

Assessment Evidence Guide

For

“Dies and Mould Technology”

Level-4

**Perform CNC Milling/Machining Centre
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 CNC Milling/Machining Centre 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 a program and perform CNC Milling/Machining centre operations on workpiece according to the drawing given by assessor. 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: Switch on the machine Performance Criteria 2: Check oil levels Performance Criteria 3: Run machine warm-up cycle Performance Criteria 4: Select appropriate tool & clamping device according to the job requirement. Performance Criteria 5: Manage the measuring instruments as per job requirement. Performance Criteria 6: Mount the work-piece as per SOPs Performance Criteria 7: Mount the cutter in spindle/ATC as per job requirement Performance Criteria 8: Perform off-set setting of the workpiece and tools (compensations) Performance Criteria 9: Set reference point for machining as per job requirements Performance Criteria 10: Use appropriate part programming credentials (Coordinates, Feed, Speed, Tooling Information etc.) according to the CNC machine control unit Performance Criteria 11: Generate part program using G & M codes Performance Criteria 12: Perform simulation of generated program Performance Criteria 13: Ensure proper synchronization between machine control unit and part program file as per procedure Performance Criteria 14: Switch machine to receiving mode and feed the desired part program file into machine control unit for further execution as per procedure

	Performance Criteria 15: Select the desired part program file for execution as per procedure Performance Criteria 16: Ensure to control the safe operation of working on CNC machines before executing part program according to the safety measures Performance Criteria 17: Control the feed and speed override of machine before and during the operation according to the requirement Performance Criteria 18: Carry out CNC Milling Operations Performance Criteria 19: Perform deburring of the job using appropriate tool Performance Criteria 20: Inspect the job using appropriate measuring tool
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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 a program and perform CNC Milling/Machining centre operations on workpiece according to the drawing given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Switch on the machine			
2.	Check oil levels			
3.	Run machine warm-up cycle			
4.	Select appropriate tool & clamping device according to the job requirement.			
5.	Manage the measuring instruments as per job requirement.			
6.	Mount the work-piece as per SOPs			
7.	Mount the cutter in spindle/ATC as per job requirement			
8.	Perform off-set setting of the workpiece and tools (compensations)			
9.	Set reference point for machining as per job requirements			
10.	Use appropriate part programming credentials (Coordinates, Feed, Speed, Tooling Information etc.) according to the CNC machine control unit			
11.	Generate part program using G & M codes			
12.	Perform simulation of generated program			
13.	Ensure proper synchronization between machine control unit and part program file as per procedure			
14.	Switch machine to receiving mode and feed the desired part program file into machine control unit for further execution as per procedure			
15.	Select the desired part program file for execution as per procedure			
16.	Ensure to control the safe operation of working on CNC machines before executing part program according to the safety measures			
17.	Control the feed and speed override of machine before and during the operation according to the requirement			
18.	Carry out CNC Milling Operations			
19.	Perform deburring of the job using appropriate tool			
20.	Inspect the job using appropriate measuring tool			
Competent ☐		Not Yet Competent ☐		