour, purity, and structure.	3	5	-	-
PC2. implement real-time 3D scanning to create an initial digital model, ensuring accuracy in windowing and mapping.	2	5	-	-
PC3. Record and categorize rough diamonds using cloud-based data storage for easy tracking and retrieval.	2	4	-	-
<i>Precision Marking & Mapping</i>	8	18	-	-
PC4. use laser marking to enhance the accuracy of marking before sending the roughs for windowing	4	5	-	-
PC5. integrate automated laser mapping to reduce errors and enhance efficiency in imaging and planning.	2	5	-	-
PC6. implement AI-driven defect detection or digital X-ray/UV defect detection systems to identify inclusions and flaws before proceeding with cutting plans.	2	8	-	-
<i>Smart Planning & Optimization</i>	6	15	-	-
PC7. leverage machine learning algorithms to predict the optimal cutting strategy based on historical data.	2	8	-	-
PC8. use a secure tracking system to maintain the integrity and authenticity of the rough	4	7	-	-
<i>Sustainable & Defect-Free Processing</i>	4	15	-	-
PC9. adopt eco-friendly cleaning agents and non-toxic adhesives to reduce environmental impact in diamond processing.	2	8	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. ensure zero-damage planning by using advanced non-contact laser technology for marking and processing.	2	7	-	-
<i>Enhanced Productivity & Multitasking</i>	5	8	-	-
PC11. utilize AI-assisted workflow automation or programmable scheduling systems to manage multiple rough diamonds simultaneously with minimal errors.	1	3	-	-
PC12. optimize work allocation by integrating predictive analytics to prioritize high-value roughs.	1	3	-	-
PC13. implement remote monitoring and control for planning operations to enable flexibility and efficiency in workflow.	3	2	-	-
NOS Total	30	70	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	G&J/N4202
NOS Name	Plan the final cut of the diamond
Sector	Gem & Jewellery
Sub-Sector	Diamond Processing
Occupation	Rough assorting
NSQF Level	3
Credits	7
Version	4.0
Last Reviewed Date	07/10/2025
Next Review Date	07/10/2028
NSQC Clearance Date	07/10/2025

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G&J/N9902: Maintain health and safety at workplace

Description

This OS unit is about being aware of, communicating and taking steps towards minimizing potential hazards and maintaining health and safety at workplace.

Scope

The scope covers the following :

- Health, hygiene and safety in work area
- Fire safety
- Emergencies, rescue and first aid procedures
- Waste management

Elements and Performance Criteria

Health, hygiene and safety in work area

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

- PC1.** follow regular cleaning and disinfection practices at work place using appropriate techniques and materials
- PC2.** follow hand hygiene practices at work place using appropriate techniques and materials
- PC3.** follow alternative ways of conducting meeting and organizing event to ensure safety
- PC4.** follow contactless attendance system
- PC5.** report regarding the contagious illness of self or people in close contact
- PC6.** use appropriate protective clothing/ equipment for specific tasks
- PC7.** identify hazardous activities and the possible causes of risks or accidents in the workplace
- PC8.** follow safe working practices while dealing with hazards to ensure safety of self and others
- PC9.** maintain appropriate working postures to minimize occupational health related issues

Fire safety

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

- PC10.** use appropriate type of fire extinguisher
- PC11.** apply appropriate rescue techniques during fire hazard
- PC12.** ensure good housekeeping in order to prevent fire hazards

Emergencies, rescue and first aid procedures

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

- PC13.** provide appropriate first aid procedure to victims wherever required eg.in case of bleeding, burns, choking, electric shock etc.
- PC14.** respond promptly and appropriately to an accident or medical emergency.
- PC15.** follow emergency procedures such as raising alarm, safe evacuation etc.

