

Assessment Evidence Guide

For

“Junior Draftsman in CAD/CAM”

Level-2

Perform Basic Manual Drawing

(Formative Assessment)



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Certificate of level 2 in Computer Aided Design & Manufacturing (CAD/CAM (Junior Draftsman)	CS Code:	Level:2	Version:01
Competency Standard Title: Perform Basic Manual Drawing Follow Safety Rules at Site Perform Basic Communication Skills	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 draw single stroke capital vertical lettering as per instruction given by assessor.</p> <p>Assessment Task 2: Candidate is required to draw single stroke capital inclined lettering as per instruction given by assessor.</p> <p>Assessment Task 3: Candidate is required to draw engineering drawing lines as per instruction given by assessor.</p> <p>Assessment Task 4: Candidate is required to draw different types of circles, half circles, radius with compass as per instruction given by assessor.</p> <p>Assessment Task 5: Candidate is required to draw different Lines as per instruction given by assessor.</p> <p>Assessment Task 6: Candidate is required to draw round corners, circles elements, quadrilaterals as per instruction given by assessor.</p> <p>Assessment Task 7: Candidate is required to draw different types of triangles as per instruction given by assessor.</p> <p>And complete:</p> <ol style="list-style-type: none"> Knowledge assessment test (Written or Oral) Portfolios at the time of assessment (if any)
Minimum Evidence Required	During a practical assessment, under observation by an assessor, you will complete:

	<p>Assessment Task 1</p> <p>Performance Criteria 1: Prepare Drawing sheet.</p> <p>Performance Criteria 2: Select the tools.</p> <p>Performance Criteria 3: Use Proper pencil for lettering with holding techniques.</p> <p>Performance Criteria 4: Draw Boundary lines as per standards.</p> <p>Performance Criteria 5: Make title bar</p> <p>Performance Criteria 6: Draw upper and lower lines for lettering according to standards.</p> <p>Performance Criteria 7: Start Writing Vertical Lettering with different style like Gothic, Roman and free hand lettering.</p> <p>Performance Criteria 8: Carry out the instructions of the supervisor</p>
	<p>Assessment Task 2</p> <p>Performance Criteria 1: Draw Boundaries lines as per standards.</p> <p>Performance Criteria 2: Make title bar</p> <p>Performance Criteria 3: Draw upper and lower lines for lettering according to standards.</p> <p>Performance Criteria 4: Start Writing inclined Lettering with different style like Gothic, Roman and free hand lettering.</p>
	<p>Assessment Task 3</p> <p>Performance Criteria 1: Draw Boundaries lines as per standards.</p> <p>Performance Criteria 2: Make title bar</p> <p>Performance Criteria 3: Divide the sheets in different equal parts.</p> <p>Performance Criteria 4: Draw the engineering drawing lines including part outlines, section lines, hidden lines, centre lines, dimension lines, extension lines, cutting plane, break lines.</p>
	<p>Assessment Task 4</p> <p>Performance Criteria 1: Divide the sheets in different equal parts.</p> <p>Performance Criteria 2: Draw different diameters circles and half circles.</p> <p>Performance Criteria 3: Maintain housekeeping</p>
	<p>Assessment Task 5</p> <p>Performance Criteria 1: Draw Center lines,</p> <p>Performance Criteria 2: Draw parallel-lines,</p> <p>Performance Criteria 3: Draw perpendicular & bisects line,</p> <p>Performance Criteria 4: Draw equal division of lines</p> <p>Performance Criteria 5: Draw crossing line</p>
	<p>Assessment Task 6</p> <p>Performance Criteria 1: Make title bar</p> <p>Performance Criteria 2: Divide the sheets in different equal parts.</p> <p>Performance Criteria 3: Draw different diameter circles.</p> <p>Performance Criteria 4: Draw a quadrilateral as per given dimension.</p> <p>Performance Criteria 5: Report unsafe condition to immediate supervisor (shift position)</p>

	<p>Assessment Task 7</p> <p>Performance Criteria 1: Draw Equilateral Triangle, Isosceles triangle,</p> <p>Performance Criteria 2: Scalene Triangle, Right Triangle, Obtuse Triangle, Acute Triangle.</p> <p>Performance Criteria 3: Report to the supervisor as per organizational SOPs given standards.</p>
	Portfolios required at the time of assessment (if any) for

