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# ELECTRICAL MACHINE WINDING TECHNICIAN



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**ASSESSMENT PACKAGE**  
National Vocational Certificate Level 2

Version 1 - September, 2018



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**Document Version**

September, 2018  
Islamabad, Pakistan

# ELECTRICAL MACHINE WINDING TECHNICIAN



**ASSESSMENT PACKAGE**  
National Vocational Certificate Level 2

**Version 1 - September, 2018**

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<b>This formative assessment relates to the training programme:</b> Electrical Machine Winding Technician	CS Code:	Level: 2	Version:
<b>Module Title:</b> Comply Personal Health and Safety Guidelines	<b>Assessment Date (DD/MM/YY):</b>		

Candidate Details	Name: .....  Registration/Roll Number: .....
Guidance for Candidate	<p><b>To meet the required standard of assessment, you have to complete the following assessment tasks within the given time frame (for practical demonstration &amp; assessment):</b></p> <p><b>Assessment Task 1:</b> Identify Hazards at Workplace  <b>Assessment Task 2:</b> Apply Personal Protective and Safety Equipment (PPE)  <b>Assessment Task 3:</b> Comply Occupational Safety and Health (OSH)  <b>Assessment Task 4:</b> Dispose of hazardous Waste/materials from the designated area</p> <p><b>And complete:</b></p> <ol style="list-style-type: none"> <li>1. Knowledge assessment test (Written or Oral)</li> <li>2. Portfolios at the time of assessment (if any)</li> </ol>
Minimum Evidence Required	<p><b>During a practical assessment, under observation by an assessor, you will complete:</b></p> <p><b>Assessment Task 1</b></p> <p>Performance Criteria 1:          Performance Criteria 2:          Performance Criteria 3:          Performance Criteria 4:          Performance Criteria 5:          Performance Criteria 6:</p>
	<p><b>Assessment Task 2</b></p> <p>Performance Criteria 1:          Performance Criteria 2:          Performance Criteria 3:          Performance Criteria 4:          Performance Criteria 5:</p>
	<p><b>Assessment Task 3</b></p> <p>Performance Criteria 1:          Performance Criteria 2:          Performance Criteria 3:          Performance Criteria 4:          Performance Criteria 5:</p>

	<p><b>Portfolios required at the time of assessment (if any) like trainees assignment, Project job etc:</b></p> <p>Performance criteria 1 for the evaluation of portfolio</p> <p>Performance criteria 2 for the evaluation of portfolio</p> <p>Performance criteria 3 for the evaluation of portfolio</p> <p>.....</p>
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*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)

**(Formative Assessment)**

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature:.....
Assessment Outcome	<p>COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/></p> <p>Name of the Assessor: ..... Assessor's code: .....</p> <p>Signature of the Assessor:.....</p>

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Nature of Activity							
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)	
Assessment Task 1 : <b>Identify Hazards at Workplace</b>	Description of assessment task 1

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria1:			
2	Performance criteria2:			
3	Performance criteria3:			
4	Performance criteria4:			
5	Performance criteria5			
6	Performance criteria6:			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Each Assessment Task (with performance criteria)				
Assessment Task 2 : <b>Apply Personal Protective and Safety Equipment (PPE)</b>		Description of assessment task 1		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria1:			
2	Performance criteria2:			
3	Performance criteria3:			
4	Performance criteria4:			
5	Performance criteria5			
6	Performance criteria6:			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Each Assessment Task (with performance criteria)				
Assessment Task 3 : <b>Comply Occupational Safety and Health (OSH)</b>		Description of assessment task 1		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria1:			
2	Performance criteria2:			
3	Performance criteria3:			
4	Performance criteria4:			
5	Performance criteria5			
6	Performance criteria6:			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Each Assessment Task (with performance criteria)				
Assessment Task 4 : <b>Dispose of hazardous Waste/materials from the designated area</b>		Description of assessment task 1		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria1:			
2	Performance criteria2:			
3	Performance criteria3:			
4	Performance criteria4:			
5	Performance criteria5			
6	Performance criteria6:			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Portfolio(if any)		Description of portfolio		
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	Performance criteria 1			
2	Performance criteria 2			
3	Performance criteria 3			
4	.....			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

**Assessors Judgment Guide**  
**TITLE OF QUALIFICATION**  
**(Formative Assessment)**

<b>This formative assessment relates to the training programme:</b> Electrical Machine Winding Technician	CS Code:	Level: 1	Version:
<b>Competency Standard Title:</b> Comply Personal Health and Safety Guidelines	<b>Assessment Date (DD/MM/YY):</b>		

Guidance for Candidate	<b>To complete your assessment for this Curriculum Module, you need to answer the questions on the following pages successfully.</b>
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**Assessors Guide** (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: Candidate Signature:.....
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: ..... Assessor's code: Signature of the Assessor:.....

<b>Title of Qualification:</b> Electrical Machine Winding Technician	CS Code:	Level:	Version:
<b>Module Title:</b> Comply Personal Health and Safety Guidelines	<b>Assessment Date (DD/MM/YY):</b>		



**WRITTEN ASSESSMENT**

Question	Candidate's answer
1.	
2.	
3.	
4.	
5.	
6.	
7.	

<b>This formative assessment relates to the training programme:</b> Electrical Machine Winding Technician	CS Code:	Level: 2	Version:
<b>Module Title:</b> Communicate the Workplace Policy and procedure	<b>Assessment Date (DD/MM/YY):</b>		

Candidate Details	Name: ..... Registration/Roll Number:.....								
Guidance for Candidate	<p><b>To meet the required standard of assessment, you have to complete the following assessment tasks within the given time frame (for practical demonstration &amp; assessment):</b></p> <table border="0"> <tr> <td><b>Assessment Task 1.</b></td> <td>Identify workplace communication procedures</td> </tr> <tr> <td><b>Assessment Task 2.</b></td> <td>Communicate at workplace</td> </tr> <tr> <td><b>Assessment Task 3.</b></td> <td>Draft Written Information</td> </tr> <tr> <td><b>Assessment Task 4.</b></td> <td>Review Documents</td> </tr> </table> <p><b>And complete:</b></p> <ol style="list-style-type: none"> <li>3. Knowledge assessment test (Written or Oral)</li> <li>4. Portfolios at the time of assessment (if any)</li> </ol>	<b>Assessment Task 1.</b>	Identify workplace communication procedures	<b>Assessment Task 2.</b>	Communicate at workplace	<b>Assessment Task 3.</b>	Draft Written Information	<b>Assessment Task 4.</b>	Review Documents
<b>Assessment Task 1.</b>	Identify workplace communication procedures								
<b>Assessment Task 2.</b>	Communicate at workplace								
<b>Assessment Task 3.</b>	Draft Written Information								
<b>Assessment Task 4.</b>	Review Documents								
Minimum Evidence Required	<p><b>During a practical assessment, under observation by an assessor, you will complete:</b></p> <p><b>Assessment Task 1</b></p> Performance Criteria 1: Performance Criteria 2: Performance Criteria 3: Performance Criteria 4: Performance Criteria 5: Performance Criteria 6:								
	<p><b>Assessment Task 2</b></p> Performance Criteria 1: Performance Criteria 2: Performance Criteria 3: Performance Criteria 4: Performance Criteria 5:								
	<p><b>Assessment Task 3</b></p> Performance Criteria 1: Performance Criteria 2: Performance Criteria 3: Performance Criteria 4: Performance Criteria 5:								



During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria1:			
2	Performance criteria2:			
3	Performance criteria3:			
4	Performance criteria4:			
5	Performance criteria5			
6	Performance criteria6:			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 2: <b>Communicate at workplace</b>		Description of assessment task 2		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1:			
2	Performance criteria2:			
3	Performance criteria3:			
4	Performance criteria4:			
5	Performance criteria5:			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 3: <b>Draft Written Information</b>		Description of assessment task 2		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1:			
2	Performance criteria2:			
3	Performance criteria3:			
4	Performance criteria4:			
5	Performance criteria5:			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 4: <b>Review Documents</b>		Description of assessment task 2		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1:			
2	Performance criteria2:			
3	Performance criteria3:			
4	Performance criteria4:			
5	Performance criteria5:			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Portfolio(if any)		Description of portfolio			
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	Performance criteria 1				
2	Performance criteria 2				
3	Performance criteria 3				
4	.....				
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>			

**Assessors Judgment Guide**  
**TITLE OF QUALIFICATION**  
**(Formative Assessment)**

<b>This formative assessment relates to the training programme:</b> Electrical Machine Winding Technician	CS Code:	Level: 1	Version:
<b>Module Title:</b> Communicate the Workplace Policy and procedure	<b>Assessment Date (DD/MM/YY):</b>		

Guidance for Candidate	<b>To complete your assessment for this Curriculum Module, you need to answer the questions on the following pages successfully.</b>
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**Assessors Guide** (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: Candidate Signature:.....
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: ..... Assessor's code: Signature of the Assessor:.....

