

Assessment Evidence Guide

For

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Level-5

Module name
(Formative Assessment)

8th -12th March 2021



**National Vocational & Technical
Training Commission**

Title of Qualification: QC inspector 2 (level 5)	CS Code:	Level: 2	Version: 01
Competency Standard Title: Conduct process and product capability analysis Perform advanced statistical quality control	Assessment Date (DD/MM/YY): Assessment Time:		

Candidate Details	Name: Registration/Roll Number:.....
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment) :</p> <p>Assessment Task 1: Candidate is required to: Perform Process capability analysis and Sigma Quality Level for given Processes given in Annexure A using appropriate software:</p> <p>And complete:</p> <ol style="list-style-type: none"> 1. Knowledge assessment test (Written or Oral) 2. Portfolios at the time of assessment (if any)
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1</p> <ul style="list-style-type: none"> Analyze data from trial run Generate histogram from given data Identify the data type Calculate process capability according to the data type (C_p & C_{pk}) Translate the Process capability into defects per million Calculate Sigma Quality Level <p>Portfolios required at the time of assessment (if any) for</p>

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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 <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)				
Assessment Task 1		Description of assessment task 1		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Analyze data from trial run			
2.	Generate histogram from given data			
3.	Identify the data type			
4.	Calculate process capability according to the data type (C_p & C_{pk})			
5.	Translate the Process capability into defects per million			
6.	Calculate Sigma Quality Level			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Title of Qualification: QC inspector 2 (level 5)	CS Code:	Level: 5	Version: 01
Competency Standard Title: Conduct process and product capability analysis Perform advanced statistical quality control	Assessment Date (DD/MM/YY): Assessment Time: 30 min		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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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:

Title of Qualification: QC inspector 2 (level 5)	CS Code:	Level:5	Version: 01
Competency Standard Title: Conduct process and product capability analysis Perform advanced statistical quality control	Assessment Date (DD/MM/YY): Assessment Time: 30 min		

WRITTEN ASSESSMENT

Question	Candidate's answer
1. What is the purpose of using cause and effect diagram?	<ul style="list-style-type: none"> To identify root cause
2. What is the purpose of using pareto chart?	<ul style="list-style-type: none"> To find the defects to prioritize in order to observe the greatest overall improvement.
3. What do you mean by control limits?	<ul style="list-style-type: none"> Control limits are the horizontal lines above and below the center line that are used to judge whether a process is out of control
4. Name any two control chart for attribute data when sample size is constant?	<ul style="list-style-type: none"> Np chart P chart
5. Name any two control chart for variable data when sample size is more than 10?	<ul style="list-style-type: none"> X-bar & S chart.

Annexure A:

Consider the two processes shown here:

Process A	Process B
$\mu = 105$	$\mu = 110$
$\sigma = 3$	$\sigma = 1$

Specifications area at 100 ± 4 : Calculate C_p , C_{pk} and interpret these ratios. Which Process would prefer to use?