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AUTOMOTIVE PARTS PRODUCTION MACHINE OPERATOR



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ASSESSMENT PACKAGE
National Vocational Certificate Level 4

Version 1 - November, 2019



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AUTOMOTIVE PARTS PRODUCTION MACHINE OPERATOR



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ASSESSMENT PACKAGE
National Vocational Certificate Level 4

Version 1 - November, 2019

Title of Qualification: National Vocational Certificate Level-4 in Automotive parts production machine operator	CS Code:	Level: 4	Version: 1
Integrated Assessment for Automotive parts production machine operator Level-3: Develop plastic part (injection moulding), hot forging part, die casting part and gear of automotive.	Assessment Date (DD/MM/YY): 00/00/0000		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	<p>To meet this standard you are required to complete the following tasks within six hours timeframe:</p> <ol style="list-style-type: none"> 1. Assessment Task 1: Perform injection moulding operation to develop plastic part. 2. Assessment Task 2: Perform hot forging operation to develop sprocket part. 3. Assessment Task 3: Perform die casting operation to develop battery terminal. 4. Assessment Task 4: Perform gear hobbing operation to develop gear. <p>And complete:</p> <ol style="list-style-type: none"> 1. Knowledge assessment test (Written) 2. Portfolios at the time of assessment
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1: Perform injection moulding operation to develop plastic part.</p> <p>Performance criteria 1: Select machine, material and tools as per job specification.</p> <p>Performance criteria 2: Set parameters as per job specification.</p> <p>Performance criteria 3: Operate the machine.</p> <p>Performance criteria 4: Perform inspection of final product part.</p> <p>Performance criteria 5: Establish and maintain the occupational health and safety system.</p> <hr/> <p>Assessment Task 2: Perform hot forging operation to develop sprocket part.</p> <p>Performance criteria 1: Select machine, material and tools as per job specification.</p> <p>Performance criteria 2: Set parameters as per job specification.</p> <p>Performance criteria 3: Operate the machine.</p> <p>Performance criteria 4: Perform inspection of final product part.</p> <p>Performance criteria 5: Establish and maintain the occupational health and safety system.</p>

	<p>Assessment Task 3: Perform die casting operation to develop battery terminal.</p> <p>Performance criteria 1: Select machine, material and tools as per job specification. Performance criteria 2: Set parameters as per job specification. Performance criteria 3: Operate the machine. Performance criteria 4: Perform inspection of final product part. Performance criteria 5: Establish and maintain the occupational health and safety system.</p>
	<p>Assessment Task 4: Perform gear hobbing operation to develop gear.</p> <p>Performance criteria 1: Select machine, material and tools as per job specification. Performance criteria 2: Calculate feed and speed according to tools and job material. Performance criteria 3: Set tool and job on designated post. Performance criteria 4: Set parameters of machine as per job requirement.</p> <p>Performance criteria 5: Perform gear hobbing operation. Performance criteria 6: Perform inspection of final product part. Performance criteria 7: Establish and maintain the occupational health and safety system.</p>
	<p>Portfolios required at the time of assessment (if any) for</p> <p><u>Performance criteria 1 for the evaluation of portfolio:</u> Diary log of practical work for the injection moulding for plastic product part. <u>Performance criteria 2 for the evaluation of portfolio:</u> Diary log of practical work for the hot forging for sprocket part. <u>Performance criteria 3 for the evaluation of portfolio:</u> Diary log of practical work for the die casting for battery terminal. <u>Performance criteria 4 for the evaluation of portfolio:</u> Diary log of practical work for gear hobbing for gear.</p>

Continued on following page

Assessment Task 2		Description of assessment task 2 Perform hot forging operation to develop sprocket part.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Select machine, material and tools as per job specification.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Set parameters as per job specification.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Operate the machine.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Perform inspection of final product part.	<input type="checkbox"/>	<input type="checkbox"/>	
5	Establish and maintain the occupational health and safety system	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 3		Description of assessment task 3 Perform die casting operation to develop battery terminal.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Select machine, material and tools as per job specification.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Set parameters as per job specification.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Operate the machine.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Perform inspection of final product part.	<input type="checkbox"/>	<input type="checkbox"/>	
5	Establish and maintain the occupational health and safety system.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 4		Description of assessment task 4 Perform gear hobbing operation to develop gear.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Select machine, material and tools as per job specification.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Calculate feed and speed according to tools and job material.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Set tool and job on designated post.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Set parameters of machine as per job requirement.	<input type="checkbox"/>	<input type="checkbox"/>	
5	Perform gear hobbing operation.	<input type="checkbox"/>	<input type="checkbox"/>	
6	Perform inspection of final product part.	<input type="checkbox"/>	<input type="checkbox"/>	
7	Establish and maintain the occupational health and safety system.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Portfolio(if any)		Description of portfolio Diary log of practical work		
Current <input type="checkbox"/>	Sufficient <input type="checkbox"/>	Authentic <input type="checkbox"/>	Valid <input type="checkbox"/>	Reliable <input type="checkbox"/>
Portfolio meet the following performance standards:		Yes	No	Remarks
1	<u>Performance criteria 1 for the evaluation of portfolio:</u> Diary log of practical work for the injection moulding for plastic product part.	<input type="checkbox"/>	<input type="checkbox"/>	
2	<u>Performance criteria 2 for the evaluation of portfolio:</u> Diary log of practical work for the hot forging for sprocket part.	<input type="checkbox"/>	<input type="checkbox"/>	
3	<u>Performance criteria 3 for the evaluation of portfolio:</u> Diary log of practical work for the die casting for battery terminal.	<input type="checkbox"/>	<input type="checkbox"/>	
4	<u>Performance criteria 4 for the evaluation of portfolio:</u> Diary log of practical work for the gear hobbing for gear.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Title of Qualification: National Vocational Certificate Level-4 Automotive parts production machine operator	CS Code:	Level: 4	Version: 01
Competency Standard Title: Conduct moulding and extrusion operation.	Assessment Date (DD/MM/YY): 00/00/0000		

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: Prepare for moulding and extrusion specified by your assessor correctly using proper method.</p> <p>Assessment Task 2: Conduct pre-operational checks on machine specified by your assessor correctly.</p> <p>Assessment Task 3: Prepare moulds (Injection, Compression, blow, rubber injection, PU) specified by your assessor correctly using proper method.</p> <p>Assessment Task 4: Prepare die specified by your assessor correctly using proper method.</p> <p>Assessment Task 5: Operate injection molding machine specified by your assessor correctly on required standard.</p> <p>Assessment Task 6: Operate rubber compression moulding machine specified by your assessor correctly on required standard.</p> <p>Assessment Task 7: Operate blow moulding machine specified by your assessor correctly on required standard.</p> <p>Assessment Task 8: Operate rubber injection moulding machine specified by your assessor correctly on required standard.</p> <p>Assessment Task 9: Operate polyurethane moulding machine specified by your assessor correctly on required standard.</p> <p>Assessment Task 10: Operate extrusion machine specified by your assessor correctly on required standard.</p> <p>Assessment Task 11: Inspect final product specified by your assessor correctly on required standard.</p> <p>Assessment Task 12: Perform workplace cleaning and maintenance specified by your assessor correctly as per organization standard.</p> <p>And complete:</p> <ol style="list-style-type: none"> 5. Knowledge assessment test (Written) 6. Portfolios at the time of assessment
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: Arrange material as per drawing or process sheet.</p> <p>Performance Criteria 2: Select the tools and equipment.</p> <p>Performance Criteria 3: Set machine as per job specification.</p>

Assessment Task 2

Performance Criteria 1: Inspect all electrical connections.