<b>This formative assessment relates to the training programme:</b> Electrical Machine Winding Technician	CS Code:	Level:	Version:
<b>Module Title:</b> Communicate the Workplace Policy and procedure	<b>Assessment Date (DD/MM/YY):</b>		

**WRITTEN ASSESSMENT**

Question	Candidate's answer
8.	
9.	
10.	
11.	
12.	
13.	
14.	

<b>This formative assessment relates to the training programme:</b> Electrical Machine Winding Technician	CS Code:	Level: 2	Version:
<b>Module Title:</b> Perform Basic Communication (Specific)	<b>Assessment Date (DD/MM/YY):</b>		

Candidate Details	Name: .....  Registration/Roll Number: .....
Guidance for Candidate	<p><b>To meet the required standard of assessment, you have to complete the following assessment tasks within the given time frame (for practical demonstration &amp; assessment):</b></p> <p><b>Assessment Task 1.</b> Communicate in a team to achieve intended outcomes  <b>Assessment Task 2.</b> Follow Supervisor's instructions as per organizational SOPs  <b>Assessment Task 3.</b> Develop Generic communication skills at workplace</p> <p><b>And complete:</b></p> <p>5. Knowledge assessment test (Written or Oral)          6. Portfolios at the time of assessment (if any)</p>
Minimum Evidence Required	<p><b>During a practical assessment, under observation by an assessor, you will complete:</b></p> <p><b>Assessment Task 1</b>          Performance Criteria 1:          Performance Criteria 2:          Performance Criteria 3:          Performance Criteria 4:          Performance Criteria 5:          Performance Criteria 6:</p>
	<p><b>Assessment Task 2</b>          Performance Criteria 1:          Performance Criteria 2:          Performance Criteria 3:          Performance Criteria 4:          Performance Criteria 5:</p>
	<p><b>Assessment Task 3</b>          Performance Criteria 1:          Performance Criteria 2:          Performance Criteria 3:          Performance Criteria 4:          Performance Criteria 5:</p>





Each Assessment Task (with performance criteria)				
Assessment Task 1 : <b>Communicate in a team to achieve intended outcomes</b>		Description of assessment task 1		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria1:			
2	Performance criteria2:			
3	Performance criteria3:			
4	Performance criteria4:			
5	Performance criteria5			
6	Performance criteria6:			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Each Assessment Task (with performance criteria)				
Assessment Task 2 : <b>Follow Supervisor's instructions as per organizational SOPs</b>		Description of assessment task 1		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria1:			
2	Performance criteria2:			
3	Performance criteria3:			
4	Performance criteria4:			
5	Performance criteria5			
6	Performance criteria6:			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Each Assessment Task (with performance criteria)				
Assessment Task 3: <b>Develop Generic communication skills at workplace</b>		Description of assessment task 1		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria1:			
2	Performance criteria2:			
3	Performance criteria3:			
4	Performance criteria4:			
5	Performance criteria5			
6	Performance criteria6:			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Portfolio(if any)		Description of portfolio		
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	Performance criteria 1			
2	Performance criteria 2			
3	Performance criteria 3			
4	.....			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		



**WRITTEN ASSESSMENT**

Question	Candidate's answer
15.	
16.	
17.	
18.	
19.	
20.	
21.	

<b>This formative assessment relates to the training programme:</b> Electrical Machine Winding Technician	CS Code:	Level: 2	Version:
<b>Module Title:</b> Perform Basic Computer Application (Specific)	<b>Assessment Date (DD/MM/YY):</b>		

Candidate Details	Name: .....  Registration/Roll Number: .....
Guidance for Candidate	<p><b>To meet the required standard of assessment, you have to complete the following assessment tasks within the given time frame (for practical demonstration &amp; assessment):</b></p> <p><b>Assessment Task 1.</b> Create Word Documents <b>Assessment Task 2.</b> Use internet for Browsing</p> <p><b>And complete:</b></p> <p>7. Knowledge assessment test (Written or Oral) 8. Portfolios at the time of assessment (if any)</p>
Minimum Evidence Required	<p><b>During a practical assessment, under observation by an assessor, you will complete:</b></p> <p><b>Assessment Task 1</b> Performance Criteria 1: Performance Criteria 2: Performance Criteria 3: Performance Criteria 4: Performance Criteria 5: Performance Criteria 6:</p>
	<p><b>Assessment Task 2</b> Performance Criteria 1: Performance Criteria 2: Performance Criteria 3: Performance Criteria 4: Performance Criteria 5:</p>
	<p><b>Assessment Task 3</b> Performance Criteria 1: Performance Criteria 2: Performance Criteria 3: Performance Criteria 4: Performance Criteria 5:</p>
	<p><b>Portfolios required at the time of assessment (if any) like trainees assignment, Projects /Jobs etc:</b></p> <p><b>Performance criteria 1 for the evaluation of portfolio</b> <b>Performance criteria 2 for the evaluation of portfolio</b> <b>Performance criteria 3 for the evaluation of portfolio</b> .....</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)  
**(Formative 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	
	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Nature of Activity							
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)			
Assessment Task 1 : <b>Create Word Documents</b>		Description of assessment task 1	
During the practical assessment, candidate demonstrated the following:		Yes	No
1	Performance criteria1:		
2	Performance criteria2:		
3	Performance criteria3:		
4	Performance criteria4:		
5	Performance criteria5		
6	Performance criteria6:		
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>	

Assessment Task 2: <b>Use internet for Browsing</b>		Description of assessment task 2		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1:			
2	Performance criteria2:			
3	Performance criteria3:			
4	Performance criteria4:			
5	Performance criteria5:			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Portfolio(if any)		Description of portfolio		
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	Performance criteria 1			
2	Performance criteria 2			
3	Performance criteria 3			
4	.....			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		



**Assessors Judgment Guide**  
**TITLE OF QUALIFICATION**  
**(Formative Assessment)**

<b>This formative assessment relates to the training programme:</b> Electrical Machine Winding Technician	CS Code:	Level: 1	Version:
<b>Module Title:</b> Perform Basic Computer Application (Specific)	<b>Assessment Date (DD/MM/YY):</b>		

Guidance for Candidate	<b>To complete your assessment for this Curriculum Module, you need to answer the questions on the following pages successfully.</b>
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**Assessors Guide** (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature: .....
Written Assessment Outcome	COMPETENT <input type="checkbox"/> <span style="margin-left: 200px;">NOT YET COMPETENT <input type="checkbox"/></span> Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor: .....

<b>This formative assessment relates to the training programme:</b> Electrical Machine Winding Technician	CS Code:	Level:	Version:
<b>Module Title:</b> Perform Basic Computer Application (Specific)	<b>Assessment Date (DD/MM/YY):</b>		

**WRITTEN ASSESSMENT**

Question	Candidate's answer
22.	
23.	
24.	
25.	
26.	
27.	
28.	

