

**Assessment Evidence Guide**

**For**

**Woodworks**  
**(Carpentry Supervisor/Foreman)**  
**Level-4**

**(Formative Assessment)**



**National Vocational & Technical Training  
Commission Islamabad**

## Instruction Sheet for the Candidate

<b>Qualification</b>	National Competency Standards Level-4 for Woodworks “Carpentry Supervisor/ Foreman”
<b>Competency Standard</b>	0722-W&C-21 Perform CAD/CAM operations
<b>Purpose of Assessment</b>	Formative Assessment
<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 03 Hrs. time frame (for practical demonstration &amp; assessment):</b></p> <ul style="list-style-type: none"> <li>• Interpret Drawing &amp; Design using CAD</li> <li>• Draw &amp; design the job using CAD</li> <li>• Load the desired Tools</li> <li>• Perform Simulation</li> <li>• Perform Material Loading</li> <li>• Perform CAM Operations</li> </ul>
<b>Time: 03 Hrs.</b>	During a practical assessment, under observation by an assessor, you are required to
<b>Minimum Evidence Required</b>	<p><b>Interpret Drawing &amp; Design using CAD</b></p> <ol style="list-style-type: none"> <li>1. Collect the desired drawing &amp; design</li> <li>2. Transfer the desired drawing &amp; design to the concerned section/ person</li> <li>3. Perform supervision of the job as per drawing</li> </ol> <p><b>Draw &amp; design the job using CAD</b></p> <ol style="list-style-type: none"> <li>1. Consult catalogue as per client demand</li> <li>2. Set Interface in CAD software</li> <li>3. Make Multi view drawing &amp; design of the job</li> <li>4. Make 3D drawing &amp; design of the job/ part</li> <li>5. Render the job as per client's demand</li> <li>6. Plot/ print the job</li> </ol> <p><b>Load the desired Tools</b></p> <p>Trainee will be able to,</p>

	<ol style="list-style-type: none"> <li>1. Identify the required tools as per process</li> <li>2. Select the tools in the CAD/CAM software</li> <li>3. Load the tools in CAD/CAM software</li> </ol> <p><b>Perform Simulation</b></p> <ol style="list-style-type: none"> <li>1. Convert CAD to CAM codes using the software</li> <li>2. Operate Simulation to check accuracy of process</li> </ol> <p><b>Perform Material Loading</b></p> <ol style="list-style-type: none"> <li>1. Identify required parts of the job</li> <li>2. Set the clamping/ vacuum sucking units as per parts of the job</li> <li>3. Load the job parts on the machine bed</li> </ol> <p><b>Perform CAM Operations</b></p> <ol style="list-style-type: none"> <li>1. Ensure the loading of desired tools/ bits in ATC.</li> <li>2. Calibrate the machine.</li> <li>3. Execute the machine to complete the process</li> <li>4. Take out the completed part</li> </ol>
<b>Portfolios</b>	<b>Portfolios required at the time of assessment (if any)</b>

## Assessors Judgment Guide

<b>Qualification</b>	National Competency Standards Level-4 for Woodworks “Carpentry Supervisor/ Foreman”
<b>Competency Standard</b>	0722-W&C-21 Perform CAD/CAM operations
<b>Purpose of Assessment</b>	Formative Assessment
<b>Candidate Details</b>	Name: _____ Registration/Roll Number: _____ Signature: _____
<b>Assessment Outcome</b>	<p>COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/></p> <p>Name of the Assessor _____</p> <p>Assessor's code: _____</p> <p>Signature: _____</p>