Assessors Judgment Guide

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							

Observation Checklist

Assessment Task 1		Description of Assessment Task 1		
		draw single stroke capital vertical lettering as per instruction given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Prepare Drawing sheet.			
2.	Select the tools.			
3.	Use Proper pencil for lettering with holding techniques.			
4.	Draw Boundary lines as per standards.			
5.	Make title bar			
6.	Draw upper and lower lines for lettering according to standards.			
7.	Start Writing Vertical Lettering with different style like Gothic, Roman and free hand lettering.			
8.	Carry out the instructions of the supervisor			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		
Each Assessment Task (with performance criteria)				

Assessment Task 2		Description of Assessment Task2		
		draw single stroke capital inclined lettering as per instruction given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Draw Boundaries lines as per standards.			
2.	Make title bar			
3.	Draw upper and lower lines for lettering according to standards.			
4.	Start Writing inclined Lettering with different style like Gothic, Roman and free hand lettering.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 3		Description of Assessment Task 3		
		draw engineering drawing lines as per instruction given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Draw Boundaries lines as per standards.			
2.	Make title bar			
3.	Divide the sheets in different equal parts.			
4.	Draw the engineering drawing lines including part outlines, section lines, hidden lines, centre lines, dimension lines, extension lines, cutting plane, break lines.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 4		Description of Assessment Task 4		
		draw different types of circles, half circles, radius with compass as per instruction given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Divide the sheets in different equal parts.			
2.	Draw different diameters circles and half circles.			
3.	Maintain housekeeping			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 5		Description of Assessment Task 5		
		draw different Lines as per instruction given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Draw Center lines,			
2.	Draw parallel-lines,			
3.	Draw perpendicular & bisects line,			
4.	Draw equal division of lines			
5.	Draw crossing line			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 6		Description of Assessment Task 6		
		draw round corners, circles elements, quadrilaterals as per instruction given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Make title bar			
2.	Divide the sheets in different equal parts.			
3.	Draw different diameter circles.			
4.	Draw a quadrilateral as per given dimension.			
5.	Report unsafe condition to immediate supervisor			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 7		Description of Assessment Task7		
		draw different types of triangles as per instruction given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Draw Equilateral Triangle, Isosceles triangle,			
2.	Scalene Triangle, Right Triangle, Obtuse Triangle, Acute Triangle.			
3.	Report to the supervisor as per organizational SOPs given standards.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Knowledge Assessment

Title of Qualification: National Certificate of level 2 in Computer Aided Design & Manufacturing (CAD/CAM (Junior Draftsman)	CS Code:	Level: 2	Version: 01
Competency Standard Title: Perform Basic Manual Drawing Follow Safety Rules at Site Perform Basic Communication Skills	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.
------------------------	--

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:

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. Enlist five Verbal communication techniques?	
2. Enlist non-verbal communication techniques?	
3. Enlist two general safety rules.	

Assessment Evidence Guide

For

“Junior Draftsman in CAD/CAM”

Level-2

Construct Different Engineering Curves
(Formative Assessment)