<b>This formative assessment relates to the training programme:</b> Electrical Machine Winding Technician	CS Code: 0713001125	Level: 2	Version:
<b>Module Title:</b> Maintain Tools Equipments and Machinery	<b>Assessment Date (DD/MM/YY):</b>		

Candidate Details	Name: .....  Registration/Roll Number: .....
Guidance for Candidate	<p><b>To meet the required standard of assessment, you have to complete the following assessment tasks within the given time frame (for practical demonstration &amp; assessment):</b></p> <ol style="list-style-type: none"> <li>1. <b>Assessment Task 1:</b> Prepare for work to maintain tools / equipment and machinery</li> <li>2. <b>Assessment Task 2:</b> Maintain Tools and equipment</li> <li>3. <b>Assessment Task 3:</b> Perform Preventive maintenance of tools and equipment</li> <li>4. <b>Assessment Task 4:</b> Perform Corrective maintenance of tools and equipment</li> <li>5. <b>Assessment Task 5:</b> Ensure Electrical/Thermal Insulation of tools and equipment</li> <li>6. <b>Assessment Task 6:</b> Calibrate measuring instruments</li> <li>7. <b>Assessment Task 7:</b> Maintain Winding Machines</li> <li>8. <b>Assessment Task 8:</b> Manage Inventory of tools/equipment and Machinery</li> </ol> <p><b>And complete:</b></p> <ol style="list-style-type: none"> <li>9. Knowledge assessment test (Written or Oral)</li> <li>10. Portfolios at the time of assessment (if any)</li> </ol>
Minimum Evidence Required	<p><b>During a practical assessment, under observation by an assessor, you will complete:</b></p> <p><b>Assessment Task 1</b></p> <p>Performance criteria1: Prepare list of the PPE'S required for winding technician          Performance criteria2: Identify the required PPE'S          Performance criteria3: Collect the required PPE'S          Performance criteria4: Ensure working / functional condition of PPE'S          Performance criteria5: Prepare list of the tools / equipment required for winding technician          Performance criteria6: Identify the tools/equipment required for winding technician          Performance criteria7: Collect the tools/equipment required for winding technician</p> <p><b>Assessment Task 2</b></p> <p>Performance criteria1: Display list of the tools / equipment required for winding technician          Performance criteria2: Match the available tools / equipment with the displayed list          Performance criteria3: Prepare list of missing tools and equipment          Performance criteria4: Arrange the missing tools and equipment</p>

	<p><b>Assessment Task 3</b></p> <p>Performance criteria1: Check physical condition of tools and equipment  Performance criteria2: Perform cleaning of tools and equipment  Performance criteria3: Perform lubrication of tools and equipment  Performance criteria4: Ensure proper storage of tools and equipment</p>
	<p><b>Assessment Task 4</b></p> <p>Performance criteria1: Check working/functional condition of tools and equipment  Performance criteria2: Perform Corrective maintenance of tools and equipment regarding:</p> <ul style="list-style-type: none"> <li>➤ Sharpening</li> <li>➤ Adjustment</li> <li>➤ Balancing</li> <li>➤ Tightness</li> <li>➤ Jamming</li> <li>➤ Breakage</li> <li>➤ Calibration</li> </ul>
	<p><b>Assessment Task 5</b></p> <p>Performance criteria1: Check Electrical Insulation of tools and equipment  Performance criteria2: Maintain electrical insulation of tools and equipment  Performance criteria3: Check Thermal Insulation of tools and equipment  Performance criteria4: Maintain Thermal insulation of tools and equipment  Performance criteria5: Ensure proper storage of tools and equipment</p>
	<p><b>Assessment Task 6</b></p> <p>Performance criteria1: Check calibration of measuring instruments  Performance criteria2: Set calibration of measuring instruments  Performance criteria3: Compare calibration with the standard/Pre-calibrated instrument</p>
	<p><b>Assessment Task 7</b></p> <p>Performance criteria1: Check physical condition of winding machines  Performance criteria2: Perform cleaning of winding machines  Performance criteria3: Perform lubrication of winding machines  Performance criteria4: Check calibration of turns counter of winding machines  Performance criteria5: Set calibration of turns counter of winding machines  Performance criteria6: Replace turns counter of winding machines  Performance criteria7: Ensure safe covering/storing of winding machines</p>
	<p><b>Assessment Task 8</b></p> <p>Performance criteria1: Collect relevant inventory forms/stock register  Performance criteria2: Record receiving of tools, equipment and machinery in inventory forms/stock register  Performance criteria3: Maintain record of tools and equipment in stock register</p>
	<p><b>Portfolios required at the time of assessment (if any) like trainees assignment, Project job etc:</b></p> <p>Performance criteria 1 for the evaluation of portfolio  Performance criteria 2 for the evaluation of portfolio  Performance criteria 3 for the evaluation of portfolio  .....</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)

**(Formative 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	
	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Nature of Activity							
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)						
Assessment Task 1 :Prepare for work to maintain tools / equipment and machinery		Description of assessment task 1				
During the practical assessment, candidate demonstrated the following:				Yes	No	Remarks
1	Performance criteria1:Prepare list of the PPE'S required for winding technician					
2	Performance criteria2:Identify the required PPE'S					
3	Performance criteria3:Collect the required PPE'S					
4	Performance criteria4:Ensureworking / functional condition of PPE'S					
5	Performance criteria5: Prepare list of the tools / equipment required for winding technician					
6	Performance criteria6:Identify the tools/equipment required for winding technician					
7	Performance criteria7:Collect the tools/equipment required for winding technician					
Competent <input type="checkbox"/>				Not Yet Competent <input type="checkbox"/>		

Assessment Task 2: Maintain Tools and equipment		Description of assessment task 2		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria1: Display list of the tools / equipment required for winding technician			
2	Performance criteria2: Match the available tools / equipment with the displayed list			
3	Performance criteria3: Prepare list of missing tools and equipment			
4	Performance criteria4: Arrange the missing tools and equipment			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 3: Perform Preventive maintenance of tools and equipment		Description of assessment task 3		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria1: Check physical condition of tools and equipment			
2	Performance criteria2: Perform cleaning of tools and equipment			
3	Performance criteria3: Perform lubrication of tools and equipment			
4	Performance criteria4: Ensure proper storage of tools and equipment			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 4: Perform Corrective maintenance of tools and equipment		Description of assessment task 4		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria1: Check working/functional condition of tools and equipment			
2	Performance criteria2: Perform Corrective maintenance of tools and equipment regarding: <ul style="list-style-type: none"> <li>➤ Sharpening</li> <li>➤ Adjustment</li> <li>➤ Balancing</li> <li>➤ Tightness</li> <li>➤ Jamming</li> <li>➤ Breakage</li> <li>➤ Calibration</li> </ul>			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 5: Ensure Electrical/Thermal Insulation of tools and equipment		Description of assessment task 5		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria1: Check Electrical Insulation of tools and equipment			
2	Performance criteria2: Maintain electrical insulation of tools and equipment			
3	Performance criteria3: Check Thermal Insulation of tools and equipment			
4	Performance criteria4: Maintain Thermal insulation of tools and equipment			
5	Performance criteria5: Ensure proper storage of tools and equipment			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 6: Calibrate measuring instruments		Description of assessment task 6		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria1: Check calibration of measuring instruments			
2	Performance criteria2: Set calibration of measuring instruments			
3	Performance criteria3: Compare calibration with the standard/Pre-calibrated instrument			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 7: Maintain Winding Machines		Description of assessment task 7		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria1: Check physical condition of winding machines			
2	Performance criteria2: Perform cleaning of winding machines			
3	Performance criteria3: Perform lubrication of winding machines			
4	Performance criteria4: Check calibration of turns counter of winding machines			
5	Performance criteria5: Set calibration of turns counter of winding machines			
6	Performance criteria6: Replace turns counter of winding machines			
7	Performance criteria7: Ensure safe covering/storing of winding machines			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task8: Manage Inventory of tools/equipment and Machinery		Description of assessment task8		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria1: Collect relevant inventory forms/stock register			
2	Performance criteria2: Record receiving of tools, equipment and machinery in inventory forms/stock register			
3	Performance criteria3: Maintain record of tools and equipment in stock register			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Portfolio(if any)		Description of portfolio			
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	Performance criteria 1				
2	Performance criteria 2				
3	Performance criteria 3				
4	.....				
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>			





