

Assessment Evidence Guide

For

“Dies and Mould Technology”

Level-3

Perform CNC Lathe Operations
(Formative Assessment)

1st -5th March 2021



**National Vocational & Technical
Training Commission**

Title of Qualification: National Vocational Certificate Level 3, in (Dies and Mould Technology) "CNC Machinist"	CS Code:	Level: 3	Version: 01
Competency Standard Title: Perform CNC Lathe operations Identify and implement Workplace Policies and Procedures Apply work health and safety practices (WHS) Communicate at workplace	Assessment Date (DD/MM/YY): Assessment Time: 3 Hours		

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 prepare CNC program and perform CNC Lathe Operations on work piece according to the drawing assign 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: Interpret job requirements to remove extra material as per drawing/design Performance Criteria 2: Generate appropriate part programming credentials (Sequence, G-codes, M-codes, coordinates, feed, speed, tooling information etc.) according to the CNC machine control unit Performance Criteria 3: Feed the generated part program into appropriate simulation platform Performance Criteria 4: Run simulation and verify movements of tool/cutter to get same results as per defined sequence Performance Criteria5: Correct the errors (if any) and modify the program as per defined procedure Performance Criteria 6: Select appropriate tool & clamping device according to the job requirement Performance Criteria 7: Manage the measuring instruments as per job requirement. Performance Criteria 8: Clamp the job firmly as per standards using appropriate work holding device(s) in order to achieve dimensional accuracy Performance Criteria 9: Mount the tools in tool post/tool turret as per job requirement Performance Criteria 10: Perform off-set setting (tool compensation) of the tools as per reference point of work piece

	Performance Criteria 11: Ensure to control the safe operation of working on CNC machines before executing part program according to the safety measures Performance Criteria 12: Control the feed and speed override of machine before and during the operation according to the requirement Performance Criteria 13: Switch machine to execution mode (single block or auto) and press cycle start to run the program Performance Criteria 14: Inspect the work piece accuracy and precision according to the drawing/design and take appropriate action in case of any error Performance Criteria 15: Check quality of the component at suitable intervals Performance Criteria 16: Shut down the machine at safe position after finishing the work Performance Criteria 17: Identify the workplace policy & procedures Performance Criteria 18: Apply appropriate strategies that can be used to measure whether your workplace health and safety obligations are being met Performance Criteria 19: Comply with duty of care requirements Performance Criteria 20: Use personal protective equipment according to safe work practices Performance Criteria 21: Use various media to communicate effectively Performance Criteria 22: Communicate orally and written
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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 prepare CNC program and perform CNC Lathe Operations on work piece according to the drawing assign by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Interpret job requirements to remove extra material as per drawing/design			
2.	Generate appropriate part programming credentials (Sequence, G-codes, M-codes, coordinates, feed, speed, tooling information etc.) according to the CNC machine control unit			
3.	Feed the generated part program into appropriate simulation platform			
4.	Run simulation and verify movements of tool/cutter to get same results as per defined sequence			
5.	Correct the errors (if any) and modify the program as per defined procedure			
6.	Select appropriate tool & clamping device according to the job requirement			
7.	Manage the measuring instruments as per job requirement			
8.	Clamp the job firmly as per standards using appropriate work holding device(s) in order to achieve dimensional accuracy			
9.	Mount the tools in tool post/tool turret as per job requirement			
10.	Perform off-set setting (tool compensation) of the tools as per reference point of work piece			
11.	Ensure to control the safe operation of working on CNC machines before executing part program according to the safety measures			
12.	Control the feed and speed override of machine before and during the operation according to the requirement			
13.	Switch machine to execution mode (single block or auto) and press cycle start to run the program			
14.	Inspect the work piece accuracy and precision according to the drawing/design and take appropriate action in case of any error			
15.	Check quality of the component at suitable intervals.			
16.	Shut down the machine at safe position after finishing the work			
17.	Identify the workplace policy & procedures			
18.	Apply appropriate strategies that can be used to measure whether your workplace health and safety obligations are being met			

19.	Comply with duty of care requirements			
20.	Use personal protective equipment according to safe work practices			
21.	Use various media to communicate effectively			
22.	Communicate orally and written			
Competent ☐		Not Yet Competent ☐		