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							

## Observation Checklist

<b>Assessment Task</b>		<ul style="list-style-type: none"> <li>• Interpret Drawing &amp; Design using CAD</li> <li>• Draw &amp; design the job using CAD</li> <li>• Load the desired Tools</li> <li>• Perform Simulation</li> <li>• Perform Material Loading</li> <li>• Perform CAM Operations</li> </ul>		
<b>During the practical assessment, candidate demonstrated the following:</b>		<b>Yes</b>	<b>No</b>	<b>Remarks</b>
1.	Collect the desired drawing & design			
2.	Transfer the desired drawing & design to the concerned section/ person			
3.	Perform supervision of the job as per drawing			
4.	Consult catalogue as per client demand			
5.	Set Interface in CAD software			
6.	Make Multi view drawing & design of the job			
7.	Make 3D drawing & design of the job/ part			
8.	Render the job as per client's demand			
9.	Plot/ print the job			
10.	Identify the required tools as per process			
11.	Select the tools in the CAD/CAM software			
12.	Load the tools in CAD/CAM software			
13.	Convert CAD to CAM codes using the software			
14.	Operate Simulation to check accuracy of process			
15.	Identify required parts of the job			
16.	Set the clamping/ vacuum sucking units as per parts of the job			

17.	Load the job parts on the machine bed			
18.	Ensure the loading of desired tools/ bits in ATC.			
19.	Calibrate the machine.			
20.	Execute the machine to complete the process			
21.	Take out the completed part			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

## Knowledge Assessment

<b>Qualification</b>	National Competency Standards Level-4 for Woodworks "Carpentry Supervisor/ Foreman"
<b>Competency Standard</b>	0722-W&C-21 Perform CAD/CAM operations
<b>Purpose of Assessment</b>	Formative Assessment
<b>Candidate Details</b>	Name: _____ Registration/Roll Number: _____ Candidate Signature: _____
<b>Assessment Outcome</b>	<div style="display: flex; justify-content: space-around; align-items: center;"> <span><b>COMPETENT</b> <input type="checkbox"/></span> <span><b>NOT YET COMPETENT</b> <input type="checkbox"/></span> </div> Name of the Assessor: _____ Assessor's code: _____ Signature of the Assessor: _____

Candidate's response is not required to be identical, but similar concepts and/or keywords must be used. Oral questioning may be used to clarify candidate understanding of topic and its application.

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)		Satisfactory	Not Satisfactory
1.	What are the essential personal protective Equipment?		
2.	What is difference between Drawing & Design?		

3.	Enlist the desired Tools for CAD CAM?		
4.	What is Perform Simulation?		
5.	What is the material loading method in CAD CAM?		

<b>Feedback to the Candidate</b>	
Candidate's Signature _____	Assessor's Signature _____



## Knowledge Assessment – Answers

1.	What is the essential personal protective Equipment?
	<ul style="list-style-type: none"> <li>• Hand Gloves</li> <li>• Safety Goggles OR Face Shield</li> <li>• Safety Shoes</li> <li>• Safety Helmet</li> </ul>
2.	What is difference between Drawing & Design?
	<ul style="list-style-type: none"> <li>• Drawing is a picture, likeness, diagram or representation, drawn on paper</li> <li>• Design is a plan (with more or less detail) for the structure and functions of an artifact, building or system</li> </ul>
3.	Enlist the desired Tools for CAD CAM?
	<ol style="list-style-type: none"> <li>1. End mill</li> <li>2. Face mill</li> <li>3. Fly cutter</li> <li>4. Thread mill</li> <li>5. Drill bit</li> <li>6. Reamer</li> <li>7. Hollow mill</li> </ol>
4.	What is Perform Simulation?
	The simulation is a demonstration of complete process of desire job with use of a computer and software.
5.	What is the material loading method in CAD CAM?
	<ul style="list-style-type: none"> <li>• Insure PPE</li> <li>• Disconnect machine from power supply</li> <li>• Open protection window</li> <li>• Arrange keys / spanners</li> <li>• Dismantle job if already place in machine.</li> <li>• Insure machine limit for the desire job.</li> <li>• Place the job material in the machine.</li> </ul>

	<ul style="list-style-type: none"><li>• Check the fastening of the job in the machine.</li><li>• Close the safety window of the machine</li><li>• Run the machine.</li></ul>
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