## WRITTEN ASSESSMENT

Question	Candidate's answer
29. What steps you will take to maintain tools & equipment?	<p>Following steps are essential to maintain tools &amp; equipment:</p> <ul style="list-style-type: none"> <li>• Clean your tools / equipment's.</li> <li>• Protect electrical cords.</li> <li>• Lubricate tools/ equipment's.</li> <li>• Inspect tools / equipment's regularly.</li> <li>• Store tools / equipment's with care.</li> </ul>
30. What is difference between repair & maintenance?	<p>The difference between repair and maintenance is:</p> <ul style="list-style-type: none"> <li>• Repairs are services that are needed when a part is not working correctly. Either the part has malfunctioned or it has become worn to the point where the part needs to be replaced in order to maintain the performance of your machinery.</li> <li>• Maintenance is services required to ensure your tools, equipment &amp; machinery longevity. These services include oiling, cleaning, lubricating of your tools, equipment and machinery.</li> </ul>
31. Enlist names of types of maintenance?	<p>Four general types of maintenance are corrective, preventive, risk-based and condition-based maintenance.</p>
32. What is meant by corrective maintenance?	<p>Corrective maintenance can be defined as a maintenance task performed to identify, isolate, and rectify a fault so that the failed equipment, machine, or asset can be restored to an operational condition within the tolerances or limits established for in-service operations.</p>
33. What is preventive maintenance?	<p>Preventive maintenance is a maintenance that is regularly performed on a tools, equipment and machinery to lessen the likelihood of it failing. It is performed while the tool, equipment and machinery is still working so that it does not break down unexpectedly.</p>
34. What is difference between corrective and preventive maintenance?	<ul style="list-style-type: none"> <li>• Corrective maintenance is done after problem while preventive is before problem.</li> <li>• Corrective maintenance is done randomly while preventive is done frequently.</li> <li>• Corrective maintenance is to repair unscheduled breakdown of equipment while preventive maintenance is to perform scheduled maintenance of equipment.</li> </ul>
35. What is thermal insulation?	<p>Thermal insulation is the reduction of heat transfer between objects in thermal contact or in range of radiated influence. Thermal insulation can be achieved with specially engineered methods or processes, as well as with suitable object shapes and materials.</p> <p>Heat flow is an inevitable consequence of contact between objects of different temperature. Thermal insulation provides a region of insulation in which thermal conduction is reduced or thermal radiation is reflected rather than absorbed by the lower-temperature body.</p>
36. How insulating capability of a material is measured?	<p>The insulating capability of a material is measured as the inverse of thermal conductivity (k). Low thermal conductivity is equivalent to high insulating capability (Resistance value).</p>

Question	Candidate's answer
37. What is meant by calibration?	Calibration is a comparison between a known measurement (the standard) and the measurement using your instrument. Typically, the accuracy of the standard should be ten times the accuracy of the measuring device being tested. For the calibration of the scale, a calibrated slip gauge is used.
38. What is coil winding machine?	Electrical coil winding machines include motor coil, transformer coil, inductor coil, and choke coil winding machines. Motor coil winding machines are used to wind both single-phase and three-phase motor coil. They are designed for use with concentric or equal-size motor winding arbors.
39. What are types of inventory of repair shop?	Types of Inventory of a repair shop are: <ul style="list-style-type: none"> <li>• Faulty machines</li> <li>• Raw materials/ spare parts</li> <li>• Work-in-progress</li> <li>• Repaired machines</li> </ul>

**(Formative Assessment)**

<b>This formative assessment relates to the training programme:</b> Electrical Machine Winding Technician	CS Code: 0713001126	Level: 2	Version:
<b>Module Title:</b> Perform on site inspection / testing of machine	<b>Assessment Date (DD/MM/YY):</b>		

Candidate Details	Name: .....  Registration/Roll Number:.....
Guidance for Candidate	<p><b>To meet the required standard of assessment, you have to complete the following assessment tasks within the given time frame (for practical demonstration &amp; assessment):</b></p> <p>                     9. <b>Assessment Task 1:</b> Take feedback from the operator                      10. <b>Assessment Task 2:</b> Check Physical status/condition of Machine                      11. <b>Assessment Task 3:</b> Check data plate of machine for specifications                      12. <b>Assessment Task 4:</b> Conduct Megger test of the Machine                      13. <b>Assessment Task 5:</b> Carry out Transformer's oil test                      14. <b>Assessment Task 6:</b> Perform Total Turn Ratio Test of Transformer                      15. <b>Assessment Task 7:</b> Check Terminals/Terminal plate of Machine                 </p> <p><b>And complete:</b></p> <p>                     11. Knowledge assessment test (Written or Oral)                      12. Portfolios at the time of assessment (if any)                 </p>
Minimum Evidence Required	<p><b>During a practical assessment, under observation by an assessor, you will complete:</b></p> <p><b>Assessment Task 1</b></p> <p>                     Performance Criteria 1: Perform site visit.                      Performance Criteria 2: Collect information from the machine operator regarding the fault.                      Performance Criteria 3: Record the data.                 </p> <hr/> <p><b>Assessment Task 2</b></p> <p>                     Performance Criteria 1: Perform physical checking of machine by:                     <ul style="list-style-type: none"> <li>○ Seeing</li> <li>○ Touching</li> <li>○ Smelling</li> </ul>                     Performance Criteria 2: Check for loose fitting                      Performance Criteria 3: Check for open / loose / burnt connections                      Performance Criteria 4: Check for true connections as per circuit diagram                 </p> <hr/> <p><b>Assessment Task 3</b></p> <p>                     Performance Criteria 1: Locate the Data/Name Plate of Machine                      Performance Criteria 2: Read data of Machine                      Performance Criteria 3: Record data of Machine                 </p>

	<p><b>Assessment Task 4</b></p> <p>Performance Criteria 1: Identify the required tools and equipment for conduct of Megger Test</p> <p>Performance Criteria 2: Collect the required tools and equipment</p> <p>Performance Criteria 3: Disconnect the Supply Cables</p> <p>Performance Criteria 4: Perform testing with Megger</p> <ul style="list-style-type: none"> <li>○ Ground/Earth Fault</li> <li>○ Short Circuit</li> <li>○ Open Circuit</li> </ul> <p>Performance Criteria 5: Record test result</p>
	<p><b>Assessment Task 5</b></p> <p>Performance Criteria 1: Identify the required tools and equipment</p> <p>Performance Criteria 2: Collect the required tools and equipment</p> <p>Performance Criteria 3: Disconnect the Supply Cables</p> <p>Performance Criteria 4: Take Oil Sample for test</p> <p>Performance Criteria 5: Perform oil testing</p> <ul style="list-style-type: none"> <li>○ High Voltage/Breakdown Test</li> <li>○ Moisture Test</li> <li>○ Flash Point Test</li> </ul> <p>Performance Criteria 6: Record test results</p>
	<p><b>Assessment Task 6</b></p> <p>Performance Criteria 1: Identify the required tools and equipment</p> <p>Performance Criteria 2: Collect the required tools</p> <p>Performance Criteria 3: Disconnect the Supply Cables</p> <p>Performance Criteria 4: Perform TTR Test</p> <p>Performance Criteria 5: Compare TTR test result with the specifications as per Data Plate</p> <p>Performance Criteria 6: Record test results</p>
	<p><b>Assessment Task 7</b></p> <p>Performance Criteria 1: Inspect the Terminal Plate of Machine</p> <p>Performance Criteria 2: Check the physical condition of nut bolts</p> <p>Performance Criteria 3: Check space/gap between the terminals</p> <p>Performance Criteria 4: Check the condition of linking strips for connection</p> <p>Performance Criteria 5: Check the space condition for rusting/carbonizing between terminals</p>
	<p><b>Portfolios required at the time of assessment (if any) like trainees assignment, projects/Jobs etc.</b></p> <p>Performance criteria 1 for the evaluation of portfolio</p> <p>Performance criteria 2 for the evaluation of portfolio</p> <p>Performance criteria 3 for the evaluation of portfolio</p> <p>.....</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)

**(Formative Assessment)**

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)			
Assessment Task 1 :Take feedback from the operator		Description of assessment task 1	
During the practical assessment, candidate demonstrated the following:			
	Yes	No	Remarks
1	Performance criteria 1: Perform site visit		
2	Performance criteria 2: Collect information from the machine operator regarding the fault		
3	Performance criteria 3: Record the data		
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>	

Assessment Task 2: Check Physical status/condition of Machine		Description of assessment task 2		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Perform physical checking of machine by: o Seeing o Touching o Smelling			
2	Performance criteria 2: Check for loose fitting			
3	Performance criteria 3: Check for open / loose / burnt connections			
4	Performance criteria 4: Check for true connections as per circuit diagram			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 3: Check data plate of machine for specifications		Description of assessment task 3		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Locate the Data/Name Plate of Machine			
2	Performance criteria 2: Read data of Machine			
3	Performance criteria 3: Record data of Machine			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 4: Conduct Megger test of the Machine		Description of assessment task 4		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Identify the required tools and equipment for conduct of Megger Test			
2	Performance criteria 2: Collect the required tools and equipment			
3	Performance criteria 3: Disconnect the Supply Cables			
4	Performance criteria 4: Perform testing with Megger <ul style="list-style-type: none"> <li>➤ Ground/Earth Fault</li> <li>➤ Short Circuit</li> <li>➤ Open Circuit</li> </ul>			
5	Performance criteria 5: : Record test result			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 5: Carry out Transformer's oil test		Description of assessment task 5		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Identify the required tools and equipment			
2	Performance criteria 2: Collect the required tools and equipment			
3	Performance criteria 3: Disconnect the Supply Cables			
4	Performance criteria 4: Take Oil Sample for test			
5	Performance criteria 5: Perform oil testing <ul style="list-style-type: none"> <li>➤ High Voltage/Breakdown Test</li> <li>➤ Moisture Test</li> <li>➤ Flash Point Test</li> </ul>			
6	Record test results			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		