Performance Criteria 2: Check all mechanical fitting and joints.

Performance Criteria 3: Check operation of emergency switches.

Performance Criteria 4: Check and maintain correct machine lubricant level.

Performance Criteria 5: Check chillier temperature.

Performance Criteria 6: Check function by operate machine manually.

Assessment Task 3

Performance Criteria 1: Place the mould on machine (Moulding/Extrusion).

Performance Criteria 2: Align the mould on machine.

Performance Criteria 3: Operate machine manually and match the upper and lower mould.

Performance Criteria 4: Clamp the mould.

Performance Criteria 5: Install the cooling water lines on mould.

Performance Criteria 6: Set the parameters.

Performance Criteria 7: Perform the trial of mould to verify the operation

Assessment Task 4

Performance Criteria 1: Place the die on machine with lifting equipment.

Performance Criteria 2: Align the die on machine.

Performance Criteria 3: Operate machine manually and match the upper and lower dies.

Performance Criteria 4: Clamp the die.

Performance Criteria 5: Set parameters

Performance Criteria 6: Perform the trial of die to verify the operation.

Assessment Task 5

Performance Criteria 1: Set all parameters.

Performance Criteria 2: Proceed with operation.

Performance Criteria 3: Monitor operation to ensure compliance with job requirements.

Assessment Task 6

Performance Criteria 1: Perform degassing on mould.

Performance Criteria 2: Set all parameters.

Performance Criteria 3: Proceed with operation.

Performance Criteria 4: Monitor operation to ensure compliance with job requirements.

Assessment Task 7

Performance Criteria 1: Set all Parameters.

Performance Criteria 2: Proceed with operation.

Performance Criteria 3: Monitor operation to ensure compliance with job requirements.

Assessment Task 8

Performance Criteria 1: Perform degassing on mould.

Performance Criteria 2: Set all parameters.

Performance Criteria 3: Proceed with operation.

Performance Criteria 4: Monitor operation to ensure compliance with job requirements.

Assessment Task 9

Performance Criteria 1: Mix the raw material polyurethane part A (Polyols) in the drum of mixing machine.

Performance Criteria 2: Mix the raw material polyurethane part B (Isocyanates) in the drum of mixing machine.

Performance Criteria 3: Fill the tank of polyurethane machine part A (Polyols) by using the pump.

Performance Criteria 4: Fill the tank of polyurethane machine part B (isocyanates) by using the pump.

Performance Criteria 5: Fasten the machine tank cover to avoid the moisture.

Performance Criteria 6: Circulate the water on machine tank to maintain the required temperature of raw material.

Performance Criteria 7: Set the water temperature according to the weather condition.

Performance Criteria 8: Set all parameters (Ratio A & B).

Performance Criteria 9: Operate the material circulating pump A (Polyols) and B (Isocyanates) on operating position.

Performance Criteria 10: Fill the de-flashing tank by hand and ensure safety.

Performance Criteria 11: Set the die on platform.

Performance Criteria 12: Proceed with operation.

Performance Criteria 13: Monitor operation to ensure compliance with job requirements.

Assessment Task 10

Performance Criteria 1: Set all parameters.

Performance Criteria 2: Fix the nozzle in extruder according to job material.

Performance Criteria 3: Fill the water tank.

Performance Criteria 4: Set the cutting distance of material as per requirement.

Performance Criteria 5: Proceed with operation.

Performance Criteria 6: Monitor operation to ensure compliance with job requirements.

Assessment Task 11

Performance Criteria 1: Perform visual inspection of defects.

Performance Criteria 2: Check dimensionally.

Performance Criteria 3: Check by go no go gauge.

Performance Criteria 4: Complete inspection report.

Assessment Task 12

Performance Criteria 1: Maintain all check sheets and work instructions on the machine.

Performance Criteria 2: Maintain the tools and equipment.

Performance Criteria 3: Keep tools and equipment at appropriate place.

Performance Criteria 4: Perform cleaning of machine, mould/die and floor.

Performance Criteria 5: Apply anti-rust spray/cleaning agent.

Performance Criteria 6: Perform lubrication.

Performance Criteria 7: Transfer wastage material into the wastage area.

Performance Criteria 8: Return excess material to store.

Portfolios required at the time of assessment (if any) for

Performance criteria 1 for the evaluation of portfolio: Diary log of practical work for preparation for moulding and extrusion.

Performance criteria 2 for the evaluation of portfolio: Diary log of practical work for conduct pre-operational checks on machine.

Performance criteria 3 for the evaluation of portfolio: Diary log of practical work for preparation moulds (Injection, Compression, blow, rubber injection,PU).

Performance criteria 4 for the evaluation of portfolio: Diary log of practical work for preparation of die.

Performance criteria 5 for the evaluation of portfolio: Diary log of practical work for operate of injection molding machine.

Performance criteria 6 for the evaluation of portfolio: Diary log of practical work for operate of rubber compression mounding machine.

Performance criteria 7 for the evaluation of portfolio: Diary log of practical work for operate of blow moulding machine.

Performance criteria 8 for the evaluation of portfolio: Diary log of practical work for operate of rubber injection mounding machine.

Performance criteria 9 for the evaluation of portfolio: Diary log of practical work for operate of polyurethane mounding machine.

Performance criteria 10 for the evaluation of portfolio: Diary log of practical work for operate of extrusion machine.

Performance criteria 11 for the evaluation of portfolio: Diary log of practical work for Inspection of final product.

Performance criteria 12 for the evaluation of portfolio: Diary log of practical work for perform workplace cleaning and maintenance.

