

# **Assessment Evidence Guide**

## **For**

**“ ”**

**Level-5**

**Non-Destructive Testing Technician**  
**(Formative Assessment)**

*8<sup>th</sup> -12<sup>th</sup> March 2021*



**National Vocational & Technical**  
**Training Commission**

<b>Title of Qualification:</b> Non-Destructive Testing Technician	<b>CS Code:</b>	<b>Level: 5</b>	<b>Version:</b>
<b>Competency Standard Title:</b>  <b>Perform Radiography and ultrasonic non-destructive techniques</b>	<b>Assessment Date (DD/MM/YY):</b>  <b>Assessment Time:</b>		

<b>Candidate Details</b>	Name: .....  Registration/Roll Number:.....
<b>Guidance for Candidate</b>	<p><b>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration &amp; assessment):</b></p> <p><b>Assessment Task 1:</b> Candidate is required to:  <b>Determine the defects of given specimen by radiography technique</b></p> <p><b>Assessment Task 2:</b> Candidate is required to:  <b>Determine the defects of specimen by using ultrasonic technique</b></p> <p><b>And complete:</b></p> <ol style="list-style-type: none"> <li>1. Knowledge assessment test (Written or Oral)</li> <li>2. Portfolios at the time of assessment (if any)</li> </ol>
<b>Minimum Evidence Required</b>	<p><b>During a practical assessment, under observation by an assessor, you will complete:</b></p> <p><b>Assessment Task 1</b></p> <ul style="list-style-type: none"> <li>• Perform pre-cleaning of samples.</li> <li>• Inspect all safety facilities as per standard</li> <li>• Set the position of photographic film</li> <li>• Place the specimen at specific position in front of photographic film</li> <li>• Pass the rays through the specimen</li> <li>• Develop the photographic film and observe the image</li> <li>• Interpret the results</li> </ul>

	<p><b>During a practical assessment, under observation by an assessor, you will complete:</b></p> <p><b>Assessment Task 2</b></p> <ul style="list-style-type: none"> <li>• Perform pre-cleaning of samples.</li> <li>• Switch ON the ultrasonic testing equipment</li> <li>• Calibrate the ultrasonic equipment with respect to calibration block</li> <li>• Apply couplant gel on the given specimen</li> <li>• Select the probe and test the given specimen</li> <li>• Interpret the results</li> </ul>
	<p><b>Portfolios required at the time of assessment (if any) for</b></p>

*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)			
<b>Assessment Task 1</b>		<b>Description of assessment task 1</b>	
During the practical assessment, candidate demonstrated the following:		Yes	No
	Perform pre-cleaning of samples.		
	Inspect all safety facilities as per standard		
	Set the position of photographic film		
	Place the specimen at specific position in front of photographic film		
	Pass the rays through the specimen		
	Develop the photographic film and observe the image		
	Interpret the results		
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>	

<b>Assessment Task 2</b>		<b>Description of assessment task 2</b>	
During the practical assessment, candidate demonstrated the following:		Yes	No
	Perform pre-cleaning of samples.		
	Switch ON the ultrasonic testing equipment		
	Calibrate the ultrasonic equipment with respect to calibration block		
	Apply couplant gel on the given specimen		
	Select the probe and test the given specimen		
	Interpret the results		
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>	

<b>Title of Qualification:</b> Non-Destructive Testing Technician	CS Code:	Level: 5	Version: 01
<b>Competency Standard Title:</b>  <b>Perform Radiography and Ultrasonic non-destructive techniques</b>	<b>Assessment Date (DD/MM/YY):</b>  <b>Assessment Time:</b> 30 min		

Guidance for Candidate	<b>To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.</b>
------------------------	--

**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: .....

<b>Title of Qualification:</b>	CS Code:	Level:	Version: 01
<b>Competency Standard Title:</b>	<b>Assessment Date (DD/MM/YY):</b>  <b>Assessment Time:</b> 30 min		

### WRITTEN ASSESSMENT

Question	Candidate's answer
1. Define non-destructive test.	The test during which work piece does not deform or break is known as non-destructive test. Work pieces remains useful after the test.
2. What is the purpose of NDT?	Non-destructive test is used to determine surface and internal defects of engineering components. These tests are used to check quality of a product.
3. What is the hearing capacity of human ear?	Human ear can hear sounds of frequency between 20 Hz and 20,000 Hz.
4. What are ultrasonic waves?	Ultrasonic waves are sound waves whose frequencies are higher than those of waves normally audible to the human ear.
5. How ultrasonic waves are produced?	Mostly Ultrasonic waves are produced by passing electric current through the crystals of quartz. Current causes vibrations in quartz and consequently ultrasonic waves are produced.
6. How many radiations can be used for radiography?	Two types of radiations can be used for radiography. I. X-rays II. Gamma rays