Self-Assessment Checklist

Candidate Name	
Registration No.	
Qualification	Mining Process Technology
Competency Standards	Evaluate rock mechanics and ground control
Assessment Task	Perform the following to evaluate the rock properties 1) Evaluate the mechanical properties of rock 2) Perform geological services *Note: Assessor should provide lab apparatus and equipment as required for the assessment.*

I can……..

Performance Criteria	**Yes**	**No**
1. Identify the mechanical properties of rock (brittle, ductile)	☐	☐
2. Carry out Tri-axial test (to bear load strength of rock material)	☐	☐
3. Calculate Unconfined compressive strength (UCS) (to find the compressive strength of rock material)	☐	☐
4. Carry out Ring shear test (gives shear strength of rock as a function of confining pressure)	☐	☐
5. Carry out Split tensile test/Brazilian test (tensile strength of material e.g., Concrete and rock like material)	☐	☐
6. Perform Beam bending test for flexure / flexure test (rock specimen is subjected to bending till failure occurs)	☐	☐
7. Prepare rock sample for microscopy	☐	☐
8. Perform petrography of given sample	☐	☐

Candidate's Signature_____ Assessor's Signature_____

Date: _____

Instruction Sheet for the Candidate

Qualification	National Vocational Certificate level 1 to 5, Mining Process Technology
Competency Standard(s)	Evaluate rock mechanics and ground control

Candidate Details	Name_____ Registration/Roll Number_____
Guidance for Candidate	**To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):** Perform the following to evaluate the rock properties 1) Evaluate the mechanical properties of rock 2) Perform geological services *Note: Assessor should provide lab apparatus and equipment as required for the assessment.*
Time:180 mins	During a practical assessment, under observation by an assessor, you are required to demonstrating the following criteria: 1. Identify the mechanical properties of rock (brittle, ductile) 2. Carry out Tri-axial test (to bear load strength of rock material) 3. Calculate Unconfined compressive strength (UCS) (to find the compressive strength of rock material) 4. Carry out Ring shear test (gives shear strength of rock as a function of confining pressure) 5. Carry out Split tensile test/Brazilian test (tensile strength of material e.g., Concrete and rock like material) 6. Perform Beam bending test for flexure / flexure test (rock specimen is subjected to bending till failure occurs) 7. Prepare rock sample for microscopy 8. Perform petrography of given sample
Minimum Evidence Required	

Assessors Judgment Guide

Qualification	National Vocational Certificate level 1 to 5, Mining Process Technology
Competency Standard(s)	Evaluate rock mechanics and ground control
Candidate Details	Name: _____ Registration/Roll Number: _____Signature: _____
Assessment Outcome	**COMPETENT** ☐ **NOT YETCOMPETENT** ☐ **Name of the Assessor**_____**Assessor's code:** _____ **Signature:** _____

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

Observation Checklist

Assessment Task	Perform the following to evaluate the rock properties 1) Evaluate the mechanical properties of rock 2) Perform geological services *Note: Assessor should provide lab apparatus and equipment as required for the assessment.*

During the practical assessment, candidate demonstrated the following:		**Yes**	**No**	**Remarks**
1.	Identified the mechanical properties of rock (brittle, ductile)			
2.	Carried out Tri-axial test (to bear load strength of rock material)			
3.	Calculated Unconfined compressive strength (UCS) (to find the compressive strength of rock material)			
4.	Carried out Ring shear test (gives shear strength of rock as a function of confining pressure)			
5.	Carried out Split tensile test/Brazilian test (tensile strength of material e.g., Concrete and rock like material)			
6.	Performed Beam bending test for flexure / flexure test (rock specimen is subjected to bending till failure occurs)			
7.	Prepared rock sample for microscopy			
8.	Performed petrography of given sample			
Competent ☐		**Not Yet Competent** ☐		

Feedback to the Candidate
Candidate's Signature_____**Assessor's Signature**_____