

Assessment Evidence Guide

For

“Dies and Mould Technology”

Level-4

Perform CAD/CAM Operations
(Formative Assessment)

1st -5th March 2021



**National Vocational & Technical
Training Commission**

Title of Qualification: National Vocational Certificate Level 4, (Dies and Mould Technology) "CAD/CAM Supervisor"	CS Code:	Level: 4	Version: 01
Competency Standard Title: Perform CAD/CAM Operations	Assessment Date (DD/MM/YY): Assessment Time: 3hrs		

Candidate Details	Name: Registration/Roll Number:.....
Guidance for Candidate	To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment): Assessment Task 1: Candidate is required to create 3D Model of the product/drawing given by assessor and manipulate it according to the requirements. Assessment Task 2: Candidate is required to Perform Tool Path Generation, Simulate the CAM data and generate part program file according to the requirement. And complete: 1. Knowledge assessment test (Written or Oral) 2. Portfolios at the time of assessment (if any)
Minimum Evidence Required	During a practical assessment, under observation by an assessor, you will complete: Assessment Task 1 Performance Criteria 1: Set up template for required specifications. Performance Criteria 2: Create/import/link/fetch/merge 2D drawing to make 3D objects according to given specification Performance Criteria 3: Use Geometry & shapes to make 3D objects according to given specification. Performance Criteria 4: Modify 3D objects in line with the requirements. Performance Criteria 5: Make customized 3D models according to the requirement of given job. Assessment Task 2 Performance Criteria 1: Select appropriate CAM software according to the machine control unit Performance Criteria 2: Import 3D CAD model Performance Criteria 3: Set reference point and apply material/stock for machining to the model as per job requirements Performance Criteria 4: Use appropriate part programming credentials

	(Coordinates, Feed, Speed, Tooling Information etc.) according to the CNC machine control unit Performance Criteria 5: Apply machining feature(s), toolpath strategies and leads/links as per prescribed procedure Performance Criteria 6: Check the simulation according to the applied tool path strategy to verify movements of tool/cutter to get same results as per defined sequence Performance Criteria 7: Generate part program file against the applied machining sequence according to the post processor of CNC machine
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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 ☐ NOT YET COMPETENT ☐ 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 Candidate is required to create 3D Model of the product/drawing given by assessor and manipulate it according to the requirements.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Set up template for required specifications.			
2	Create/import/link/fetch/merge 2D drawing to make 3D objects according to given specification			
3	Use Geometry & shapes to make 3D objects according to given specification.			
4	Modify 3D objects in line with the requirements.			
5	Make customized 3D models according to the requirement of given job.			
Competent ☐		Not Yet Competent ☐		

Assessment Task 2		Description of assessment task 2 Candidate is required to Perform Tool Path Generation, Simulate the CAM data and generate part program file according to the requirement.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Select appropriate CAM software according to the machine control unit			
2	Import 3D CAD model			
3	Set reference point and apply material/stock for machining to the model as per job requirements			
4	Use appropriate part programming credentials (Coordinates, Feed, Speed, Tooling Information etc.) according to the CNC machine control unit			
5	Apply machining feature(s), toolpath strategies and leads/links as per prescribed procedure			
6	Check the simulation according to the applied tool path strategy to verify movements of tool/cutter to get same results as per defined sequence			
7	Generate part program file against the applied machining sequence according to the post processor of CNC machine			
Competent ☐		Not Yet Competent ☐		