Waste management

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

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- PC16.** identify recyclable, non-recyclable and hazardous waste
- PC17.** collect the segregated waste - at designated space
- PC18.** dispose non-recyclable waste appropriately and deposit recyclable and reusable material at identified location

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** company's policies on safety, hazards and personnel management
- KU2.** signages that refer to health and safety in work place
- KU3.** the reporting structure
- KU4.** health and safety hazards commonly present in the work place and related precautions
- KU5.** preventative and remedial actions to be taken in case of exposure to toxic material
- KU6.** methods of accident prevention
- KU7.** how different chemicals react and the related hazards
- KU8.** how to use machines and tools without causing any accident
- KU9.** importance of using protective clothing/ equipment while working
- KU10.** precautionary activities to prevent the fire accident
- KU11.** various causes of fire
- KU12.** techniques of using different fire extinguishers
- KU13.** different materials used for extinguishing fire
- KU14.** rescue techniques applied during a fire hazard
- KU15.** various types of safety signs and their meaning
- KU16.** appropriate basic first aid treatment relevant to different condition e.g. bleeding, minor burns, eye injuries etc.,
- KU17.** casualty lifting in case of an accident
- KU18.** usage of different colors of dustbins.
- KU19.** categorization of waste into dry, wet, recyclable, non-recyclable and items of single-use plastics.
- KU20.** waste management and methods of waste disposal.

Generic Skills (GS)

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

- GS1.** read and comprehend labels, charts, signages
- GS2.** read and comprehend manuals of operations
- GS3.** communicate effectively, the risk of not following safety measures
- GS4.** respond to emergencies/accidents, by taking an appropriate and timely decision
- GS5.** organize work schedule, work area, tools, equipment and material to minimize health and safety risk

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- GS6.** ensure appropriate action in case of any emergencies, accidents or fire at the work location
- GS7.** analyze untoward incidents from the past and follow correct procedures in handling machines, tools or hazardous chemicals
- GS8.** critically analyze the processes carried out by self and colleagues in the department to spot potential hazards and safety issues
- GS9.** record data on waste disposal at workplace.
- GS10.** complete statutory documents relevant to safety and hygiene.

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Health, hygiene and safety in work area</i>	9	16	-	-
PC1. follow regular cleaning and disinfection practices at work place using appropriate techniques and materials	1	2	-	-
PC2. follow hand hygiene practices at work place using appropriate techniques and materials	1	2	-	-
PC3. follow alternative ways of conducting meeting and organizing event to ensure safety	1	2	-	-
PC4. follow contactless attendance system	1	1	-	-
PC5. report regarding the contagious illness of self or people in close contact	1	2	-	-
PC6. use appropriate protective clothing/ equipment for specific tasks	1	2	-	-
PC7. identify hazardous activities and the possible causes of risks or accidents in the workplace	1	2	-	-
PC8. follow safe working practices while dealing with hazards to ensure safety of self and others	1	1	-	-
PC9. maintain appropriate working postures to minimize occupational health related issues	1	2	-	-
<i>Fire safety</i>	3	6	-	-
PC10. use appropriate type of fire extinguisher	1	3	-	-
PC11. apply appropriate rescue techniques during fire hazard	1	2	-	-
PC12. ensure good housekeeping in order to prevent fire hazards	1	1	-	-
<i>Emergencies, rescue and first aid procedures</i>	3	4	-	-
PC13. provide appropriate first aid procedure to victims wherever required eg.in case of bleeding, burns, choking, electric shock etc.	1	1	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. respond promptly and appropriately to an accident or medical emergency.	1	2	-	-
PC15. follow emergency procedures such as raising alarm, safe evacuation etc.	1	1	-	-
<i>Waste management</i>	3	6	-	-
PC16. identify recyclable, non-recyclable and hazardous waste	1	2	-	-
PC17. collect the segregated waste - at designated space	1	2	-	-
PC18. dispose non-recyclable waste appropriately and deposit recyclable and reusable material at identified location	1	2	-	-
NOS Total	18	32	-	-

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National Occupational Standards (NOS) Parameters

NOS Code	G&J/N9902
NOS Name	Maintain health and safety at workplace
Sector	Gem & Jewellery
Sub-Sector	Handmade Gold and Gems-set Jewellery, Gemstone Processing, Silver Smithing, Jewellery Retail, Cast and diamonds-set jewellery, Imitation Jewellery, Diamond Processing
Occupation	Generic
NSQF Level	3
Credits	TBD
Version	3.0
Last Reviewed Date	31/08/2023
Next Review Date	31/08/2026
NSQC Clearance Date	31/08/2023

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G&J/N9952: Implement Circular Economy and Sustainable Practices in Gem and Jewellery Industry

Description

This NOS is about implementing eco-friendly practices in jewellery production, including recycling, upcycling, and energy-efficient methods to optimize resource usage, maintain quality, and minimize environmental impact for sustainable and long-term economic benefits.

