



ASSESSMENT MATERIAL

EVIDENCE GUIDE

Qualification code:

0214G&J3

Level: 02

Credit: 80

Version: 1

GEMSTONE FACETING

CONTENTS

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ASSESSMENT AND ASSESSMENT PANEL DETAILS

Competent ☐

Not Yet Competent ☐

Assessment ☐

Re-Assessment ☐

Candidate's Instructor name:

Candidate's Instructor signature:

Private Sector Expert's name:

Private Sector Expert's signature:

Assessor's Name:

Assessor Code:

Assessor's Signature: Date

DD	MM							YYYY	

CANDIDATE DETAILS

Candidate Name:

Father Name

Institute Name and District

CNIC #

OR

Registration Number:

Gender

Male ☐

Female ☐

Candidate Consent

I agree to the time and date of the assessment and am aware of the requirements of the assessment. I fully understand my rights of appeal.

Candidate Signature:

ASSESSMENT RESULTS SUMMARY FORM

You can use this coversheet as an *Assessment Results Summary Form*. Simply post a photocopy of this completed coversheet to **NAVTTTC**

NAVTTTC OFFICE ONLY

1. DATE FORM

RECEIVED:

DD	MM					YYYY	

2. DATE ENTERED INTO DATABASE:

DD	MM					YYYY	

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ASSESSMENT SUMMARY AND RECORD

ACTIVITY	METHOD				DESIRED OUTCOMES	RESULT	
NATURE OF ACTIVITY	WRITTEN	ORAL	PORTFOLIO	OBSERVATION	DESIRED OUTCOMES FOR SUCCESSFUL ASSESSMENT OF: GEMSTONE FACETING	COMPETENT	NOT YET COMPETENT
Practical final project		✓	✓	✓	Complete supplied project brief related to application of Gemstone Faceting: • Perform basic gemstone identification • Perform gemstone trimming and free hand shaping • Prepare gemstone for faceting • Perform gemstone faceting • Perform gemstone polishing		
Knowledge assessment	✓	✓			• Answer all questions the Assessment Panel will have following oral presentation of completed project brief		
Other requirements					• N/A		

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CANDIDATE ASSESSMENT

Candidate Name..... Father Name

ALL WORK ASSESSED FOR THESE COMPETENCY STANDARDS MUST BE YOUR OWN WORK.

GUIDANCE TO CANDIDATE

To meet this standard you are required to complete the following tasks within **five hours** timeframe:

- Perform basic gemstone identification
- Perform gemstone trimming and free hand shaping
- Prepare gemstone for faceting
- Perform gemstone faceting
- Perform gemstone polishing

Important Note: The following general performance criteria will be followed and performed in all the tasks (where applicable) by the candidate in order to meet this standard.

- Follow health and safety procedure as per the requirements of given task
- Prepare work station as per the requirements of task
- Select tools/ equipment as per the requirements of task
- Report to supervisor in case of any contingency after taking necessary actions
- Complete the work by following sequence of operations
- Perform task(s) within standard timeframe

ACTIVITIES	CANDIDATE RESPONSE
1.Tasks I. Complete practical task in performing basic gemstone identification	During Practical assessment under observation by an assessor, I will correctly carry out the following task. • Properties of gemstone ✓ Calculate specific gravity with weighing balance ✓ Identify gemstone on the basis of Refractive Index ✓ Identify the cleavage, Breakage, Fracture and feathers and hardness, If any on the basis of physical properties ✓ Describe the color zoning, critical angle and orientation • Identify the crystal structure ✓ Identify the crystal structure on the basis crystal sample on geometrical shapes (cubic, tetragonal, hexagonal, trigonal, orthorhombic, monoclinic and triclinic)
II. Complete practical task in performing gemstone trimming and free hand shaping	• Perform trimming ✓ Make necessary arrangements in workstation ✓ Mark stone for trimming ✓ Remove unwanted portion through plier ✓ Perform Trimming faceting of stone by using trim saw machine • Perform freehand shaping ✓ Select appropriate tools and machine for free hand shaping ✓ Select the gemstone cut with justified reasoning ✓ Shape gemstone according to selected cut.

III. Complete practical task in preparing gemstone for faceting	• Perform Gemstone Doping ✓ Select doping material and dopstick as per requirement ✓ Fix stone on dopstick ✓ Verify doping visibility and adjust according to requirement. • Prepare stone for faceting ✓ Install and verify that the faceting unit is fully equipped operational ✓ Install master lap and 180 Diamond coated and 600 Diamond coated lap according to requirement ✓ Fix doped stone in faceter. • Gemstone orientation ✓ Make pre-form of stone for faceting
IV. Complete practical task in performing gemstone faceting and Performing gemstone polishing	Assessor should assign one cut from below mentioned list for Gemstone Faceting and Gemstone Polishing ○ Perform round cut ○ Perform vertical modified main faceting ○ Perform horizontal modified cut ○ Perform French star cut ○ Perform double star cut ○ Perform Step cut ○ Perform Mitchell Six rays star cut (96 index) ○ Perform Mitchell five rays star cut (80 index) ○ Perform jubilee cut ○ Perform brilliant bead cut ○ Perform double diamond horizontal cut ○ Perform Portuguese cut ○ Perform Scissors cut ○ Perform brilliant oval cut • Perform gemstone faceting and Perform gemstone polishing ✓ Perform pre-form of stone as per assigned cut ✓ Put angles and indexes for the crown as per selected cut ✓ Polish the stone of crown by diamond powder ✓ Change doping of stone to pavilion side ✓ Mark the stone by aluminum or any other pen ✓ Put angles and indexes for pavilion ✓ Polish the stone by diamond powder
2. Other requirements	• NA
3. Answer any questions your Assessor may have during the practical assessment	• My answers to questions are correct and demonstrate my understanding of the topics and their application