Assessment Task 6: Perform Total Turn Ratio Test of Transformer		Description of assessment task 6		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Identify the required tools and equipment			
2	Performance criteria 2: Collect the required tools			
3	Performance criteria 3: Disconnect the Supply Cables			
4	Performance criteria 4: Perform TTR Test			
5	Performance criteria 5: Compare TTR test result with the specifications as per Data Plate			
6	Performance criteria 6: Record test result			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 7: Perform Total Turn Ratio Test of Transformer		Description of assessment task 7		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Inspect the Terminal Plate of Machine			
2	Performance criteria 2: Check the physical condition of nut bolts			
3	Performance criteria 3: Check space/gap between the terminals			
4	Performance criteria 4: Check the condition of linking strips for connection			
5	Performance criteria 5: Check the space condition for rusting/carbonizing between terminals			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Portfolio(if any)		Description of portfolio		
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	Performance criteria 1			
2	Performance criteria 2			
3	Performance criteria 3			
4	.....			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

**Knowledge Assessment**  
**TITLE OF QUALIFICATION**  
**(Formative Assessment)**

<b>This formative assessment relates to the training programme:</b> Electrical Machine Winding Technician	CS Code:	Level: 2	Version:
<b>Module Title:</b> Perform on site inspection / testing of machine	<b>Assessment Date (DD/MM/YY):</b>		

Guidance for Candidate	<b>To complete your assessment for this Curriculum Module, you need to answer the questions on the following pages successfully.</b>
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**Assessors Guide** (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Name: ..... Registration/Roll Number:  
 Details

	CS Code:	Level: 2	Version:
Assessment : Outcome	Signature of the Assessor:		<b>Assessment Date (DD/MM/YY):</b>

## WRITTEN ASSESSMENT

Question	Candidate's answer
40. How physical status/condition of Electrical Machine can be checked?	Following measures are taken to check Physical conditions of Electrical Machine: <ul style="list-style-type: none"><li>○ Seeing</li><li>○ Touching</li><li>○ Smelling</li></ul>
41. What does Data Plate of Machine shows?	Data Plate of Machine shows the rating and specifications of Machine.
42. Why Megger test is performed?	Megger Test is performed to check the following: <ol style="list-style-type: none"><li>1. Open Circuit</li><li>2. Short Circuit</li><li>3. Insulation Condition</li><li>4. Earth Fault/Leakage</li></ol>
43. Why Transformer Oil Test is performed?	Transformer Oil Test is used to check the strength of Di-Electric Constant.
44. What does TTR stands for?	TTR stands for Total Turn Ratio of Transformer.
45. Why Terminal Plates of Electrical Machine are checked?	Terminal Plate of Machine are checked for Proper connection, carbonizing, burn out and loose connection.

<b>This formative assessment relates to the training programme:</b> Electrical Machine Winding Technician	CS Code: 0713001127	Level: 2	Version:
<b>Module Title:</b> Carry out Mechanical De-Installation of Machine	<b>Assessment Date (DD/MM/YY):</b>		

Candidate Details	Name: .....  Registration/Roll Number:.....
Guidance for Candidate	<p><b>To meet the required standard of assessment, you have to complete the following assessment tasks within the given time frame (for practical demonstration &amp; assessment):</b></p> <p><b>16. Assessment Task 1:</b>Prepare for work to Carry out Mechanical De-Installation of Machine</p> <p><b>17. Assessment Task 2:</b>Isolate Machine from Pneumatic/hydraulic Supply</p> <p><b>18. Assessment Task 3:</b>Isolate Machine from Fuel Supply</p> <p><b>19. Assessment Task 4:</b> Isolate Machine from Gear Box</p> <p><b>20. Assessment Task 5:</b> Isolate Machine from Pulley</p> <p><b>21. Assessment Task 6:</b> Perform De-Coupling of Machine</p> <p><b>22. Assessment Task 7:</b> De- Install Machine from Foundation</p> <p><b>And complete:</b></p> <p>13. Knowledge assessment test (Written or Oral)</p> <p>14. Portfolios at the time of assessment (if any)</p>
Minimum Evidence Required	<p><b>During a practical assessment, under observation by an assessor, you will complete:</b></p> <p><b>Assessment Task 1</b></p> <p>Performance Criteria 1: Identify the required PPE's</p> <p>Performance Criteria 2: Collect the required PPE's</p> <p>Performance Criteria 3: Record the data</p> <p>Performance Criteria 3: Identify the required tools and equipment</p> <p>Performance Criteria 4: Collect the required tools and equipment</p> <p>Performance Criteria 5: Ensure functional condition of PPE's/Tools and equipment</p> <p>Performance Criteria 6: Ensure safe working conditions</p> <ul style="list-style-type: none"> <li>○ Clear Passage</li> <li>○ Cleanliness</li> <li>○ Adequate light</li> <li>○ Ventilation</li> </ul>

	<p><b>Assessment Task 2</b></p> <p>Performance Criteria 1: Wear the required PPE's</p> <p>Performance Criteria 2: Identify the required tools and equipment</p> <p>Performance Criteria 3: Locate the main valve of Pneumatic/hydraulic supply to the machine</p> <p>Performance Criteria 4: Shut off the main valve of Pneumatic/hydraulic supply to the machine</p> <p>Performance Criteria 5: Identify parts to be isolated from pneumatic/hydraulic supply</p> <p>Performance Criteria 6: Perform isolation of all the pneumatic/hydraulic supplies to the machine</p> <p>Performance Criteria 7: Perform dead plugging of all the pneumatic/hydraulic supplies</p> <p>Performance Criteria 8: Maintain Record of pneumatic/hydraulic supplies isolation</p> <p>Performance Criteria 9: Perform Tagging of the isolated pneumatic/hydraulic supplies</p>
	<p><b>Assessment Task 3</b></p> <p>Performance Criteria 1: Wear the required PPE's</p> <p>Performance Criteria 2: Identify the required tools and equipment</p> <p>Performance Criteria 3: Locate the main valve of fuel supply to the machine</p> <p>Performance Criteria 4: shut off the main valve of fuel supply to the machine</p> <p>Performance Criteria 5: Identify parts to be isolated from fuel supplies</p> <p>Performance Criteria 6: Perform isolation of all the fuel supplies to the machine</p> <p>Performance Criteria 7: Perform dead plugging of all the fuel supplies</p> <p>Performance Criteria 8: Maintain Record of fuel supplies isolation</p> <p>Performance Criteria 9: Perform Tagging of the isolated fuel supplies</p>
	<p><b>Assessment Task 4</b></p> <p>Performance Criteria 1: Wear the required PPE's</p> <p>Performance Criteria 2: Identify the required tools and equipment</p> <p>Performance Criteria 3: Locate the gear box of the machine</p> <p>Performance Criteria 4: Perform marking on driver, driven and foundation for proper alignment and placement of parts</p> <p>Performance Criteria 5: Perform isolation of Gear Box</p> <p>Performance Criteria 6: Record isolation of Gear Box</p> <p>Performance Criteria 7: Perform Tagging on Gear Box and driven end</p>
	<p><b>Assessment Task 5</b></p> <p>Performance Criteria 1: Wear the required PPE's</p> <p>Performance Criteria 2: Identify the required tools and equipment</p> <p>Performance Criteria 3: Locate the pulley of the machine</p> <p>Performance Criteria 4: Perform isolation of pulley</p> <p>Performance Criteria 5: Record isolation of pulley</p> <p>Performance Criteria 6: Perform Tagging on pulley and its allied parts</p>