Scope

The scope covers the following :

- Integrate sustainable practices in jewellery production
- Perform recycling and upcycling of jewellery mate
- Implement material conservation practices in daily operations
- Implement energy and material conservation practices in daily operations

Elements and Performance Criteria

Integrate sustainable practices in jewellery production

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

- PC1.** identify and select recyclable and reusable materials for jewellery production
- PC2.** incorporate modular designs that allow easy disassembly and reassembly
- PC3.** avoid using mixed materials that hinder recyclability
- PC4.** follow eco-friendly manufacturing guidelines while designing new jewellery
- PC5.** work closely with suppliers to source conflict-free and ethical materials
- PC6.** minimize wastage in the design process by optimizing raw material usage
- PC7.** measure the quantity of materials for designs before production to avoid wastage
- PC8.** recover lost gold and reintegrate into production
- PC9.** establish systems to reuse process-rejected gold and customer-returned jewellery
- PC10.** melt and reuse wax patterns in the lost wax casting process
- PC11.** treat and neutralize process chemicals before disposal
- PC12.** reuse waste water from the manufacturing process for non-production activities
- PC13.** adopt industry best practices for hazardous waste disposal
- PC14.** implement waste segregation practices for better disposal and recycling
- PC15.** conduct regular audits to ensure efficient resource utilization

Perform recycling and upcycling of jewellery materials

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

- PC16.** establish take-back programs for old and unwanted jewellery
- PC17.** implement closed-loop recycling systems for metals and gemstones
- PC18.** ensure proper sorting of recyclable and non-recyclable materials
- PC19.** partner with certified recyclers for ethical material disposal

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PC20. reduce dependency on new materials by increasing the use of recycled materials

PC21. document and track all recycled and upcycled materials as per organisational procedure

Implement material conservation practices in daily operations

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

PC22. implement water conservation measures by preventing leaks, optimizing water usage, and reusing water for secondary purposes

PC23. promote paper conservation in office work by reducing unnecessary printing, using digital alternatives, and reusing single-sided printed paper

PC24. use fuel-efficient methods in jewellery manufacturing by maintaining machines, and minimize energy consumption during metal casting and finishing processes

PC25. ensure proper handling and storage of chemicals used in jewellery making, such as acids and polishing agents, to prevent spills and excessive usage

Implement energy and material conservation practices in daily operations

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

PC26. ensure optimal utilization of natural sunlight by keeping window curtains open

PC27. identify and adopt energy-efficient equipment for jewellery production

PC28. maintaining adequate indoor illumination levels of 200 to 250 lux for office work

PC29. use LED lighting and other energy-saving fixtures in manufacturing units

PC30. use solar energy wherever feasible to reduce dependency on non-renewable sources

PC31. implement automatic timers and sensors to reduce unnecessary energy consumption

PC32. optimize ventilation systems to reduce power usage

PC33. use five-star rated electrical appliances to conserve electricity and reduce carbon emissions

PC34. maintain appropriate thermostat settings for air conditioners to reduce energy consumption

PC35. ensure that the AC room is air-sealed and free from unnecessary heat-absorbing materials

PC36. assist in conducting energy audits to identify and address inefficiencies

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. properties, types, and classifications of gemstones, including their hardness, color variations, and inclusions.

KU2. principles and methods of digital tracking, RFID-based inventory management, and their role in gemstone verification.

KU3. The application of AI-assisted design tools for analysing pre-shaping requirements to optimize yield.

KU4. operational setup and maintenance of automated grinding mills and scaife with vibration sensors for precision cutting.

KU5. functionalities and benefits of CNC-based or robotic pre-shaping tools for minimizing material loss and ensuring consistency.

KU6. role of real-time AI monitoring in calibrating gemstone size, dimensions, and weight to maintain precision.