Continued on following page

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			✓			<input type="checkbox"/>	<input type="checkbox"/>
Knowledge Assessment	✓	✓				<input type="checkbox"/>	<input type="checkbox"/>
Other Requirement				✓		<input type="checkbox"/>	<input type="checkbox"/>
Each Assessment Task (with performance criteria)							
Assessment Task 1			Description of assessment task 1 Prepare for moulding and extrusion specified by your assessor correctly using proper method.				
During the practical assessment, candidate demonstrated the following:					Yes	No	Remarks
1	Arrange material as per drawing or process sheet.				<input type="checkbox"/>	<input type="checkbox"/>	
2	Select the tools and equipment.				<input type="checkbox"/>	<input type="checkbox"/>	
3	Set machine as per job specification.				<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>				Not Yet Competent <input type="checkbox"/>			

Assessment Task 2		Description of assessment task 2 Conduct pre-operational checks on machine specified by your assessor correctly.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Inspect all electrical connections.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Check all mechanical fitting and joints.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Check operation of emergency switches.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Check machine lubricant.	<input type="checkbox"/>	<input type="checkbox"/>	
5	Check chillier temperature.	<input type="checkbox"/>	<input type="checkbox"/>	
6	Check function by operate machine manually.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 3		Description of assessment task 3 Prepare moulds (Injection, Compression, blow, rubber injection,PU) specified by your assessor correctly using proper method.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Place the mould on machine (Moulding/Extrusion).	<input type="checkbox"/>	<input type="checkbox"/>	
2	Align the mould on machine.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Operate machine manually and match the upper and lower mould.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Clamp the mould.	<input type="checkbox"/>	<input type="checkbox"/>	
5	Install the cooling water lines on mould.	<input type="checkbox"/>	<input type="checkbox"/>	
6	Set the parameters.	<input type="checkbox"/>	<input type="checkbox"/>	
7	Perform the trial of mould to verify the operation.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 4		Description of assessment task 4 Prepare die specified by your assessor correctly using proper method.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Place the die on machine with lifting equipment.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Align the die on machine.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Operate machine manually and match the upper and lower dies.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Clamp the die.	<input type="checkbox"/>	<input type="checkbox"/>	
5	Set parameters	<input type="checkbox"/>	<input type="checkbox"/>	
6	Perform the trial of die to verify the operation.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Each Assessment Task (with performance criteria)				
Assessment Task 5		Description of assessment task 5 Operate injection molding machine specified by your assessor correctly on required standard.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Set all parameters.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Proceed with operation.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Monitor operation to ensure compliance with job requirements.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Each Assessment Task (with performance criteria)					
Assessment Task 6		Description of assessment task 6 Operate rubber compression mounding machine specified by your assessor correctly on required standard.			
During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks
1	Perform degassing on mould.	<input type="checkbox"/>	<input type="checkbox"/>		
2	Set all parameters.	<input type="checkbox"/>	<input type="checkbox"/>		
3	Proceed with operation.	<input type="checkbox"/>	<input type="checkbox"/>		
4	Monitor operation to ensure compliance with job requirements.	<input type="checkbox"/>	<input type="checkbox"/>		
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>			

Each Assessment Task (with performance criteria)					
Assessment Task 7		Description of assessment task 7 Operate blow moulding machine specified by your assessor correctly on required standard.			
During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks
1	Set all Parameters.	<input type="checkbox"/>	<input type="checkbox"/>		
2	Proceed with operation.	<input type="checkbox"/>	<input type="checkbox"/>		
3	Monitor operation to ensure compliance with job requirements.	<input type="checkbox"/>	<input type="checkbox"/>		
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>			

Each Assessment Task (with performance criteria)					
Assessment Task 8		Description of assessment task 8 Operate rubber injection mounding machine specified by your assessor correctly on required standard.			
During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks
1	Perform degassing on mould.	<input type="checkbox"/>	<input type="checkbox"/>		
2	Set all parameters.	<input type="checkbox"/>	<input type="checkbox"/>		
3	Proceed with operation.	<input type="checkbox"/>	<input type="checkbox"/>		
4	Monitor operation to ensure compliance with job requirements.	<input type="checkbox"/>	<input type="checkbox"/>		
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>			

Each Assessment Task (with performance criteria)				
Assessment Task 9		Description of assessment task 9		
		Operate polyurethane mounding machine specified by your assessor correctly on required standard.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Mix the raw material polyurethane part A (Polyols) in the drum of mixing machine.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Mix the raw material polyurethane part B (Isocyanates) in the drum of mixing machine.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Fill the tank of polyurethane machine part A (Polyols) by using the pump.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Fill the tank of polyurethane machine part B (isocyanates) by using the pump.	<input type="checkbox"/>	<input type="checkbox"/>	
5	Fasten the machine tank cover to avoid the moisture.	<input type="checkbox"/>	<input type="checkbox"/>	
6	Circulate the water on machine tank to maintain the required temperature of raw material.	<input type="checkbox"/>	<input type="checkbox"/>	
7	Set the water temperature according to the weather condition.	<input type="checkbox"/>	<input type="checkbox"/>	
8	Set all parameters (Ratio A & B).	<input type="checkbox"/>	<input type="checkbox"/>	
9	Operate the material circulating pump A (Polyols) and B (Isocyanates) on operating position.	<input type="checkbox"/>	<input type="checkbox"/>	
10	Fill the de-flashing tank by hand and ensure safety.	<input type="checkbox"/>	<input type="checkbox"/>	
11	Set the die on platform.	<input type="checkbox"/>	<input type="checkbox"/>	
12	Proceed with operation.	<input type="checkbox"/>	<input type="checkbox"/>	
13	Monitor operation to ensure compliance with job requirements.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Each Assessment Task (with performance criteria)				
Assessment Task 10		Description of assessment task 10 Operate extrusion machine specified by your assessor correctly on required standard.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Set all parameters.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Fix the nozzle in extruder according to job material.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Fill the water tank.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Set the cutting distance of material as per requirement.	<input type="checkbox"/>	<input type="checkbox"/>	
5	Proceed with operation.	<input type="checkbox"/>	<input type="checkbox"/>	
6	Monitor operation to ensure compliance with job requirements.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Each Assessment Task (with performance criteria)				
Assessment Task 11		Description of assessment task 11 Inspect final product specified by your assessor correctly on required standard.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Perform visual inspection of defects.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Check dimensionally.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Check by go no go gauge.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Complete inspection report.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Each Assessment Task (with performance criteria)				
Assessment Task 12		Description of assessment task 12		
		Perform workplace cleaning and maintenance specified by your assessor correctly as per organization standard.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Maintain all check sheets and work instructions on the machine.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Maintain the tools and equipment.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Keep tools and equipment at appropriate place.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Perform cleaning of machine, mould/die and floor.	<input type="checkbox"/>	<input type="checkbox"/>	
5	Apply anti-rust spray/cleaning agent.	<input type="checkbox"/>	<input type="checkbox"/>	
6	Perform lubrication.	<input type="checkbox"/>	<input type="checkbox"/>	
7	Transfer wastage material into the wastage area.	<input type="checkbox"/>	<input type="checkbox"/>	
8	Return excess material to store.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Portfolio(if any)		Description of portfolio Diary log of practical work			
Current <input type="checkbox"/>		Sufficient <input type="checkbox"/>	Authentic <input type="checkbox"/>	Valid <input type="checkbox"/>	Reliable <input type="checkbox"/>
Portfolio meet the following performance standards:		Yes	No	Remarks	
1	<u>Performance criteria 1 for the evaluation of portfolio:</u> Diary log of practical work for preparation for moulding and extrusion.	<input type="checkbox"/>	<input type="checkbox"/>		
2	<u>Performance criteria 2 for the evaluation of portfolio:</u> Diary log of practical work for conduct pre-operational checks on machine.	<input type="checkbox"/>	<input type="checkbox"/>		
3	<u>Performance criteria 3 for the evaluation of portfolio:</u> Diary log of practical work for Preparation moulds (Injection, Compression, blow, rubber injection,PU).	<input type="checkbox"/>	<input type="checkbox"/>		
4	<u>Performance criteria 4 for the evaluation of portfolio:</u> Diary log of practical work for preparation of die.	<input type="checkbox"/>	<input type="checkbox"/>		
5	<u>Performance criteria 5 for the evaluation of portfolio:</u> Diary log of practical work for operate of injection molding machine.	<input type="checkbox"/>	<input type="checkbox"/>		
6	<u>Performance criteria 6 for the evaluation of portfolio:</u> Diary log of practical work for operate of rubber compression mounding machine.	<input type="checkbox"/>	<input type="checkbox"/>		
7	<u>Performance criteria 7 for the evaluation of portfolio:</u> Diary log of practical work for operate of blow moulding machine.	<input type="checkbox"/>	<input type="checkbox"/>		
8	<u>Performance criteria 8 for the evaluation of portfolio:</u> Diary log of practical work for operate of rubber injection mounding machine.	<input type="checkbox"/>	<input type="checkbox"/>		
9	<u>Performance criteria 9 for the evaluation of portfolio:</u> Diary log of practical work for operate of polyurethane mounding machine.	<input type="checkbox"/>	<input type="checkbox"/>		
10	<u>Performance criteria 10 for the evaluation of portfolio:</u> Diary log of practical work for operate of extrusion machine.	<input type="checkbox"/>	<input type="checkbox"/>		
11	<u>Performance criteria 11 for the evaluation of portfolio:</u> Diary log of practical work for Inspection of final product.	<input type="checkbox"/>	<input type="checkbox"/>		
12	<u>Performance criteria 12 for the evaluation of portfolio:</u> Diary log of practical work for perform workplace cleaning and maintenance.	<input type="checkbox"/>	<input type="checkbox"/>		
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>			