	<p><b>Assessment Task 6</b></p> <p>Performance Criteria 1: Wear the required PPE's  Performance Criteria 2: Identify the required tools and equipment  Performance Criteria 3: Locate the parts of the machine to be De-coupled  Performance Criteria 4: Perform marking on parts to be De-coupled for realignment/readjustment  Performance Criteria 5: Perform De-coupling of the machine  Performance Criteria 6: Record De-coupling of the machine  Performance Criteria 7: Perform Tagging on De-coupled parts of the machine</p> <hr/> <p><b>Assessment Task 7</b></p> <p>Performance Criteria 1: Wear the required PPE's  Performance Criteria 2: Identify the required tools and equipment  Performance Criteria 3: Identify machine to be de-installed from foundation  Performance Criteria 4: Perform de-installation of machine from foundation  Performance Criteria 5: Record de-installation of machine  Performance Criteria 6: Perform tagging on the de-installed machine</p> <hr/> <p><b>Portfolios required at the time of assessment (if any) like trainees assignment, Projects/Jobs etc:</b></p> <p>Performance criteria 1 for the evaluation of portfolio  Performance criteria 2 for the evaluation of portfolio  Performance criteria 3 for the evaluation of portfolio  .....</p>
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*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)

**(Formative Assessment)**

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)				
Assessment Task 1 :Prepare for work to Carry out Mechanical De-Installation of Machine		Description of assessment task 1		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Identify the required PPE's			
2	Performance criteria 2: Collect the required PPE's			
3	Performance criteria 3: Identify the required tools and equipment			
4	Performance criteria 4: Collect the required tools and equipment			
5	Performance criteria 5: Ensure functional condition of PPE's/Tools and equipment			
6	Performance criteria 6: Ensure safe working conditions <ul style="list-style-type: none"> <li>○ Clear Passage</li> <li>○ Cleanliness</li> <li>○ Adequate light</li> <li>○ Ventilation</li> </ul>			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 2: Isolate Machine from Pneumatic/hydraulic Supply		Description of assessment task 2		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Wear the required PPE's			
2	Performance criteria 2: Identify the required tools and equipment			
3	Performance criteria 3: Locate the main valve of Pneumatic/hydraulic supply to the machine			
4	Performance criteria 4: Close the main valve of Pneumatic/hydraulic supply to the machine			
5	Performance criteria 5: Identify parts to be isolated from pneumatic/hydraulicsupply			
6	Performance criteria 6: Perform isolation of all the pneumatic/hydraulic supplies to the machine			
7	Performance criteria 7: Perform dead plugging of all the pneumatic/hydraulic supplies			
8	Performance criteria 8: Maintain Record of pneumatic/hydraulic supplies isolation			
9	Performance criteria 9: Perform Tagging of the isolated pneumatic/hydraulic supplies			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		



Assessment Task 3: Isolate Machine from Fuel Supply		Description of assessment task 3		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Wear the required PPE's			
2	Performance criteria 2: Identify the required tools and equipment			
3	Performance criteria 3: Locate the main valve of fuel supply to the machine			
4	Performance criteria 4: Shut off the main valve of fuel supply to the machine			
5	Performance criteria 5: Identify parts to be isolated from fuel supplies			
6	Performance criteria 6: Perform isolation of all the fuel supplies to the machine			
7	Performance criteria 7: Perform dead plugging of all the fuel supplies			
8	Performance criteria 8: Maintain Record of fuel supplies isolation			
9	Performance criteria 9: Perform Tagging of the isolated fuel supplies			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 4: Isolate Machine from Gear Box		Description of assessment task 4		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Wear the required PPE's			
2	Performance criteria 2: Identify the required tools and equipment			
3	Performance criteria 3: Locate the gear box of the machine			
4	Performance criteria 4: Perform marking on driver, driven and foundation for proper alignment and placement of parts			
5	Performance criteria 5: Perform isolation of Gear Box			
6	Performance criteria 6: Record isolation of Gear Box			
7	Performance criteria 7: Perform Tagging on Gear Box and driven end			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 5: Isolate Machine from Pulley		Description of assessment task 5		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Wear the required PPE's			
2	Performance criteria 2: Identify the required tools and equipment			
3	Performance criteria 3: Locate the pulley of the machine			
4	Performance criteria 4: Perform isolation of pulley			
5	Performance criteria 5: Record isolation of pulley			
6	Performance criteria 6: Perform Tagging on pulley and its allied parts			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 6: Perform De-Coupling of Machine		Description of assessment task 6		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Wear the required PPE's			
2	Performance criteria 2: Identify the required tools and equipment			
3	Performance criteria 3: Locate the parts of the machine to be De-coupled			
4	Performance criteria 4: Perform marking on parts to be De-coupled for realignment/readjustment			
5	Performance criteria 5: Perform De-coupling of the Machine			
6	Performance criteria 6: Record De-coupling of the Machine			
7	Performance criteria 7: Perform Tagging on De-coupled parts of the machine			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 7: De- Install Machine from Foundation		Description of assessment task 7		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Wear the required PPE's			
2	Performance criteria 2: Identify the required tools and Equipment			
3	Performance criteria 3: Identify machine to be de-installed from foundation			
4	Performance criteria 4: Perform de-installation of machine from foundation			
5	Performance criteria 5: Record de-installation of Machine			
6	Performance criteria 6: Perform tagging on the de-installed machine			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Portfolio(if any)		Description of portfolio		
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	Performance criteria 1			
2	Performance criteria 2			
3	Performance criteria 3			
4	.....			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

**Knowledge Assessment**  
**TITLE OF QUALIFICATION**  
**(Formative Assessment)**

<b>This formative assessment relates to the training programme:</b> Electrical Machine Winding Technician	CS Code:	Level: 2	Version:
<b>Module Title:</b> Carry out Mechanical De-Installation of Machine	<b>Assessment Date (DD/MM/YY):</b>		

Guidance for Candidate	<b>To complete your assessment for this Curriculum Module, you need to answer the questions on the following pages successfully.</b>
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**Assessors Guide** (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature: .....
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor: .....

<b>This formative assessment relates to the training programme:</b> Electrical Machine Winding Technician	CS Code:	Level: 2	Version:
<b>Module Title:</b> Carry out Mechanical De-Installation of Machine	<b>Assessment Date (DD/MM/YY):</b>		

## WRITTEN ASSESSMENT

Question	Candidate's answer
46. What is meant by pneumatic supply?	Some electrical machines are connected with air compressor; supply of air means pneumatic supply.
47. What is meant by fuel supply?	Some electrical machines are connected with petrol, diesel, gas lines; a line of these fuels is called fuel supply.
48. Why gear boxes are used?	Gear boxes are used to transmit heavy mechanical power from electrical motor (Driver) to driven at other speed / torque.
49. Why Pulley is used?	Pulley is used to transmit light mechanical power from electrical motor (Driver) to driven at other speed / torque.
50. Why coupling is used?	Coupling is used to transmit mechanical power of electric motor (Driver) to driven at same speed / torque.
51. Why you de-install Electrical Machine from foundation?	Electrical machines are de-installed from foundation to shift them from site to workshop for repair work.
52. What do you mean by safe working condition?	Safe working condition means that: <ol style="list-style-type: none"><li>1- Passage of working area must be clear and have no hurdle in movement of workers/ machinery</li><li>2- Floor of working area must be clean and has no dust, oils, grease spread over the surface</li><li>3- Working area must have adequate light required for type of work performing there.</li><li>4- Working area must have ventilation to avoid suffocation.</li></ol>

<b>This formative assessment relates to the training programme:</b> Electrical Machine Winding Technician	CS Code: 0713001128	Level: 2	Version:
<b>Module Title:</b> Ensure Electrical Isolation of Machine	<b>Assessment Date (DD/MM/YY):</b>		