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Certificate of level 2 in Computer Aided Design & Manufacturing (CAD/CAM (Junior Draftsman)	CS Code:	Level: 2	Version: 01
Competency Standard Title: Construct different engineering curve Follow Safety Rules at Site Perform Basic Communication Skills	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 construct inscribe and circumscribe figures as per instruction given by assessor</p> <p>Assessment Task 2: Candidate is required to draw polygons by circumscribe and inscribe method as per instruction given by assessor</p> <p>Assessment Task3: Candidate is required to perform face and body waxing as per instruction given by assessor</p> <p>Assessment Task4: Candidate is required to construct tangents of circles (Inner & External) as per instruction given by assessor.</p> <p>Assessment Task5: Candidate is required to draw different ellipse as per instruction given by assessor</p> <p>Assessment Task6: Candidate is required to draw different curves as per instruction given by assessor</p> <p>Assessment Task7: Candidate is required to draw of cycloid, epicycloid, and hypocycloid as per instruction given by assessor</p> <p>And complete:</p> <ol style="list-style-type: none"> Knowledge assessment test (Written or Oral) 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> <p>Performance Criteria 1: Divide the sheets in different equal parts.</p> <p>Performance Criteria 2: Draw square, triangle and hexagon according to dimension.</p> <p>Performance Criteria 3: Report to the supervisor as per organizational SOPs given standards.</p>
	<p>Assessment Task 2</p> <p>Performance Criteria 1: Divide the sheets in different equal parts.</p> <p>Performance Criteria 2: Draw various polygons (Pentagon, Hexagon, Heptagon, Octagon)</p> <p>Performance Criteria 3: Report unsafe condition to immediate supervisor</p>
	<p>Assessment Task 3</p> <p>Performance Criteria 1: Divide the sheets in different equal parts.</p> <p>Performance Criteria 2: Draw pentagon, Hexagon and Octagon.</p>
	<p>Assessment Task 4</p> <p>Performance Criteria 1: Draw inner tangents of two circles when the center of the circle is known.</p> <p>Performance Criteria 2: Draw inner tangents of two circles when the center of the circle is unknown</p> <p>Performance Criteria 3: Draw external tangent of a circle when the center of the circle is known</p> <p>Performance Criteria 4: Draw external tangent of a circle when the center of the circle is known</p>
	<p>Assessment Task 5</p> <p>Performance Criteria 1: Draw an Ellipse by Concentric Circle.</p> <p>Performance Criteria 2: Draw an Ellipse by Rectangle Method</p> <p>Performance Criteria 3: Draw an Ellipse by Oblong Method</p> <p>Performance Criteria 4: Draw an Ellipse by Arcs of Circle Method</p> <p>Performance Criteria 5: Draw an Ellipse by Rhombus Method.</p> <p>Performance Criteria 6: Draw an Ellipse by Basic Locus Method</p>
	<p>Assessment Task 6</p> <p>Performance Criteria 1: Draw a parabola curve by Rectangle</p> <p>Performance Criteria 2: Draw a parabola curve by Method of Tangents (Triangle Method)</p> <p>Performance Criteria 3: Draw a parabola curve by Basic Locus Method</p> <p>Performance Criteria 4: Draw a hyperbola curve.</p> <p>Performance Criteria 5: Draw Archimedean Spiral curve.</p> <p>Performance Criteria 6: Draw involute curve by square</p> <p>Performance Criteria 7: Draw involute curve by rectangle</p> <p>Performance Criteria 8: Draw involute curve by hexagon</p> <p>Performance Criteria 9: Draw involute curve by circle.</p>

	<p>Assessment Task 7</p> <p>Performance Criteria 1: Draw the generating circle and the base line equal to the circumference of the generating circle</p> <p>Performance Criteria 2: Divide the circle and the base line in to equal number of parts</p> <p>Performance Criteria 3: Complete the cycloid, epicycloids, and hypocycloid</p>
--	---

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							

Observation Checklist

Assessment Task 1		Description of Assessment Task 1		
		Construct inscribe and circumscribe figures as per instruction given by assessor		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Divide the sheets in different equal parts.			
2.	Draw square, triangle and hexagon according to dimension.			
3.	Report to the supervisor as per organizational SOPs given standards.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 2		Description of Assessment Task 2		
		Draw polygons by circumscribe and inscribe method as per instruction given by assessor		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Divide the sheets in different equal parts.			
2.	Draw various polygons (Pentagon, Hexagon, Heptagon, Octagon)			
3.	Report unsafe condition to immediate supervisor			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task3		Description of Assessment Task 3		
		Perform face and body waxing as per instruction given by assessor		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Divide the sheets in different equal parts.			
2.	Draw pentagon, Hexagon and Octagon.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task4		Description of Assessment Task 4		
		Construct tangents of circles (Inner & External) as per instruction given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Draw inner tangents of two circles when the center of the circle is known.			
2.	Draw inner tangents of two circles when the center of the circle is unknown			
3.	Draw external tangent of a circle when the center of the circle is known			
4.	Draw external tangent of a circle when the center of the circle is known			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task5		Description of Assessment Task 5		
		Draw different ellipse as per instruction given by assessor		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Draw an Ellipse by Concentric Circle.			
2.	Draw an Ellipse by Rectangle Method			
3.	Draw an Ellipse by Oblong Method			
4.	Draw an Ellipse by Arcs of Circle Method			
5.	Draw an Ellipse by Rhombus Method.			
6.	Draw an Ellipse by Basic Locus Method			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task6		Description of Assessment Task 6		
		Draw different curves as per instruction given by assessor		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Draw a parabola curve by Rectangle			
2.	Draw a parabola curve by Method of Tangents (Triangle Method)			
3.	Draw a parabola curve by Basic Locus Method			
4.	Draw a hyperbola curve.			
5.	Draw Archimedean Spiral curve.			
6.	Draw involute curve by square			
7.	Draw involute curve by rectangle			
8.	Draw involute curve by hexagon			
9.	Draw involute curve by circle.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task7		Description of Assessment Task 7		
		Draw of cycloid, epicycloid, and hypocycloid as per instruction given by assessor		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Draw the generating circle and the base line equal to the circumference of the generating circle			
2.	Divide the circle and the base line in to equal number of parts			
3.	Complete the cycloid, epicycloids, and hypocycloid			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Knowledge Assessment