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- KU7.** selection criteria for laps and abrasive powders based on gemstone type, using machine-learning recommendations.
- KU8.** factors influencing cutting parameters to maximize QC-approved gemstones while reducing defects.
- KU9.** importance of eco-friendly cooling techniques to prevent overheating and preserve gemstone colour.
- KU10.** methodologies for tracking and measuring daily gemstone cutting output in carats and number of stones using automated systems.
- KU11.** impact of maintaining AI-predicted tolerance limits on reducing gemstone loss and enhancing efficiency.
- KU12.** significance of predictive maintenance and anomaly detection in proactively identifying and resolving production bottlenecks.
- KU13.** health and safety hazards associated with gemstone cutting, including dust control and ergonomic workstation design.
- KU14.** use of AR-based training modules for continuous learning and adapting to new gemstone cutting technologies
- KU15.** principles of precision cutting and polishing to achieve optimal faceting and brilliance in gemstones.
- KU16.** latest advancements in AI, robotics, and machine learning for process automation in the gemstone industry.
- KU17.** regulatory standards, sustainability guidelines, and environmental best practices in gemstone cutting and processing.
- KU18.** ethical considerations in gemstone sourcing, handling, and processing to align with industry compliance and responsible sourcing practices

Generic Skills (GS)

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

- GS1.** read and write to follow work instructions and maintain records.
- GS2.** communicate effectively with team members and supervisors.
- GS3.** stay updated on gemstone processing techniques and industry trends.
- GS4.** manage time efficiently to meet production deadlines.
- GS5.** manage time efficiently to meet production deadlines.
- GS6.** apply critical thinking to improve processing methods and quality.

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Integrate sustainable practices in jewellery production</i>	10	20	-	3
PC1. identify and select recyclable and reusable materials for jewellery production	1	1	-	-
PC2. incorporate modular designs that allow easy disassembly and reassembly	1	2	-	-
PC3. avoid using mixed materials that hinder recyclability	1	1	-	-
PC4. follow eco-friendly manufacturing guidelines while designing new jewellery	1	2	-	-
PC5. work closely with suppliers to source conflict-free and ethical materials	-	1	-	-
PC6. minimize wastage in the design process by optimizing raw material usage	-	1	-	1
PC7. measure the quantity of materials for designs before production to avoid wastage	1	1	-	-
PC8. recover lost gold and reintegrate into production	1	2	-	1
PC9. establish systems to reuse process-rejected gold and customer-returned jewellery	-	1	-	1
PC10. melt and reuse wax patterns in the lost wax casting process	-	1	-	-
PC11. treat and neutralize process chemicals before disposal	1	2	-	-
PC12. reuse waste water from the manufacturing process for non-production activities	1	1	-	1
PC13. adopt industry best practices for hazardous waste disposal	1	2	-	-
PC14. implement waste segregation practices for better disposal and recycling	-	1	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC15. conduct regular audits to ensure efficient resource utilization	1	1	-	-
<i>Perform recycling and upcycling of jewellery materials</i>	10	10	-	3
PC16. establish take-back programs for old and unwanted jewellery	1	3	-	1
PC17. implement closed-loop recycling systems for metals and gemstones	2	3	-	-
PC18. ensure proper sorting of recyclable and non-recyclable materials	1	1	-	-
PC19. partner with certified recyclers for ethical material disposal	3	1	-	1
PC20. reduce dependency on new materials by increasing the use of recycled materials	1	1	-	-
PC21. document and track all recycled and upcycled materials as per organisational procedure	2	1	-	1
<i>Implement material conservation practices in daily operations</i>	10	10	-	1
PC22. implement water conservation measures by preventing leaks, optimizing water usage, and reusing water for secondary purposes	2	2	-	1
PC23. promote paper conservation in office work by reducing unnecessary printing, using digital alternatives, and reusing single-sided printed paper	3	3	-	-
PC24. use fuel-efficient methods in jewellery manufacturing by maintaining machines, and minimize energy consumption during metal casting and finishing processes	3	3	-	-
PC25. ensure proper handling and storage of chemicals used in jewellery making, such as acids and polishing agents, to prevent spills and excessive usage	2	2	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Implement energy and material conservation practices in daily operations</i>	10	10	-	2
PC26. ensure optimal utilization of natural sunlight by keeping window curtains open	1	2	-	-
PC27. identify and adopt energy-efficient equipment for jewellery production	1	1	-	1
PC28. maintaining adequate indoor illumination levels of 200 to 250 lux for office work	1	2	-	-
PC29. use LED lighting and other energy-saving fixtures in manufacturing units	1	1	-	-
PC30. use solar energy wherever feasible to reduce dependency on non-renewable sources	1	1	-	-
PC31. implement automatic timers and sensors to reduce unnecessary energy consumption	1	-	-	-
PC32. optimize ventilation systems to reduce power usage	1	-	-	-
PC33. use five-star rated electrical appliances to conserve electricity and reduce carbon emissions	1	1	-	-
PC34. maintain appropriate thermostat settings for air conditioners to reduce energy consumption	1	1	-	-
PC35. ensure that the AC room is air-sealed and free from unnecessary heat-absorbing materials	1	1	-	-
PC36. assist in conducting energy audits to identify and address inefficiencies	-	-	-	1
NOS Total	40	50	-	10