Candidate Details	Name: .....  Registration/Roll Number: .....
Guidance for Candidate	<p><b>To meet the required standard of assessment, you have to complete the following assessment tasks within the given time frame (for practical demonstration &amp; assessment):</b></p> <ul style="list-style-type: none"> <li><b>23. Assessment Task 1:</b> Prepare for Work to Ensure Electrical Isolation of Machine</li> <li><b>24. Assessment Task 2:</b> Wear PPE's</li> <li><b>25. Assessment Task 3:</b> Isolate Machine from Electrical Supply</li> <li><b>26. Assessment Task 4:</b> Perform Tagging of Machine</li> <li><b>27. Assessment Task 5:</b> Document the Electrical Isolation of Machine</li> <li><b>28. Assessment Task 6:</b> Communicate with machine operator and other personnel</li> <li><b>29. Assessment Task 7:</b> De-Energize Machine</li> </ul> <p><b>And complete:</b></p> <ul style="list-style-type: none"> <li>15. Knowledge assessment test (Written or Oral)</li> <li>16. Portfolios at the time of assessment (if any)</li> </ul>
Minimum Evidence Required	<p><b>During a practical assessment, under observation by an assessor, you will complete:</b></p> <p><b>Assessment Task 1</b></p> <ul style="list-style-type: none"> <li>Performance Criteria 1: Identify the required PPE's</li> <li>Performance Criteria 2: Collect the required PPE's</li> <li>Performance Criteria 3: Identify the required tools and equipment</li> <li>Performance Criteria 4: Collect the required tools and equipment</li> <li>Performance Criteria 5: Ensure functional condition of PPE's/Tools and equipment</li> <li>Performance Criteria 6: Prepare the required tags for isolation</li> </ul> <p><b>Assessment Task 2</b></p> <ul style="list-style-type: none"> <li>Performance Criteria 1: Wear PPE's as per job requirement</li> <li>• Performance Criteria 2: Clean the PPE's after use</li> <li>Performance Criteria 3: Perform proper storing of the PPE's after cleaning</li> </ul>

	<p><b>Assessment Task 3</b></p> <p>Performance Criteria 1: Identify the machine for isolation</p> <p>Performance Criteria 2: Collect the required tools for isolation</p> <p>Performance Criteria 3: Identify the supply Sources/points to be isolated</p> <p>Performance Criteria 4: Identify the supply disconnecting devices</p> <p>Performance Criteria 5: Take on board the concerned department for electrical isolation</p> <p>Performance Criteria 6: Switch off the supply sources</p> <p>Performance Criteria 7: Perform electrical isolation of Machine</p>
	<p><b>Assessment Task 4</b></p> <p>Performance Criteria 1: Collect required tagging</p> <p>Performance Criteria 2: Perform tagging of faulty Machine</p>
	<p><b>Assessment Task 5</b></p> <p>Performance Criteria 1: Enlist the tagged Machines</p> <p>Performance Criteria 2: Document nature of the faults</p> <p>Performance Criteria 3: Record the electrical isolation of machine</p>
	<p><b>Assessment Task 6</b></p> <p>Performance Criteria 1: Identify nature of fault of machine</p> <p>Performance Criteria 2: Diagnose the causes of fault</p> <p>Performance Criteria 3: Communicate nature of fault of machine to operation department</p> <p>Performance Criteria 4: Prepare memo/(MWR) Maintenance Work Request for maintenance of machines</p>
	<p><b>Assessment Task 7</b></p> <p>Performance Criteria 1: Identify the required tools and equipment for De-energize the machine</p> <p>Performance Criteria 2: Collect the required tools and equipment for De-energize the machine</p> <p>Performance Criteria 3: Identify the part of the machine to be De-energize</p> <p>Performance Criteria 4: Perform de-energizing of machine</p>
	<p><b>Portfolios required at the time of assessment (if any) like trainees assignment, Project job etc:</b></p> <p>Performance criteria 1 for the evaluation of portfolio</p> <p>Performance criteria 2 for the evaluation of portfolio</p> <p>Performance criteria 3 for the evaluation of portfolio</p> <p>.....</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)

**(Formative 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	
	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Nature of Activity							
Practical Skill Demonstration			✓		✓		
Knowledge Assessment	✓	✓					
Other Requirement				✓			

Each Assessment Task (with performance criteria)				
Assessment Task 1 : Prepare for Work to ensure Electrical Isolation of Machine		Description of assessment task 1		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Identify the required PPE's			
2	Performance criteria 2: Collect the required PPE's			
3	Performance criteria 3: Identify the required tools and equipment			
4	Performance criteria 4: Collect the required tools and equipment			
5	Performance criteria 5: Ensure functional condition of PPE's/Tools and equipment			
6	Performance criteria 6: Prepare the required tags for isolation			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 2: Wear PPE's		Description of assessment task 2		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance Criteria 1:Wear PPE's as per job requirement			
2	Performance criteria 2: Clean the PPE's after use			
3	Performance Criteria 3:Perform proper storing of the PPE's after cleaning			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		



Assessment Task 3: Isolate Machine from Electrical Supply		Description of assessment task 3		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Identify the machine for isolation			
2	Performance criteria 2: Collect the required tools for isolation			
3	Performance criteria 3: Identify the supply Sources/points to be isolated			
4	Performance criteria 4: Identify the supply disconnecting devices			
5	Performance criteria 5: Take on board the concerned department for electrical isolation			
6	Performance criteria 6: Switch off the supply sources			
7	Performance criteria 7:perform electrical isolation of machine			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 4: Perform Tagging of Machine		Description of assessment task 4		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Collect required tagging			
2	Performance criteria 2: Perform tagging of faulty Machine			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 5: <b>Document the Electrical Isolation of Machine</b>		Description of assessment task 5		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Enlist the tagged Machines			
2	Performance criteria 2: Document nature of the faults			
3	Performance criteria 3: Record the electrical isolation of machine			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 6: Communicate with machine operator and other personnel		Description of assessment task 6		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Identify nature of fault of machine			
2	Performance criteria 2: Diagnose the causes of fault			
3	Performance criteria 3: Communicate nature of fault of machine to operation department			
4	Performance criteria 4: Prepare memo/(MWR) Maintenance Work Request for maintenance of machine			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 7: De-Energize Machine		Description of assessment task 7		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Performance criteria 1: Identify the required tools and equipment for De-energize the machine			
2	Performance criteria 2: Collect the required tools and equipment for De-energize the machine			
3	Performance criteria 3: Identify the part of the machine to be De-energize			
4	Performance criteria 4: Perform de-energizing of machine			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Portfolio(if any)		Description of portfolio		
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	Performance criteria 1			
2	Performance criteria 2			
3	Performance criteria 3			
4	.....			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		



**WRITTEN ASSESSMENT**

Question	Candidate's answer
53. What types of PPEs you need to isolate Electrical Machine from electrical supply?	Following PPEs are required to isolate Electrical Machine from electrical supply: <ul style="list-style-type: none"> <li>○ Safety gloves</li> <li>○ Safety shoes</li> <li>○ Safety helmet</li> <li>○ Safety belt</li> </ul>
54. What do you do to ensure functional condition of PPEs?	I will physically check the PPEs to observe there: <ul style="list-style-type: none"> <li>● Insulation</li> <li>● Hardness</li> <li>● Breakage</li> <li>● Date of expiry</li> </ul>
55. What sequence you will adopt to wear PPEs?	The sequence of wearing is as follows: <ol style="list-style-type: none"> <li>5. Safety shoes</li> <li>6. Safety belt</li> <li>7. Safety helmet</li> <li>8. Safety gloves</li> </ol>
56. What types of tools you need to isolate Electrical Machine from electrical supply??	Following tools equipment are required to isolate Electrical machine from electrical supply: <ul style="list-style-type: none"> <li>● Phase tester</li> <li>● Screw driver set</li> <li>● Combination plier</li> <li>● Clamp on meter</li> <li>● D Rod</li> </ul>
57. Why you tag the machine after electrical isolation?	After electrical isolation, machines are tagged to avoid accidental operation.
58. Why documents regarding electrical isolation Electrical Machine are prepared?	Documents regarding electrical isolation indicate the condition of machine which helps the operator coming in next shift, it also prevent accidental operation.
59. Why we de-energize machine?	Some loads / machines are connected with capacitors and after isolation machine from electrical supply charged capacitors can caused electric shock, that's why we de-energize machine.