Title of Qualification: National Certificate of level 2 in Computer Aided Design & Manufacturing (CAD/CAM (Junior Draftsman)	CS Code:	Level: 2	Version: 01
Competency Standard Title: Construct different engineering curve Follow Safety Rules at Site Perform Basic Communication Skills	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.
------------------------	--

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:

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. What is meant by PPEs?	
2. Define communication skills?	
3. Enlist different types of drawing papers/sheets and drawing pencils?	

Assessment Evidence Guide

For

“Junior Draftsman in CAD/CAM”

Level-2

**Perform Free Hand Sketching (Isometric)
(Formative Assessment)**



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Certificate of level 2 in Computer Aided Design & Manufacturing (CAD/CAM (Junior Draftsman)	CS Code:	Level: 2	Version: 01
Competency Standard Title: Perform free hand sketching (Isometric)	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 construct Top, Front & Side views from an isometric view of an object/drawing as per instructions given by assessor.</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> <p>Performance Criteria 1: Select the angle of projection (1st or 3rd angle)</p> <p>Performance Criteria 2: Draw the Side view of object</p> <p>Performance Criteria 3: Draw the Top view of object from its isometric view</p> <p>Performance Criteria 4: Draw the Front view of object from its isometric view</p> <p>Performance Criteria 5: Draw the Side view of object from its isometric view</p> <p>Performance Criteria 6: Cross check the views for any correction according to standards.</p> <p>Performance Criteria 7: Report to the supervisor as per organizational SOPs given standards.</p>

Assessors Judgment Guide

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							

Observation Checklist

Each Assessment Task (with performance criteria)				
Assessment Task 1	Description of Assessment Task 1 Construct Top, Front & Side views from an isometric view of an object/drawing as per instructions given by assessor.			
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Select the angle of projection (1 st or 3 rd angle)			
2.	Draw the Side view of object			
3.	Draw the Top view of object from its isometric view			
4.	Draw the Front view of object from its isometric view			
5.	Draw the Side view of object from its isometric view			
6.	Cross check the views for any correction according to standards.			

Competent <input type="checkbox"/>	Not Yet Competent <input type="checkbox"/>
------------------------------------	--

Knowledge Assessment

Title of Qualification: National Certificate of level 2 in Computer Aided Design & Manufacturing (CAD/CAM (Junior Draftsman)	CS Code:	Level: 2	Version: 01
Competency Standard Title: Perform free hand sketching (Isometric)	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.
------------------------	--

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:

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. What is report?	
2. What is the isometric view?	
3. Enlist different views?	

Assessment Evidence Guide

For

“Junior Draftsman in CAD/CAM”

Level-2

Construct Multi-View Drawings (Sectioning)

(Formative Assessment)