Title of Qualification: National Vocational Certificate Level-4 Automotive parts production machine operator	CS Code:	Level: 4	Version: 01
Competency Standard Title: Perform hot forging operation	Assessment Date (DD/MM/YY): 00/00/0000		

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: Prepare for hot press forging specified by your assessor correctly using proper method.</p> <p>Assessment Task 2: Conduct pre-operational checks on machine specified by your assessor correctly.</p> <p>Assessment Task 3: Prepare mould/die specified by your assessor correctly using proper method.</p> <p>Assessment Task 4: Operate machine specified by your assessor correctly on required standard.</p> <p>Assessment Task 5: Inspect final product specified by your assessor correctly on required standard.</p> <p>Assessment Task 6: Perform workplace cleaning and maintenance specified by your assessor correctly as per organization standard.</p> <p>And complete:</p> <p>7. Knowledge assessment test (Written) 8. Portfolios at the time of assessment</p>
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p><u>Assessment Task 1</u></p> <p>Performance Criteria 1: Arrange material as per drawing or process sheet. Performance Criteria 2: Select tools and equipment. Performance Criteria 3: Set machine as per job specification.</p> <p><u>Assessment Task 2</u></p> <p>Performance Criteria 1: Inspect all electrical connection. Performance Criteria 2: Check all mechanical fitting and joints. Performance Criteria 3: Check operation of emergency switches. Performance Criteria 4: Check air connections. Performance Criteria 5: Check the control panel button. Performance Criteria 6: Check oil tank for proper lubrication. Performance Criteria 7: Check the manual stroke for proper ram working.</p>

	<p><u>Assessment Task 3</u> Performance Criteria 1: Install mould/die with lifting equipment. Performance Criteria 2: Set all parameters. Performance Criteria 3: Turn on gas burner for pre-heating mould/die. Performance Criteria 4: Maintain the idle temperature of mould/die.</p>
	<p><u>Assessment Task 4</u> Performance Criteria 1: Release the mult/blank from induction heater. Performance Criteria 2: Adjust mult/blank on mould/die. Performance Criteria 3: Proceed with operation. Performance Criteria 4: Monitor operation to ensure compliance with job requirements.</p>
	<p><u>Assessment Task 5</u> Performance Criteria 1: Perform visual inspection of defects. Performance Criteria 2: Check dimensionally. Performance Criteria 3: Inspect the part for non-filling. Performance Criteria 4: Complete inspection report.</p>
	<p><u>Assessment Task 6</u> Performance Criteria 1: Maintain all check sheets and work instruction on machine. Performance Criteria 2: Perform cleaning of mould, machine and floor. Performance Criteria 3: Apply anti-rust spray/cleaning agent. Performance Criteria 4: Perform lubrication on slides and mould/die. Performance Criteria 5: Maintain tools and equipment. Performance Criteria 6: Keep tools and equipment at appropriate place. Performance Criteria 7: Transfer wastage material in to the.</p>
	<p>Portfolios required at the time of assessment (if any) for <u>Performance criteria 1 for the evaluation of portfolio:</u> Diary log of practical work for preparation for hot press forging. <u>Performance criteria 2 for the evaluation of portfolio:</u> Diary log of practical work for conduct pre-operational checks on machine. <u>Performance criteria 3 for the evaluation of portfolio:</u> Diary log of practical work for preparation of mould/die. <u>Performance criteria 4 for the evaluation of portfolio:</u> Diary log of practical work for operate of machine. <u>Performance criteria 5 for the evaluation of portfolio:</u> Diary log of practical work for inspection of final product. <u>Performance criteria 6 for the evaluation of portfolio:</u> Diary log of practical work for perform workplace cleaning and maintenance.</p>

Continued on following page

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			✓			<input type="checkbox"/>	<input type="checkbox"/>
Knowledge Assessment	✓	✓				<input type="checkbox"/>	<input type="checkbox"/>
Other Requirement				✓		<input type="checkbox"/>	<input type="checkbox"/>
Each Assessment Task (with performance criteria)							
Assessment Task 1			Description of assessment task 1 Prepare for hot press forging specified by your assessor correctly using proper method.				
During the practical assessment, candidate demonstrated the following:					Yes	No	Remarks
1	Arrange material as per drawing or process sheet.				<input type="checkbox"/>	<input type="checkbox"/>	
2	Select tools and equipment.				<input type="checkbox"/>	<input type="checkbox"/>	
3	Set machine as per job specification.				<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>				Not Yet Competent <input type="checkbox"/>			

