

Assessment Evidence Guide

For

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Level-5

Module name
(Formative Assessment)

8th -12th March 2021



**National Vocational & Technical
Training Commission**

Title of Qualification: Metallography Technician-II	CS Code:	Level: 5	Version: 01
Competency Standard Title: Perform Microscopic Examination Operation	Assessment Date (DD/MM/YY): Assessment Time:		

Candidate Details	Name: Registration/Roll Number:.....
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):</p> <p>Assessment Task 1: Candidate is required to: Perform Leveling Operation</p> <p>Assessment Task 2: Candidate is required to: Perform Microscopic Examination Operation</p> <p>And complete:</p> <ol style="list-style-type: none"> 1. Knowledge assessment test (Written or Oral) 2. Portfolios at the time of assessment (if any)
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1</p> <p>P1. Levelling the specimen by using on-toxic, non-staining, reusable modeling compound.</p> <p>P2. Put compound at bottom of specimen.</p> <p>P3. Cover the both ends of specimen with tissue to avoid stain on surface.</p> <p>P4. Apply small load with press.</p> <p>Assessment Task 2</p> <p>P1. Place the specimen onto the stage of Metallurgical microscope.</p> <p>P2. Power on source light and adjust its intensity.</p> <p>P3. Select the magnification power by adjusting eye piece number (50 to 1000X)</p> <p>P4. Adjusting the stage with the help of nobs to make clear microstructure of specimen.</p> <p>P5. Capture the picture of microstructure with the help of camera.</p> <p>P6. Save the image in computer for further study.</p>

	Portfolios required at the time of assessment (if any) for

Continued on following page

Assessors Judgment Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: Registration/Roll Number: Candidate Signature:
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Each Assessment Task (with performance criteria)				
Assessment Task 1		Description of assessment task 1		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
	Levelling the specimen by using on-toxic, non-staining, reusable modeling compound.			
	Put compound at bottom of specimen.			
	Cover the both ends of specimen with tissue to avoid stain on surface.			
	Apply small load with press.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 2		Description of assessment task 2		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
	Place the specimen onto the stage of Metallurgical microscope.			
	Power on source light and adjust its intensity.			
	Select the magnification power by adjusting eye piece number (50 to 1000X)			
	Adjusting the stage with the help of nobs to make clear microstructure of specimen.			
	Capture the picture of microstructure with the help of camera.			
	Save the image in computer for further study.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Title of Qualification: Metallography Technician-II	CS Code:	Level:5	Version: 01
Competency Standard Title: Perform Microscopic Examination Operation	Assessment Date (DD/MM/YY): Assessment Time: 30 min		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Assessors Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name:..... Registration/Roll Number: Candidate Signature:
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:

Title of Qualification: Metallography Technician-II	CS Code:	Level:5	Version: 01
Competency Standard Title: Perform Microscopic Examination Operation	Assessment Date (DD/MM/YY): Assessment Time: 30 min		

WRITTEN ASSESSMENT

Question	Candidate's answer
Define purpose of Metallography.	<ul style="list-style-type: none"> • To see different Phases • Ferrite • Pearlite
Explain metallographic technique	<ul style="list-style-type: none"> • Cutting • Polishing • Study under Microscope
Explain microscopic examination.	<ul style="list-style-type: none"> • Use different magnification 100- 1000X
Explain microstructure of steel, cast iron and Al, cu.	<ul style="list-style-type: none"> • Basic ,Heat treated, Microstructures