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National Occupational Standards (NOS) Parameters

NOS Code	G&J/N9952
NOS Name	Implement Circular Economy and Sustainable Practices in Gem and Jewellery Industry
Sector	Gem & Jewellery
Sub-Sector	
Occupation	Generic, Generic
NSQF Level	3
Credits	1
Version	1.0
Last Reviewed Date	07/10/2025
Next Review Date	07/10/2028
NSQC Clearance Date	07/10/2025

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DGT/VSQ/N0102: Employability Skills (60 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
- Career Development & Goal Setting
- 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.** identify employability skills required for jobs in various industries
- PC2.** identify and explore learning and employability portals

Constitutional values – Citizenship

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

- PC3.** recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.
- PC4.** follow environmentally sustainable practices

Becoming a Professional in the 21st Century

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

- PC5.** recognize the significance of 21st Century Skills for employment
- PC6.** practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life

Basic English Skills

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

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- PC7.** use basic English for everyday conversation in different contexts, in person and over the telephone
- PC8.** read and understand routine information, notes, instructions, mails, letters etc. written in English
- PC9.** write short messages, notes, letters, e-mails etc. in English

Career Development & Goal Setting

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

- PC10.** understand the difference between job and career
- PC11.** prepare a career development plan with short- and long-term goals, based on aptitude

Communication Skills

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

- PC12.** follow verbal and non-verbal communication etiquette and active listening techniques in various settings
- PC13.** work collaboratively with others in a team

Diversity & Inclusion

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

- PC14.** communicate and behave appropriately with all genders and PwD
- PC15.** escalate any issues related to sexual harassment at workplace according to POSH Act

Financial and Legal Literacy

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

- PC16.** select financial institutions, products and services as per requirement
- PC17.** carry out offline and online financial transactions, safely and securely
- PC18.** identify common components of salary and compute income, expenses, taxes, investments etc
- PC19.** identify relevant rights and laws and use legal aids to fight against legal exploitation

Essential Digital Skills

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

- PC20.** operate digital devices and carry out basic internet operations securely and safely
- PC21.** use e- mail and social media platforms and virtual collaboration tools to work effectively
- PC22.** use basic features of word processor, spreadsheets, and presentations

Entrepreneurship

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

- PC23.** identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research
- PC24.** develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion
- PC25.** identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity

Customer Service

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

- PC26.** identify different types of customers
- PC27.** identify and respond to customer requests and needs in a professional manner.

Qualification Pack

PC28. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

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

PC29. create a professional Curriculum vitae (Résumé)

PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively

PC31. apply to identified job openings using offline /online methods as per requirement

PC32. answer questions politely, with clarity and confidence, during recruitment and selection

PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills and different learning and employability related portals

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 English language for effective verbal (face to face and telephonic) and written communication in formal and informal set up

KU6. importance of career development and setting long- and short-term goals

KU7. about effective communication

KU8. POSH Act

KU9. Gender sensitivity and inclusivity

KU10. different types of financial institutes, products, and services

KU11. how to compute income and expenditure

KU12. importance of maintaining safety and security in offline and online financial transactions

KU13. different legal rights and laws

KU14. different types of digital devices and the procedure to operate them safely and securely

KU15. how to create and operate an e- mail account and use applications such as word processors, spreadsheets etc.