Assessment Task 2		Description of assessment task 2 Conduct pre-operational checks on machine specified by your assessor correctly.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Inspect all electrical connection.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Check all mechanical fitting and joints.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Check operation of emergency switches.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Check air connections.	<input type="checkbox"/>	<input type="checkbox"/>	
5	Check the control panel button.	<input type="checkbox"/>	<input type="checkbox"/>	
6	Check oil tank for proper lubrication.	<input type="checkbox"/>	<input type="checkbox"/>	
7	Check the manual stroke for proper ram working.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 3		Description of assessment task 3 Prepare mould/die specified by your assessor correctly using proper method.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Install mould/die with lifting equipment.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Set all parameters.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Turn on gas burner for pre-heating mould/die.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Maintain the idle temperature of mould/die.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 4		Description of assessment task 4 Operate machine specified by your assessor correctly on required standard.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Release the mult/blank from induction heater.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Adjust mult/blank on mould/die.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Proceed with operation.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Monitor operation to ensure compliance with job requirements.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 5		Description of assessment task 5 Inspect final product specified by your assessor correctly on required standard.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Perform visual inspection of defects.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Check dimensionally.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Inspect the part for non-filling.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Complete inspection report.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 6		Description of assessment task 6 Perform workplace cleaning and maintenance specified by your assessor correctly as per organization standard.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Maintain all check sheets and work instruction on machine.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Perform cleaning of mould, machine and floor.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Apply anti-rust spray/cleaning agent.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Perform lubrication on slides and mould/die.	<input type="checkbox"/>	<input type="checkbox"/>	
5	Maintain tools and equipment.	<input type="checkbox"/>	<input type="checkbox"/>	
6	Keep tools and equipment at appropriate place.	<input type="checkbox"/>	<input type="checkbox"/>	
7	Transfer wastage material in to the	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Portfolio(if any)		Description of portfolio Diary log of practical work			
Current <input type="checkbox"/>		Sufficient <input type="checkbox"/>	Authentic <input type="checkbox"/>	Valid <input type="checkbox"/>	Reliable <input type="checkbox"/>
Portfolio meet the following performance standards:		Yes	No	Remarks	
1	<u>Performance criteria 1 for the evaluation of portfolio:</u> Diary log of practical work for preparation for hot press forging.	<input type="checkbox"/>	<input type="checkbox"/>		
2	<u>Performance criteria 2 for the evaluation of portfolio:</u> Diary log of practical work for conduct pre-operational checks on machine.	<input type="checkbox"/>	<input type="checkbox"/>		
3	<u>Performance criteria 3 for the evaluation of portfolio:</u> Diary log of practical work for preparation of mould/die.	<input type="checkbox"/>	<input type="checkbox"/>		
4	<u>Performance criteria 4 for the evaluation of portfolio:</u> Diary log of practical work for operate of machine.	<input type="checkbox"/>	<input type="checkbox"/>		
5	<u>Performance criteria 5 for the evaluation of portfolio:</u> Diary log of practical work for inspection of final product.	<input type="checkbox"/>	<input type="checkbox"/>		
6	<u>Performance criteria 6 for the evaluation of portfolio:</u> Diary log of practical work for perform workplace cleaning and maintenance.	<input type="checkbox"/>	<input type="checkbox"/>		
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>			

Title of Qualification: National Vocational Certificate Level-4 Automotive parts production machine operator	CS Code:	Level: 4	Version: 01
Competency Standard Title: Perform metal die casting operation	Assessment Date (DD/MM/YY): 00/00/0000		

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: Prepare for die casting specified by your assessor correctly using proper method.</p> <p>Assessment Task 2: Conduct pre-operational checks on machine specified by your assessor correctly.</p> <p>Assessment Task 3: Prepare casting mould specified by your assessor correctly using proper method.</p> <p>Assessment Task 4: Operate machine specified by your assessor correctly on required standard.</p> <p>Assessment Task 5: Inspect final product specified by your assessor correctly on required standard.</p> <p>Assessment Task 6: Perform workplace cleaning and maintenance specified by your assessor correctly as per organization standard.</p> <p>And complete:</p> <p>9. Knowledge assessment test (Written)</p> <p>10. Portfolios at the time of assessment</p>
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p><u>Assessment Task 1</u></p> <p>Performance Criteria 1: Arrange material as per drawing or process sheet.</p> <p>Performance Criteria 2: Select tools and equipment.</p> <p>Performance Criteria 3: Prepare the melting furnace (Crucible).</p> <p>Performance Criteria 3: Set machine as per job specification.</p> <p><u>Assessment Task 2</u></p> <p>Performance Criteria 1: Inspect all electrical connection.</p> <p>Performance Criteria 2: Check all mechanical fitting and joints.</p> <p>Performance Criteria 3: Check operation of emergency switches.</p> <p>Performance Criteria 4: Check the plunger</p> <p>Performance Criteria 5: Check cooling lines.</p> <p>Performance Criteria 6: Check and maintain proper lubrication.</p> <p>Performance Criteria 7: Check air pressure.</p> <p>Performance Criteria 8: Check water connection.</p>

	<p><u>Assessment Task 3</u></p> <p>Performance Criteria 1: Lift mould with lifting equipment.</p> <p>Performance Criteria 2: Place the mould between the mould platen.</p> <p>Performance Criteria 3: Align mould in the centre of platen.</p> <p>Performance Criteria 4: Set cutting part size.</p> <p>Performance Criteria 5: Connect hydraulic and water connection.</p> <p>Performance Criteria 6: Clamp mould with bolts/ hydraulic clamps.</p> <p>Performance Criteria 7: Apply releasing spray/ beads.</p>
	<p><u>Assessment Task 4</u></p> <p>Performance Criteria 1: Set all parameters.</p> <p>Performance Criteria 2: Lift the material with ladle from the holding furnace.</p> <p>Performance Criteria 3: Pour the material in the plunger.</p> <p>Performance Criteria 4: Proceed with operation.</p> <p>Performance Criteria 5: Monitor operation to ensure compliance with job requirements.</p>
	<p><u>Assessment Task 5</u></p> <p>Performance Criteria 1: Perform visual inspection of defects.</p> <p>Performance Criteria 2: Check dimensionally.</p> <p>Performance Criteria 3: Check part on checking fixture.</p> <p>Performance Criteria 4: Complete inspection report.</p>
	<p><u>Assessment Task 6</u></p> <p>Performance Criteria 1: Maintain all check sheets and work instruction on machine.</p> <p>Performance Criteria 2: Perform cleaning of die, machine and floor</p> <p>Performance Criteria 3: Perform lubrication on slides, tie bar and mould.</p> <p>Performance Criteria 4: Apply anti rust spray/cleaning agent.</p> <p>Performance Criteria 5: Maintain tools and equipment.</p> <p>Performance Criteria 6: Keep tools and equipment at appropriate place.</p> <p>Performance Criteria 7: Transfer wastage material in to the wastage area.</p> <p>Performance Criteria 8: Return excess material to store.</p>
	<p>Portfolios required at the time of assessment (if any) for</p> <p><u>Performance criteria 1 for the evaluation of portfolio:</u> Diary log of practical work for preparation for die casting.</p> <p><u>Performance criteria 2 for the evaluation of portfolio:</u> Diary log of practical work for conduct pre-operational checks on machine.</p> <p><u>Performance criteria 3 for the evaluation of portfolio:</u> Diary log of practical work for preparation of casting mould.</p> <p><u>Performance criteria 4 for the evaluation of portfolio:</u> Diary log of practical work for operate of machine.</p> <p><u>Performance criteria 5 for the evaluation of portfolio:</u> Diary log of practical work for inspection of final product.</p> <p><u>Performance criteria 6 for the evaluation of portfolio:</u> Diary log of practical work for perform workplace cleaning and maintenance.</p>