Candidate NameFather Name

INSTRUCTIONS FOR ASSESSMENT PANEL**THIS SECTION CONTAINS MINIMUM EVIDENCE REQUIREMENTS**

- The Assessment Panel will consist of three members: a registered Assessor, the candidate's Instructor and an expert from the private sector.
- The project brief will consist of integrated task requirements to enable the candidate to supply sufficient evidence of their competence in the skills required to work as a Gemstone Faceting
- The project brief must be suitable for the level of knowledge and skills required (i.e. Level 2)
- The time frame for completion of assigned project brief is 5 hours

ACTIVITIES	MINIMUM EVIDENCE REQUIRED	YES	NO	ASSESSOR COMMENTS
1. Complete practical task in performing to perform Gemstone Faceting under observation by an assessor, including:	During a practical assessment under observation by and assessor, the candidate correctly carried out the following tasks:			
Properties of gemstone	Calculate specific gravity with weighing balance			
	Identify gemstone on the basis of Refractive Index			
	Identify the cleavage, Breakage, Fracture and feathers and hardness. If any on the basis of physical properties			
	Describe the color zoning, critical angle and orientation			
Identify the crystal structure	Identify the crystal structure on the basis crystal sample on geometrical shapes (cubic, tetragonal, hexagonal, trigonal, orthorhombic, monoclinic and triclinic)			
Perform trimming	Make necessary arrangements in workstation			
	Mark stone for trimming			
	Remove unwanted portion through plier			
	Perform Trimming faceting of stone by using trim saw machine			
Perform freehand shaping	Select appropriate tools and machine for free hand shaping			
	Select the gemstone cut with justified reasoning			
	Shape gemstone according to selected cut.			
Gemstone Doping	Select doping material and dopstick as per requirement			
	Fix stone on dopstick			
	Verify doping visibility and adjust according to requirement.			
Prepare stone for faceting	Install and verify that the faceting unit is fully equipped operational			
	Install master lap and 180 Diamond coated and 600 Diamond coated lap according to requirement			
	Fix doped stone in faceter.			

Gemstone orientation	Make pre-form of stone for faceting			
Perform Gemstone Faceting and Gemstone Polishing for the assigned cut by assessor Assessor should assign one cut from below mentioned list for Gemstone Faceting and Gemstone Polishing ○ Round cut ○ Vertical modified main faceting ○ Horizontal modified cut ○ French star cut ○ Double star cut ○ Step cut ○ Mitchell Six rays star cut (96 index) ○ Mitchell five rays star cut (80 index) ○ Jubilee cut ○ Brilliant bead cut ○ Double diamond horizontal cut ○ Portuguese cut ○ Scissors cut ○ Brilliant oval cut	Perform pre-form of stone as per assigned cut			
	Put angles and indexes for the crown as per selected cut			
	Polish the stone of crown by diamond powder			
	Change doping of stone to pavilion side			
	Mark the stone by aluminum or any other pen			
	Put angles and indexes for pavilion			
	Polish the stone by diamond powder			

ACTIVITIES	MINIMUM EVIDENCE REQUIRED	YES	NO	ASSESSOR COMMENTS ON CANDIDATE PERFORMANCE
2. Answer any questions their Assessor may have during the practical assessment	Candidate answers to questions are correct and demonstrate understanding of the topics and their application. <i>Assessor to document all questions asked and candidate answers below. Use extra sheets if required and attach.</i>			

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LIST OF TOOLS, EQUIPMENT, MATERIAL AND CONTEXT OF ASSESSMENT

instructions	This section contains information regarding; - Context of the assessment - List of required tools and equipment. - List of consumable items required during the service
1.Context of Assessment	This practical final project will be conducted in a Lapidary lab/workshop environment. Required tools, equipment and consumables will vary according to project brief.

2. List of tools and equipment required		
S. No	Name of Items (tools and equipments)	Quantity
01	Loup 10X	
02	Hardness Pencil	
03	Crystal Models	
04	Tweezers	
05	Trim saw Machine	
06	Various types of blades for trimming	
07	Plier with Diamond coated tips	
08	Grinder with Diamond coated wheels.	
09	Gemstone Faceting Machine for free hand shaping	
10	Dope stick (round, V-Shaped and plate)	
11	Spirit lamp	
12	Facetor and faceting unit	
13	L-kerys	
14	180 and 600 Lap	
15	Master lap	

3. List of consumables		
S. No	Name of Items	Quantity/Volume
01	Various Gemstones as per need	
02	Gemstone for trimming and free hand shaping	
03	Wax	
04	Diamond Powder	
05	Oil	
06	Chrome oxide, aluminum oxide powder	