KU16. how to identify business opportunities

KU17. types and needs of customers

KU18. how to apply for a job and prepare for an interview

KU19. apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

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

GS1. read and write different types of documents/instructions/correspondence

GS2. communicate effectively using appropriate language in formal and informal settings

Qualification Pack

- GS3.** behave politely and appropriately with all
- GS4.** how to work in a virtual mode
- GS5.** perform calculations efficiently
- GS6.** solve problems effectively
- GS7.** pay attention to details
- GS8.** manage time efficiently
- GS9.** maintain hygiene and sanitization 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. identify employability skills required for jobs in various industries	-	-	-	-
PC2. identify and explore learning and employability portals	-	-	-	-
<i>Constitutional values – Citizenship</i>	1	1	-	-
PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
PC4. follow environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	2	4	-	-
PC5. recognize the significance of 21st Century Skills for employment	-	-	-	-
PC6. practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC7. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
PC9. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
<i>Career Development & Goal Setting</i>	1	2	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. understand the difference between job and career	-	-	-	-
PC11. prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-
<i>Communication Skills</i>	2	2	-	-
PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
PC13. work collaboratively with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	2	-	-
PC14. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC15. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
<i>Financial and Legal Literacy</i>	2	3	-	-
PC16. select financial institutions, products and services as per requirement	-	-	-	-
PC17. carry out offline and online financial transactions, safely and securely	-	-	-	-
PC18. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
<i>Essential Digital Skills</i>	3	4	-	-
PC20. operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
PC22. use basic features of word processor, spreadsheets, and presentations	-	-	-	-

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Entrepreneurship</i>	2	3	-	-
PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
<i>Customer Service</i>	1	2	-	-
PC26. identify different types of customers	-	-	-	-
PC27. identify and respond to customer requests and needs in a professional manner.	-	-	-	-
PC28. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	2	3	-	-
PC29. create a professional Curriculum vitae (Résumé)	-	-	-	-
PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC31. apply to identified job openings using offline /online methods as per requirement	-	-	-	-
PC32. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
NOS Total	20	30	-	-

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0102
NOS Name	Employability Skills (60 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	4
Credits	2
Version	1.0
Last Reviewed Date	12/03/2026
Next Review Date	12/03/2029
NSQC Clearance Date	12/03/2026

Qualification Pack

G&J/N4207: Mark the Rough diamonds

Description

This OS covers the process of inspecting, analyzing, and marking rough diamonds using both traditional and modern digital tools.

Scope

The scope covers the following :

- The scope covers the following:
- Inspect and mark each rough diamond
- Perform quality check
- Achieve productivity

Elements and Performance Criteria

Inspect and mark each rough diamond

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

- PC1.** examine each rough diamond using eye glass, 10x loupe, microscope, or digital rough-scanning tools (e.g., Sarine, Irys, DiaExpert) to understand inclusions, grain, tension, and shape.
- PC2.** identify inclusions such as cracks, feathers, cavities, naturals, graining, black spots, or twinning marks.
- PC3.** use traditional marking tools (pencil, ink, scribe) or laser/digital marking systems to make precise markings as per its classification, like windowing, cleavable, sawable, makeable, or for identification.
- PC4.** ensure that markings (manual or digital) do not damage the stone and are aligned with laser cutting or planning requirements.

Perform quality check

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

- PC5.** check that markings comply with company standards, digital planning reports, and sustainability guidelines.
- PC6.** detect faulty markings, misalignment with internal inclusions, or tension lines using scopes or scanners, and correct them without damaging the stone.
- PC7.** ensure no weight loss or damaging scratches occur due to improper marking.
- PC8.** maintain zero loss of roughs, follow tracking protocols (RFID/barcode), and ensure stones are returned securely.

Achieve productivity

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

- PC9.** achieve productivity targets in terms of carats, number of pieces, or digital marking cycles, as per company KPIs.
- PC10.** deliver rough diamonds to the next process along with digital records, scans, and marking reports, within the required timeline.