Continued on following page

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			✓			<input type="checkbox"/>	<input type="checkbox"/>
Knowledge Assessment	✓	✓				<input type="checkbox"/>	<input type="checkbox"/>
Other Requirement				✓		<input type="checkbox"/>	<input type="checkbox"/>
Each Assessment Task (with performance criteria)							
Assessment Task 1			Description of assessment task 1 Prepare for die casting specified by your assessor correctly using proper method.				
During the practical assessment, candidate demonstrated the following:					Yes	No	Remarks
1	Arrange material as per drawing or process sheet.				<input type="checkbox"/>	<input type="checkbox"/>	
2	Select tools and equipment.				<input type="checkbox"/>	<input type="checkbox"/>	
3	Prepare the melting furnace (Crucible).				<input type="checkbox"/>	<input type="checkbox"/>	
4	Set machine as per job specification.				<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>				Not Yet Competent <input type="checkbox"/>			

Assessment Task 2		Description of assessment task 2 Conduct pre-operational checks on machine specified by your assessor correctly.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Inspect all electrical connection.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Check all mechanical fitting and joints.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Check operation of emergency switches.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Check the plunger	<input type="checkbox"/>	<input type="checkbox"/>	
5	Check cooling lines.	<input type="checkbox"/>	<input type="checkbox"/>	
6	Check and maintain proper lubrication.	<input type="checkbox"/>	<input type="checkbox"/>	
7	Check air pressure.	<input type="checkbox"/>	<input type="checkbox"/>	
8	Check water connection.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 3		Description of assessment task 3 Prepare casting mould specified by your assessor correctly using proper method.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Lift mould with lifting equipment.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Place the mould between the mould platen.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Align mould in the centre of platen.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Set cutting part size.	<input type="checkbox"/>	<input type="checkbox"/>	
5	Connect hydraulic and water connection.	<input type="checkbox"/>	<input type="checkbox"/>	
6	Clamp mould with bolts/ hydraulic clamps.	<input type="checkbox"/>	<input type="checkbox"/>	
7	Apply releasing spray/ beads.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Each Assessment Task (with performance criteria)				
Assessment Task 4		Description of assessment task 4		
		Operate machine specified by your assessor correctly on required standard.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Set all parameters.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Lift the material with ladle from the holding furnace.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Pour the material in the plunger.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Proceed with operation.	<input type="checkbox"/>	<input type="checkbox"/>	
5	Monitor operation to ensure compliance with job requirements.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Each Assessment Task (with performance criteria)				
Assessment Task 5		Description of assessment task 5		
		Inspect final product specified by your assessor correctly on required standard.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Perform visual inspection of defects.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Check dimensionally.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Check part on checking fixture.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Complete inspection report.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Each Assessment Task (with performance criteria)				
Assessment Task 6		Description of assessment task 6 Perform workplace cleaning and maintenance specified by your assessor correctly as per organization standard.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Maintain all check sheets and work instruction on machine.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Perform cleaning of die, machine and floor	<input type="checkbox"/>	<input type="checkbox"/>	
3	Perform lubrication on slides, tie bar and mould.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Apply anti rust spray/cleaning agent.	<input type="checkbox"/>	<input type="checkbox"/>	
5	Maintain tools and equipment.	<input type="checkbox"/>	<input type="checkbox"/>	
6	Keep tools and equipment at appropriate place.	<input type="checkbox"/>	<input type="checkbox"/>	
7	Transfer wastage material in to the wastage area.	<input type="checkbox"/>	<input type="checkbox"/>	
8	Return excess material to store.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Portfolio(if any)		Description of portfolio Diary log of practical work			
Current <input type="checkbox"/>		Sufficient <input type="checkbox"/>	Authentic <input type="checkbox"/>	Valid <input type="checkbox"/>	Reliable <input type="checkbox"/>
Portfolio meet the following performance standards:		Yes	No	Remarks	
1	<u>Performance criteria 1 for the evaluation of portfolio:</u> Diary log of practical work for preparation for die casting.	<input type="checkbox"/>	<input type="checkbox"/>		
2	<u>Performance criteria 2 for the evaluation of portfolio:</u> Diary log of practical work for conduct pre-operational checks on machine.	<input type="checkbox"/>	<input type="checkbox"/>		
3	<u>Performance criteria 3 for the evaluation of portfolio:</u> Diary log of practical work for preparation of casting mould.	<input type="checkbox"/>	<input type="checkbox"/>		
4	<u>Performance criteria 4 for the evaluation of portfolio:</u> Diary log of practical work for operate of machine.	<input type="checkbox"/>	<input type="checkbox"/>		
5	<u>Performance criteria 5 for the evaluation of portfolio:</u> Diary log of practical work for inspection of final product.	<input type="checkbox"/>	<input type="checkbox"/>		
6	<u>Performance criteria 6 for the evaluation of portfolio:</u> Diary log of practical work for perform workplace cleaning and maintenance.	<input type="checkbox"/>	<input type="checkbox"/>		
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>			

Title of Qualification: National Vocational Certificate Level-4 Automotive parts production machine operator	CS Code:	Level: 4	Version: 01
Competency Standard Title: Perform gear cutting operation	Assessment Date (DD/MM/YY): 00/00/0000		