**(Summative Assessment)**  
**Instruction Sheet for the Candidate**

<b>Title of Qualification:</b> Electrical Machine Winding Technician	CS Code:	Level: 2	Version:
<b>Competency Standard Title:</b> Maintain Tools / Equipment and Machinery Perform on-site Inspection/testing of machine Carry Out Mechanical De-Installation of Machine Ensure Electrical isolation of Machine	<b>Assessment Date (DD/MM/YY):</b>		
<b>Purpose of Assessment:</b>	<b>Summative Assessment</b>		

Candidate Details	Name: ..... Registration/Roll Number: .....
Guidance for Candidate	<p><b>To meet this standard, you are required to complete the following within the given time frame,4 hours (for practical demonstration &amp; assessment):</b></p> <p><b>Assessment Task:</b>          Perform Electrical Isolation and Mechanical de installation of Faulty Machine</p> <p><b>And complete:</b></p> <ol style="list-style-type: none"> <li>1. Knowledge assessment test (Written or Oral)</li> <li>2. Portfolios at the time of assessment (if any)</li> </ol>

Minimum Evidence Required	Performance Criteria 1. Identify the required tools , equipment & PPE's
	Performance Criteria 2. Check functional condition of the required PPE's/Tools, equipment.
	Performance Criteria 3. Use the required tools equipment and PPE's as per job demand
	Performance Criteria 4. Clean the PPE's after use
	Performance Criteria 5. Perform proper storing of the PPE's after use.
	<b>Performance Criteria 6.</b> Identify the machine for E/isolation and Mechanical de installation
	<b>Performance Criteria 7.</b> Read the data from Name plate of the Machine and record it.
	Performance Criteria 8. Take on board the concerned department for electrical isolation and Mechanical de installation
	<b>Performance Criteria 9.</b> Disconnect the Supply Cables
	<b>Performance Criteria 10.</b> Identify the supply Sources/points to be isolated
	Performance Criteria 11. Identify the supply disconnecting devices
	<b>Performance Criteria 12.</b> Switch off the supply sources
	Performance Criteria 13. Perform electrical isolation
	Performance Criteria 14. Locate the main valve of Pneumatic / hydraulic supply to the machine
	Performance Criteria 15. Shut-off the main valve of Pneumatic / hydraulic supply to the machine
	Performance Criteria 16. Identify parts to be isolated from pneumatic/hydraulic supply
	Performance Criteria 17. Perform isolation of all the pneumatic/hydraulic supplies to the machine
	Performance Criteria 18. Perform dead plugging of all the pneumatic/hydraulic supplies
	Performance Criteria 19. Maintain Record of pneumatic/hydraulic supplies isolation
	Performance Criteria 20. Perform Tagging of the isolated pneumatic/hydraulic supplies
	Performance Criteria 21. Locate the main valve of fuel supply to the machine and close it.
	Performance Criteria 22. Identify parts to be isolated from fuel supplies
	Performance Criteria 23. Perform isolation of all the fuel supplies to the machine
	Performance Criteria 24. Perform dead plugging of all the fuel supplies
	Performance Criteria 25. Maintain Record of fuel supplies isolation
	Performance Criteria 26. Perform Tagging of the isolated fuel supplies
	Performance Criteria 27. Locate the gear box of the machine
	Performance Criteria 28. Perform marking on driver, driven and foundation for proper alignment and placement of parts
	Performance Criteria 29. Perform isolation of Gear Box
	Performance Criteria 30. Record isolation of Gear Box
	<b>Performance Criteria 31.</b> Perform Tagging on Gear Box and driven end
	Performance Criteria 32. Locate pulley of the machine and isolate it
	Performance Criteria 33. Record isolation of pulley
	Performance Criteria 34. Perform Tagging on pulley and its allied parts
	Performance Criteria 35. Locate the parts of the machine to be De-coupled
	Performance Criteria 36. Perform marking on parts to be De-coupled for realignment/readjustment
	Performance Criteria 37. Perform De-coupling of the machine
	Performance Criteria 38. Record De-coupling of the machine
	Performance Criteria 39. Perform Tagging on De-coupled parts of the machine
	Performance Criteria 40. Perform de-installation of machine from foundation
	Performance Criteria 41. Record de-installation of machine

	<b>Performance Criteria 42.</b> Perform de-energizing of machine
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	<p><b>Portfolios required at the time of assessment (if any) like trainees /students projects/Jobs etc.</b></p> <p>Performance criteria 1 for the evaluation of portfolio  Performance criteria 2 for the evaluation of portfolio  Performance criteria 3 for the evaluation of portfolio  .....</p>
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*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:.....

<b>Assessment Summary (to be filled by the assessor)</b>							
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)	
<b>Assessment Task :</b> Perform Electrical Isolation and Mechanical de installation of Faulty Machine.	Description of assessment task

During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Identify the required tools , equipment & PPE's			
2.	Check functional condition of the required PPE's/Tools, equipment.			
3.	Use the required tools equipment and PPE's as per job demand			
4.	Clean the PPE's after use			
5.	Perform proper storing of the PPE's after use.			
6.	Identify the machine for E/isolation and Mechanical de installation			
7.	Read the data from Name plate of the Machine and record it.			
8.	Take on board the concerned department for electrical isolation and Mechanical de installation			
9.	Disconnect the Supply Cables			
10.	Identify the supply Sources/points to be isolated			
11.	Identify the supply disconnecting devices			
12.	Switch off the supply sources			
13.	Perform electrical isolation			
14.	Locate the main valve of Pneumatic / hydraulic supply to the machine			
15.	Shut-off the main valve of Pneumatic / hydraulic supply to the machine			
16.	Identify parts to be isolated from pneumatic/hydraulic supply			
17.	Perform isolation of all the pneumatic/hydraulic supplies to the machine			
18.	Perform dead plugging of all the pneumatic/hydraulic supplies			
19.	Maintain Record of pneumatic/hydraulic supplies isolation			
20.	Perform Tagging of the isolated pneumatic/hydraulic supplies			
21.	Locate the main valve of fuel supply to the machine and close it.			
22.	Identify parts to be isolated from fuel supplies			



23.	Perform isolation of all the fuel supplies to the machine			
24.	Perform dead plugging of all the fuel supplies			
25.	Maintain Record of fuel supplies isolation			
26.	Perform Tagging of the isolated fuel supplies			
27.	Locate the gear box of the machine			
28.	Perform marking on driver, driven and foundation for proper alignment and placement of parts			
29.	Perform isolation of Gear Box			
30.	Record isolation of Gear Box			
31.	Perform Tagging on Gear Box and driven end			
32.	Locate pulley of the machine and isolate it.			
33.	Record isolation of pulley			
34.	Perform Tagging on pulley and its allied parts			
35.	Locate the parts of the machine to be De-coupled			
36.	Perform marking on parts to be De-coupled for realignment/readjustment			
37.	Perform De-coupling of the machine			
38.	Record De-coupling of the machine			
39.	Perform Tagging on De-coupled parts of the machine			
40.	Perform de-installation of machine from foundation			
41.	Record de-installation of machine			
42.	Perform de-energizing of machine			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Portfolio(if any)		Description of portfolio			
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	Performance criteria 1				
2	Performance criteria 2				
3	Performance criteria 3				
4	.....				
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>			



## WRITTEN ASSESSMENT

Question	Candidate's answer
1. Define Calibration of instruments?	Calibration means to remove the zero error from the instruments.
2. Describe function of megger?	Megger is used to measure mega ohms parameters.
3. Why the supply sources are needed to be switched off before performing electric isolation of machine.	The supply sources are disconnected before performing the electrical isolation of machine so that to avoid any electrical shocks / damage.
4. Why coupling is used with motors?	A coupling is a device used to connect two shafts together at their ends for the purpose of transmitting power. Couplings do not normally allow disconnection of shafts during operation, however there are torque limiting couplings which can slip or disconnect when some torque limit is exceeded.
5. What are the types of shaft coupling?	A shaft coupling may be either: <ul style="list-style-type: none"> <li>• Rigid</li> <li>• Flexible</li> </ul>
6. How electrical isolation is achieved?	Electrical isolation is achieved using a mechanical switch that isolates a section of a circuit from the main electrical power system as and when required.
7. Why is electrical isolation important?	We use isolation to prevent the transfer of high or hazardous voltages between circuits. We typically block these voltages using isolation for safety reasons and protection from electric shock, but also to block high common mode voltage present in our signals which can prevent its measurement and damage equipment.
8. What is isolation certificate?	An isolation certificate provides the details for the effective management of hazards in the work place. You can also use isolation certificates as a method of communication between the personnel who are responsible for the operation of the plant and the personnel who plan and carry out the isolation activities.
9. What is safe isolation in electrical?	Safe isolation has long been a procedure carried out by a competent person in order to safely isolate electrical circuits or equipment before electrical work is undertaken.
10. Why electrical isolation is required?	Electrical isolation is required to prevent damage to either electrical circuit when one of them is under fault conditions. It is also done to isolate high voltage and low voltage circuits.