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Certificate of level 2 in Computer Aided Design & Manufacturing (CAD/CAM (Junior Draftsman)	CS Code:	Level: 2	Version: 01
Competency Standard Title: Construct multi-view drawings (Sectioning)	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 sketch orthographic projection in 1st angle of projection as per instruction given by assessor.</p> <p>Assessment Task 2: Candidate is required to a sketch orthographic projection in 3rd angle of projection as per instruction given by assessor.</p> <p>Assessment Task 3: Candidate is required to sketch oblique view drawing as per instruction given by assessor.</p> <p>Assessment Task 4: Candidate is required to construct multi view drawing of simple bearing as per instruction given by assessor.</p> <p>Assessment Task 5: Candidate is required to construct multi view drawing of open bearing as per instruction given by assessor.</p> <p>Assessment Task 6: Candidate is required to sketch followings as per instruction given by assessor.:</p> <ul style="list-style-type: none"> ✓ Prism ✓ Cone ✓ Pyramid <p>Assessment Task 7: Candidate is required to sketch followings as per instruction given by assessor.:</p> <ul style="list-style-type: none"> ✓ Full section ✓ half section ✓ offset section ✓ Broken section ✓ Rotated/revolved section <p>And complete:</p> <ol style="list-style-type: none"> 3. Knowledge assessment test (Written or Oral) 4. 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> <p>Performance Criteria 1: Draw plan view in 1st angle of Projection by orthographic projection.</p> <p>Performance Criteria 2: Draw top view in 1st angle of Projection by orthographic projection</p> <p>Performance Criteria 3: Draw front view in 1st angle of Projection by orthographic projection.</p> <p>Performance Criteria 4: Draw side view in 1st angle of Projection by orthographic projection.</p>

Minimum Evidence Required	Assessment Task 2 Performance Criteria 1: Draw plan view in 3rd angle of projection by orthographic projection. Performance Criteria 2: Draw top view in 3rd angle of projection by orthographic projection. Performance Criteria 3: Draw front view in 3rd angle of projection by orthographic projection. Performance Criteria 4: Draw side view in 3rd angle of projection by orthographic projection.
	Assessment Task 3 Performance Criteria 1: Draw Boundaries lines as per standards. Performance Criteria 2: Make title bar Performance Criteria 3: Divide the sheets in equal parts Performance Criteria 4: Draw the oblique view of the given object at receding axis of 30 degree or 45 degrees.
	Assessment Task 4 Performance Criteria 1: Draw plan view of simple bearing Performance Criteria 2: Draw front view of simple bearing Performance Criteria 3: Draw side view of simple bearing
	Assessment Task 5 Performance Criteria 1: Divide the sheets in equal parts. Performance Criteria 2: Draw plan view of open bearing Performance Criteria 3: Draw front view of open bearing Performance Criteria 4: Draw side view of open bearing
	Assessment Task 6 Performance Criteria 1: Sketch prism Performance Criteria 2: Start with a horizontal oval Performance Criteria 3: Draw the two sides of a triangle which meets at a common point Performance Criteria 4: Sketch pyramid
	Assessment Task 7 Performance Criteria 1: Draw the cutting plane line which passes fully through the object/part Performance Criteria 2: Draw the section-lined areas which are portions that have been in actual contact with the cutting-plane Performance Criteria 3: Draw the cutting-plane line which cuts halfway through the part/object Performance Criteria 4: Remove one quarter (1/4 th) of the material Performance Criteria 5: Draw offset Section views by bend the cutting plane at right angles to pass through the desired internal features Performance Criteria 6: Draw the object/part in an orthographic view Performance Criteria 7: Remove a small amount of material to show the interior details (without using a cutting-plane line) Performance Criteria 8: Draw the object Performance Criteria 9: Show a cross-section of an area turned 90 degrees or perpendicular to the object