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: Prepare for gear cutting specified by your assessor correctly using proper method.</p> <p>Assessment Task 2: Conduct pre-operational checks on hobbing machine specified by your assessor correctly.</p> <p>Assessment Task 3: Select tools specified by your assessor correctly.</p> <p>Assessment Task 4: Operate machine specified by your assessor correctly on required standard.</p> <p>Assessment Task 5: Inspect final product specified by your assessor correctly on required standard.</p> <p>Assessment Task 6: Perform workplace cleaning and maintenance specified by your assessor correctly as per organization standard.</p> <p>And complete:</p> <p>11. Knowledge assessment test (Written)</p> <p>12. Portfolios at the time of assessment</p>
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p><u>Assessment Task 1</u></p> <p>Performance Criteria 1: Arrange material as per drawing or process sheet.</p> <p>Performance Criteria 2: Select tools and equipment.</p> <p>Performance Criteria 3: Set machine as per job specification.</p> <hr/> <p><u>Assessment Task 2</u></p> <p>Performance Criteria 1: Inspect all electrical connections.</p> <p>Performance Criteria 2: Check all mechanical fitting and joint.</p> <p>Performance Criteria 3: Check operation of emergency switches.</p> <p>Performance Criteria 4: Check and maintain correct machine lubricant and coolant level.</p> <hr/> <p><u>Assessment Task 3</u></p> <p>Performance Criteria 1: Select the cutter as per gear type and module.</p> <p>Performance Criteria 2: Select the clamping device as per job.</p> <p>Performance Criteria 3: Select measurement tools.</p>

	<p><u>Assessment Task 4</u></p> <p>Performance Criteria 1: Clamp the tool.</p> <p>Performance Criteria 2: Clamp the work piece.</p> <p>Performance Criteria 3: Set all parameters.</p> <p>Performance Criteria 4: Align the tool according to work piece.</p> <p>Performance Criteria 5: Proceed with operation.</p> <p>Performance Criteria 6: Monitor operation to ensure compliance with job requirements.</p>
	<p><u>Assessment Task 5</u></p> <p>Performance Criteria 1: Perform visual inspection of defects.</p> <p>Performance Criteria 2: Check dimensionally.</p> <p>Performance Criteria 3: Complete inspection report.</p>
	<p><u>Assessment Task 6</u></p> <p>Performance Criteria 1: Maintain all check sheets and work instruction on machine.</p> <p>Performance Criteria 2: Perform cleaning of machine and floor.</p> <p>Performance Criteria 3: Apply Anti-rust spray/Cleaning agent.</p> <p>Performance Criteria 4: Perform lubrication.</p> <p>Performance Criteria 5: Maintain tools and equipment.</p> <p>Performance Criteria 6: Keep tools and equipment at appropriate place.</p> <p>Performance Criteria 7: Transfer wastage material in to the wastage area.</p> <p>Performance Criteria 8: Return Excess material to store.</p>
	<p>Portfolios required at the time of assessment (if any) for</p> <p><u>Performance criteria 1 for the evaluation of portfolio:</u> Diary log of practical work for Preparation for gear cutting.</p> <p><u>Performance criteria 2 for the evaluation of portfolio:</u> Diary log of practical work for conduct pre-operational checks on hobbing machine.</p> <p><u>Performance criteria 3 for the evaluation of portfolio:</u> Diary log of practical work for selection of tools.</p> <p><u>Performance criteria 4 for the evaluation of portfolio:</u> Diary log of practical work for operate of machine.</p> <p><u>Performance criteria 5 for the evaluation of portfolio:</u> Diary log of practical work for inspection of final product.</p> <p><u>Performance criteria 6 for the evaluation of portfolio:</u> Diary log of practical work for perform workplace cleaning and maintenance.</p>

Continued on following page

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			✓			<input type="checkbox"/>	<input type="checkbox"/>
Knowledge Assessment	✓	✓				<input type="checkbox"/>	<input type="checkbox"/>
Other Requirement				✓		<input type="checkbox"/>	<input type="checkbox"/>
Each Assessment Task (with performance criteria)							
Assessment Task 1			Description of assessment task 1 Prepare for gear cutting specified by your assessor correctly using proper method.				
During the practical assessment, candidate demonstrated the following:					Yes	No	Remarks
1	Arrange material as per drawing or process sheet.				<input type="checkbox"/>	<input type="checkbox"/>	
2	Select tools and equipment.				<input type="checkbox"/>	<input type="checkbox"/>	
3	Set machine as per job specification.				<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>				Not Yet Competent <input type="checkbox"/>			

Assessment Task 2		Description of assessment task 2 Conduct pre-operational checks on hobbing machine specified by your assessor correctly.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Inspect all electrical connections.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Check all mechanical fitting and joint.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Check operation of emergency switches.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Check and maintain correct machine lubricant and coolant levels.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 3		Description of assessment task 3 Select tools specified by your assessor correctly.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Select the cutter as per gear type and module.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Select the clamping device as per job.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Select measurement tools.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 4		Description of assessment task 4 Operate machine specified by your assessor correctly on required standard.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Clamp the tool.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Clamp the work piece.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Set all parameters.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Align the tool according to work piece.	<input type="checkbox"/>	<input type="checkbox"/>	
5	Proceed with operation.	<input type="checkbox"/>	<input type="checkbox"/>	
6	Monitor operation to ensure compliance with job requirements.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 5		Description of assessment task 5 Inspect final product specified by your assessor correctly on required standard.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Perform visual inspection of defects.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Check dimensionally.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Complete inspection report.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 6		Description of assessment task 6 Perform workplace cleaning and maintenance specified by your assessor correctly as per organization standard.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Maintain all check sheets and work instruction on machine.	<input type="checkbox"/>	<input type="checkbox"/>	
2	Perform cleaning of machine and floor.	<input type="checkbox"/>	<input type="checkbox"/>	
3	Apply Anti-rust spray/Cleaning agent.	<input type="checkbox"/>	<input type="checkbox"/>	
4	Perform lubrication.	<input type="checkbox"/>	<input type="checkbox"/>	
5	Maintain tools and equipment.	<input type="checkbox"/>	<input type="checkbox"/>	
6	Keep tools and equipment at appropriate place.	<input type="checkbox"/>	<input type="checkbox"/>	
7	Transfer wastage material in to the wastage area.	<input type="checkbox"/>	<input type="checkbox"/>	
8	Return Excess material to store.	<input type="checkbox"/>	<input type="checkbox"/>	
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Portfolio(if any)		Description of portfolio Diary log of practical work			
Current <input type="checkbox"/>		Sufficient <input type="checkbox"/>	Authentic <input type="checkbox"/>	Valid <input type="checkbox"/>	Reliable <input type="checkbox"/>
Portfolio meet the following performance standards:		Yes	No	Remarks	
1	<u>Performance criteria 1 for the evaluation of portfolio:</u> Diary log of practical work for Preparation for gear cutting.	<input type="checkbox"/>	<input type="checkbox"/>		
2	<u>Performance criteria 2 for the evaluation of portfolio:</u> Diary log of practical work for conduct pre-operational checks on hobbing machine.	<input type="checkbox"/>	<input type="checkbox"/>		
3	<u>Performance criteria 3 for the evaluation of portfolio:</u> Diary log of practical work for selection of tools.	<input type="checkbox"/>	<input type="checkbox"/>		
4	<u>Performance criteria 4 for the evaluation of portfolio:</u> Diary log of practical work for operate of machine.	<input type="checkbox"/>	<input type="checkbox"/>		
5	<u>Performance criteria 5 for the evaluation of portfolio:</u> Diary log of practical work for inspection of final product.	<input type="checkbox"/>	<input type="checkbox"/>		
6	<u>Performance criteria 6 for the evaluation of portfolio:</u> Diary log of practical work for perform workplace cleaning and maintenance.	<input type="checkbox"/>	<input type="checkbox"/>		
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>			