Qualification Pack

PC11. ensure workflow continuity using digital dashboards, if available, and proper documentation.

PC12. inform supervisors immediately about delays or process disruptions

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** different types of diamond roughs and its properties.
- KU2.** four Cs of diamond colour, cut, clarity, and carat
- KU3.** stress tension of the diamond
- KU4.** latest company policies related to weight loss limits, incentives, sustainability norms, traceability, and safety guidelines.
- KU5.** workflow of diamond manufacturing.
- KU6.** importance of the marker in determining value, yield, and processing efficiency.
- KU7.** windowing process using laser or traditional methods.
- KU8.** rough issue-return procedures including barcode/RFID tracking.
- KU9.** global customer preferences, trending shapes (pear, oval, emerald), and market dynamics.
- KU10.** modern rough cutting methods: laser sawing, kerfing, cleaving, and controlled micro-cutting.
- KU11.** advanced inclusion identification: clouds, feathers, twinning lines, naturals, fractures.
- KU12.** repair and re-marking procedures to resolve faulty or misaligned marks.

Generic Skills (GS)

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

- GS1.** read and write to follow work instructions and maintain records.
- GS2.** communicate effectively with team members and supervisors.
- GS3.** stay updated on gemstone processing techniques and industry trends.
- GS4.** manage time efficiently to meet production deadlines.
- GS5.** identify and solve problems related to gemstone defects and processing.
- GS6.** apply critical thinking to improve processing methods and quality.

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Inspect and mark each rough diamond</i>	10	10	-	3
PC1. examine each rough diamond using eye glass, 10x loupe, microscope, or digital rough-scanning tools (e.g., Sarine, Irys, DiaExpert) to understand inclusions, grain, tension, and shape.	3	2	-	1
PC2. identify inclusions such as cracks, feathers, cavities, naturals, graining, black spots, or twinning marks.	3	2	-	-
PC3. use traditional marking tools (pencil, ink, scribe) or laser/digital marking systems to make precise markings as per its classification, like windowing, cleavable, sawable, makeable, or for identification.	3	3	-	1
PC4. ensure that markings (manual or digital) do not damage the stone and are aligned with laser cutting or planning requirements.	1	3	-	1
<i>Perform quality check</i>	15	20	-	3
PC5. check that markings comply with company standards, digital planning reports, and sustainability guidelines.	4	5	-	1
PC6. detect faulty markings, misalignment with internal inclusions, or tension lines using scopes or scanners, and correct them without damaging the stone.	4	5	-	1
PC7. ensure no weight loss or damaging scratches occur due to improper marking.	4	5	-	-
PC8. maintain zero loss of roughs, follow tracking protocols (RFID/barcode), and ensure stones are returned securely.	3	5	-	1
<i>Achieve productivity</i>	15	20	-	4
PC9. achieve productivity targets in terms of carats, number of pieces, or digital marking cycles, as per company KPIs.	4	5	-	1

Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. deliver rough diamonds to the next process along with digital records, scans, and marking reports, within the required timeline.	4	5	-	1
PC11. ensure workflow continuity using digital dashboards, if available, and proper documentation.	4	5	-	1
PC12. inform supervisors immediately about delays or process disruptions	3	5	-	1
NOS Total	40	50	-	10

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	G&J/N4207
NOS Name	Mark the Rough diamonds
Sector	Gem & Jewellery
Sub-Sector	Diamond Processing
Occupation	Diamond Planning, Diamond Planning
NSQF Level	3
Credits	2
Version	1.0
Last Reviewed Date	07/10/2025
Next Review Date	07/10/2028
NSQC Clearance Date	07/10/2025

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/N4202.Plan the final cut of the diamond	30	70	-	-	100	70
G&J/N9902.Maintain health and safety at workplace	18	32	-	-	50	10
G&J/N9952.Implement Circular Economy and Sustainable Practices in Gem and Jewellery Industry	40	50	-	10	100	10
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	-	-	50	10
Total	108	182	-	10	300	100

Optional: 1 Marking Rough Diamonds

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
G&J/N4207.Mark the Rough diamonds	40	50	-	10	100	30
Total	40	50	-	10	100	30

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.