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							

Observation Checklist

Assessment Task 1		Description of Assessment Task 1 sketch orthographic projection in 1 st angle of projection as per instruction given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Draw plan view in 1 st angle of Projection by orthographic projection.			
2.	Draw top view in 1 st angle of Projection by orthographic projection			
3.	Draw front view in 1 st angle of Projection by orthographic projection.			
4.	Draw side view in 1 st angle of Projection by orthographic projection.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 2		Description of Assessment Task 2 sketch orthographic projection in 3 rd angle of projection as per instruction given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Draw plan view in 3 rd angle of projection by orthographic projection.			
2.	Draw top view in 3 rd angle of projection by orthographic projection.			
3.	Draw front view in 3 rd angle of projection by orthographic projection.			
4.	Draw side view in 3 rd angle of projection by orthographic projection.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 3		Description of Assessment Task 3		
		sketch oblique view drawing as per instruction given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Draw Boundaries lines as per standards.			
2.	Make title bar			
3.	Divide the sheets in equal parts			
4.	Draw the oblique view of the given object at receding axis of 30 degree or 45 degrees.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 4		Description of Assessment Task 4		
		sketch oblique view drawing as per instruction given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Draw plan view of simple bearing			
2.	Draw front view of simple bearing			
3.	Draw side view of simple bearing			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 5		Description of Assessment Task 5		
		construct multi view drawing of open bearing as per instruction given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Divide the sheets in equal parts.			
2.	Draw plan view of open bearing			
3.	Draw front view of open bearing			
4.	Draw side view of open bearing			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 6		Description of Assessment Task 6		
		sketch followings as per instruction given by assessor.: ✓ Prism ✓ Cone ✓ Pyramid		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Sketch prism			
2.	Start with a horizontal oval			
3.	Draw the two sides of a triangle which meets at a common point			
4.	Sketch pyramid			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 7		Description of Assessment Task7		
		sketch followings as per instruction given by assessor.: ✓ Full section ✓ half section ✓ offset section ✓ Broken section ✓ Rotated/revolved section		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Draw the cutting plane line which passes fully through the object/part			
2.	Draw the section-lined areas which are portions that have been in actual contact with the cutting-plane			
3.	Draw the cutting-plane line which cuts halfway through the part/object			
4.	Remove one quarter (1/4 th) of the material Draw the object/part			
5.	Draw offset Section views by bend the cutting plane at right angles to pass through the desired internal features			
6.	Draw the object/part in an orthographic view			
7.	Remove a small amount of material to show the interior details (without using a cutting-plane line)			
8.	Draw the object			
9.	Show a cross-section of an area turned 90 degrees or perpendicular to the object			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Knowledge Assessment

Title of Qualification: National Certificate of level 2 in Computer Aided Design & Manufacturing (CAD/CAM (Junior Draftsman)	CS Code:	Level: 2	Version: 01
Competency Standard Title: Construct multi-view drawings (Sectioning)	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.
------------------------	--

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:

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. What is the position of top view in 1 st angle of projection?	
2. What is the position of right-side view in 3 rd angle of projection?	
3. Define offset sections?	

Assessment Evidence Guide

For

“Junior Draftsman in CAD/CAM”

Level-2

Develop 2D Drawings in AutoCAD

(Formative Assessment)



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Certificate of level 2 in Computer Aided Design & Manufacturing (CAD/CAM (Junior Draftsman)	CS Code:	Level: 2	Version: 01
Competency Standard Title: Develop 2D Drawings in AutoCAD Follow safety rules at Site Perform Basic Communication Skills	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 style="padding-left: 40px;">Assessment Task 1: Candidate is required to prepare Set of 2D Drawings including Plan, working plan, section, elevation, legend, schedule, areas & measurements in AutoCAD as per instruction given by assessor.</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> <p>Performance Criteria 1: Setup & save drawing interface for required specifications.</p> <p>Performance Criteria 2: Setup user interface settings for required specifications.</p> <p>Performance Criteria 3: Create 2D objects with given measurements.</p> <p>Performance Criteria 4: Edit 2D Objects to meet set standards.</p> <p>Performance Criteria 5: Develop 2D Drawing with given project specification and measurements.</p> <p>Performance Criteria 6: Plot drawing on scale according to required size & orientation.</p> <p>Performance Criteria 7: Report unsafe condition to immediate supervisor (shift position)</p> <p>Performance Criteria 8: Carry out the instructions of the supervisor</p>

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)							

Observation Checklist

Assessment Task 1	Description of Assessment Task 1 prepare set of 2D Drawings including Plan, working plan, section, elevation, legend, schedule, areas & measurements in AutoCAD as per instruction given by assessor.		
During the practical assessment, candidate demonstrated the following:	Yes	No	Remarks
1. Setup & save drawing interface for required specifications.			
2. Setup user interface settings for required specifications.			
3. Create 2D objects with given measurements.			
4. Edit 2D Objects to meet set standards.			
5. Develop 2D Drawing with given project specification and measurements.			
6. Plot drawing on scale according to required size & orientation.			
7. Report unsafe condition to immediate supervisor (shift position)			
8. Carry out the instructions of the supervisor			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>	

Knowledge Assessment

Title of Qualification: National Certificate of level 2 in Computer Aided Design & Manufacturing (CAD/CAM (Junior Draftsman))	CS Code:	Level: 2	Version: 01
Competency Standard Title: Develop 2D Drawings in AutoCAD Follow safety rules at Site Perform Basic Communication Skills	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.
------------------------	--

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:

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. What is short key for draw a circle?	
2. What is hatch?	
3. What is layer manger?	
4. Define hazards?	