Title of Qualification: National vocational certificate level 4 in Automotive parts production machine operator	CS Code:	Level: 3	Version: 1
Competency Standard Title: Conduct moulding and extrusion operations	Assessment Date (DD/MM/YY):		

WRITTEN ASSESSMENT

Question	Candidate's answer
1. Enlist three important steps of mould setting in the machine?	1. Lift the mould with the help of lifting equipment and place on machine bed. 2. Centralized the mould. 3. Clamp the mould with bed.
2. What is the most common reason of damage of die / Mould during operation?	Loose clamping is the most common reason of damage of die / Mould during operation
3. Enlist three main reasons defects of productive parts?	1. Shortage of material. 2. Improper setting of pressure and degassing 3. Overheated the mould.
4. What is the main reason of short moulding during moulding operation?	Injection pressure or material melting temperature is not appropriate.
5. Which chemicals are used in polyurethane product?	1. Polyols (Part-A) 2. Isocyanates (Part-B)
6. Define curing time in PU process?	It is the time taken for chemical reaction when part A (Polyols) and Part B (Isocyanates) are injected in the mold
7. Select the blow moulding product in given list. a) Cup b) Pet Bottle c) Spoon d) Bumper	b) Pet Bottle
8. Which of the following is the main part of Injection mould ? a) Core, Cavity b) Crank c) Piston d) Cam	a) Core, Cavity

Question	Candidate's answer
<p>9. In injection moulding process Injector is used to;</p> <p>a) Ejection of material b) Ejection of mould c) Ejection of part. d) Ejection of waste material</p>	<p>c) Ejection of part</p>
<p>10. Which defect is produce by improper degassing?</p> <p>a) Pinhole, air bubble, air cut b) Part color, location, and thickness. c) Part hole, position, and surface d) All on the above</p>	<p>a) Pinhole, air bubble, air cut.</p>

Title of Qualification: National vocational certificate level 4 in Automotive parts production machine operator	CS Code:	Level: 3	Version: 1
Competency Standard Title: Perform hot forging operations	Assessment Date (DD/MM/YY):		

WRITTEN ASSESSMENT

Question	Candidate's answer
1. Enlist the types of presses used in hot forging?	1. Pneumatic Press 2. Hydraulic Press 3. Mechanical Press
2. What is the Carbon steel deformation temperature?	1100 C° to 1200 C°
3. Enlist the three hot forging operations?	1. Up sitter 2. Blocker 3. Finisher
4. Write any three advantages of hot forging?	1. Increase the part strength. 2. Heavy parts can be formed easily. 3. Maintain the required dimension easily.
5. Enlist the common PPE's used in Hot Forging?	1. Helmet 2. Goggle 3. Leather Gloves 4. Safety Apron 5. Ear Plugs
6. Select which one is forging defect in below list. a. Soaking b. Gas marks c. Non filling d. Pin hole	c) Non filling
7. Which is the right method for pre heating of mould in below list? a) Gas Burner b) Kerosene burner c) Ceramic heater d) Stove	a) Gas burner

Question	Candidate's answer
8. Select main operation name during forging in below list. a) Creeper b) Blocker c) Holder d) Finder	b) Blocker
9. Can deep draw performed on forging press? a. True b. False	b) False
10. ISO stands for? a) International Standard Organization b) International System Organization c) Industry System Organization	a) International Standard Organization

Title of Qualification: National Vocational Certificate Level 4 in Automotive parts production machine operator	CS Code:	Level: 4	Version: 1
Competency Standard Title: Perform metal die casting operations	Assessment Date (DD/MM/YY):		

WRITTEN ASSESSMENT

Question	Candidate's answer
1. Enlist any three metal die casting defects?	1. Porosity 2. Blister 3. Crakes
2. Write any three advantages of metal die casting process.	1. High seed production 2. Dimensional accuracy 3. Complex shape
3. Write the three types of casting process.	1. Sand casting 2. Pressure die casting 3. Investment casting
4. What is the function of plunger?	It is a part of machine that helps in feeding the material in the mold.
5. Write any four components of casting die.	1. Core 2. Cavity 3. Ejector plate 4. Locating pins
6. Select the right molten temperature of aluminum in below list. a) 660 degree Celsius b) 1260 degree Celsius c) 1600 degree Celsius d) 250 degree Celsius	a) 660 degree Celsius
7. Which material in below list is not used in die casting process? a) Aluminum b) Plastic c) Lead d) Zinc	b) Plastic
8. HPDC stands for? a) High Pressure Die Casting b) High pouring die casting c) High pouring define cost d) Not in above	a) High Pressure Die Casting

Question	Candidate's answer
9. Is zinc melting temperature is 320 degree Celsius. a) True b) False	b) False
10. Can we use hot chamber machine for the material melt upto 400 degree Celsius. a) True b) False	a). True

Title of Qualification: National Vocational Certificate Level 4 in Automotive parts production machine operator	CS Code:	Level: 4	Version: 1
Competency Standard Title: Perform gear cutting operations	Assessment Date (DD/MM/YY):		

WRITTEN ASSESSMENT

Question	Candidate's answer
11. Enlist the three types of gears	1. Helical Gear 2. Bevel gear 3. Worm gear
12. What is the difference between the spur gear and helical gear?	The teeth of spur gear are straight. The teeth of helical gear are inclined.
13. Write any three advantages of gear hobbing?	1. High rate of production 2. Teeth profile are accurate 3. Low tooling cost
14. What is cutting feed formula?	Cutting Feed= $N \times F_z \times Z$ N=Spindle Speed Fz= Feed per Tooth Z= Number of flutes
15. Write the cutting speed formula?	Cutting speed = $(\pi \times \text{Dia} \times \text{Height}) / 100$
16. What is the bilateral tolerance? a) Total tolerance is in one direction b) Total tolerance is in both direction c) May or not may be in one direction d) Tolerance provided all over the component body	b) Total tolerance is in both direction

Question	Candidate's answer
17. Which gear has higher torque ability? a. Spur gear b. Rack gear c. Helical gear d. Worm gear	c) Helical Gear
18. For higher rate of gear production, we use milling machine. a. True b. False	b) False
19. M-series high speed steel tool has more efficient than T-series high speed steel tool? a. True b. False	a) True
20. Spur Gear has straight teeth? a. True b. False	a) True