Assessment Evidence Guide

For

**“Junior Draftsman in
CAD/CAM”**

Level-2

Perform Basic Computer Operations

(Formative Assessment)



**National Vocational & Technical
Training Commission**

Instruction Sheet for the Candidate

Title of Qualification: National Certificate of level 2 in Computer Aided Design & Manufacturing (CAD/CAM (Junior Draftsman)	CS Code:	Level: 2	Version: 01
Competency Standard Title: Perform Basic Computer Operations Follow safety rules at Site Perform Basic Communication Skills	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 install MS Office application and prepare a formatted document using MS word, specified by assessor.</p> <p>Assessment Task 2: Candidate is required to prepare a presentation in Power Point, specified by assessor.</p> <p>Assessment Task 3: Candidate is required to prepare a spreadsheet in MS Excel, specified by assessor.</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> <p>Performance Criteria 1: Install drivers and applications according to the software specification</p> <p>Performance Criteria 2: Troubleshoot applications to trace and fix faults in a specific application to bring it in a running condition</p> <p>Performance Criteria 3: Format Word Document according to given requirements.</p> <p>Performance Criteria 4: Print Word Documents according to requirements.</p> <p>Performance Criteria 5: Carry out the instructions of the supervisor</p>

	<p>Assessment Task 2</p> <p>Performance Criteria 1: Insert Slides with different Layouts according to requirements of presentation.</p> <p>Performance Criteria 2: Insert text, tables, images, etc. according to the requirement.</p> <p>Performance Criteria 3: Apply a set of effects to animate the slide according to requirement.</p> <p>Performance Criteria 4: Apply Slide Transitions on Slides according to requirement.</p> <p>Performance Criteria 5: Apply Sound Effects on Objects/text/images according to requirement.</p>
	<p>Assessment Task 3</p> <p>Performance Criteria 1: Develop a worksheet as per given data.</p> <p>Performance Criteria 2: Format the worksheet according to given criteria.</p> <p>Performance Criteria 3: Apply Formulas according to the requirement.</p> <p>Performance Criteria 4: Generate Charts/Graphs according to the given data.</p> <p>Performance Criteria 5: Print Worksheet according to requirements.</p>

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							

Observation Checklist

Assessment Task 1		Description of Assessment Task 1		
		install MS Office application and prepare a formatted document using MS word, specified by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Install drivers and applications according to the software specification			
2.	Troubleshoot applications to trace and fix faults in a specific application to bring it in a running condition			
3.	Format Word Document according to given requirements.			
4.	Print Word Documents according to requirements.			
5.	Carry out the instructions of the supervisor			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 2		Description of Assessment Task 2		
		prepare a presentation in Power Point, specified by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Insert Slides with different Layouts according to requirements of presentation.			
2.	Insert text, tables, images, etc. according to the requirement.			
3.	Apply a set of effects to animate the slide according to requirement.			
4.	Apply Slide Transitions on Slides according to requirement.			
5.	Apply Sound Effects on Objects/text/images according to requirement.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 3		Description of Assessment Task 3		
		prepare a spreadsheet in MS Excel, specified by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Develop a worksheet as per given data.			
2.	Format the worksheet according to given criteria.			
3.	Apply Formulas according to the requirement.			
4.	Generate Charts/Graphs according to the given data.			
5.	Print Worksheet according to requirements.			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Knowledge Assessment

Title of Qualification: National Certificate of level 2 in Computer Aided Design & Manufacturing (CAD/CAM (Junior Draftsman))	CS Code:	Level: 2	Version: 01
Competency Standard Title: Perform Basic Computer Operations Follow safety rules at Site Perform Basic Communication Skills	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.
------------------------	--

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:

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
1. Ctrl+Esc	
2. Ctrl+Shift+Esc	
3. Ctrl+X in MS word	
4. Ctrl+V in MS word	
5. Ctrl+A in MS word	

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)

6. What is MS Excel spreadsheet?

7. What are the four uses of Microsoft Power Point?

8. What are the benefits of PowerPoint?

9. What are PPE requirements?