

Assessment Evidence Guide

For

“Crush Plant Site Manager”

Level-5

(Summative Assessment)

Paper-1



**National Vocational & Technical
Training Commission**

Title of Qualification: National Vocational Certificate Level 5 in Crush Plant Technology “Crush Plant Site Manager”	CS Code:	Level: 5	Version: 01
Competency Standard Title: Manage Safety at Crushing Plant Site Apply and Testing Basic Electronic Components Perform Sampling of Crushing Material Perform Testing of Stones before crushing Perform Quality Test on Coarse Aggregates Manage and Supervise the Job Activities	Assessment Date (DD/MM/YY): Assessment Time: 5 hrs.		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):</p> <p>Assessment Task 1: Candidate is required to conduct inspection of crushing plant, collect samples, conduct sieve test, flaky and elongation test and develop inspection report as per instructions given by assessor.</p> <p>Assessment Task 2: Candidate is required to test and diagnose faults in electronics components of crushing plants as per requirement given by assessor.</p> <p>And complete:</p> <ol style="list-style-type: none"> Knowledge assessment test (Written or Oral) Portfolios at the time of assessment (if any)
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1</p> <p>Performance Criteria 1: Collect required quantity of aggregates samples as per sampling plan</p> <p>Performance Criteria 2: Take photos/snaps of sampling sites and samples.</p> <p>Performance Criteria 3: Perform sample preparations(washing, weighing, & sieving) in required quantity of material</p> <p>Performance Criteria 4: Seal the sample & sub-samples in the presence of witnesses</p> <p>Performance Criteria 5: Complete the sampling document; fill in the sample date, time, and weight/volume, sample ID, preservative used, sample location and sampler name etc.</p> <p>Performance Criteria 6: Select the appropriate Sieve Set as per requirements</p> <p>Performance Criteria 7: Carry out the sieving procedure as per standard guidelines</p> <p>Performance Criteria 8: Compute the results of the test</p> <p>Performance Criteria 9: Record the test result</p> <p>Performance Criteria 10: Prepare test samples</p> <p>Performance Criteria 11: Select the apparatus to be used in Flaky & Elongated Particles test</p> <p>Performance Criteria 12: Conduct the test</p>

	<p>Performance Criteria 13: Compute the results of the test</p> <p>Performance Criteria 14: Record the test result</p> <p>Performance Criteria 15: Check the actions taken for rectification of snag list.</p> <p>Performance Criteria 16: Write the inspection observations and findings</p> <p>Performance Criteria 17: Implement health and safety practices and ensure it is followed by subordinates</p> <p>Performance Criteria 18: Use defined safe work practices and personal protective equipment to ensure personal safety at the workplace</p>
	<p>Assessment Task 2</p> <p>Performance Criteria 1: Check connecting pins of sensor/transducer</p> <p>Performance Criteria 2: Apply required Power to transducer/sensor power pins</p> <p>Performance Criteria3: Connect signal pin with multi-meter.</p> <p>Performance Criteria 4: Write down the obtained data.</p> <p>Performance Criteria 5: Check the power supply</p> <p>Performance Criteria 6: Check cables connections</p> <p>Performance Criteria 7: Check the status of LEDs on Power Supply, CPU, I/O Cards</p> <p>Performance Criteria 8: Contact resistance, signal electrical parameters.</p> <p>Performance Criteria 9: Put PLC in test mode</p> <p>Performance Criteria 10: Check protective devices</p> <p>Performance Criteria 11: Check emergency stop buttons</p> <p>Performance Criteria 12: Checks connections points of input and output devices</p> <p>Performance Criteria 13: Test the software</p> <p>Performance Criteria 14: Practice of Personal Protective Equipment (PPE)</p>

	<p>Portfolios required at the time of assessment (if any) for</p> <ul style="list-style-type: none"> • Folder includes Safety related reports • Folder includes testing of stones before crushing <p>Performance Criteria 1: Provide first aid treatment if required</p> <p>Performance Criteria 2: Collect all information related to the incident/accident at workplace</p> <p>Performance Criteria 3: Perform risk assessment and hazard identification at the workplace</p> <p>Performance Criteria 4: Develop the incident report along with corrective measures to avoid future accidents</p> <p>Performance Criteria 5: Follow standard procedure related to vehicle safety at workplace</p> <p>Performance Criteria 6: Conduct emergency response drill for enhancing importance of safety among the workers as per the policy of organization</p> <p>Performance Criteria 7: Calculate percentage of absorption</p> <p>Performance Criteria 8: Collect sample</p> <p>Performance Criteria 9: Differentiate sample weight</p> <p>Performance Criteria 10: Dip sample in water for specified time</p> <p>Performance Criteria 11: Record test data in register</p> <p>Performance Criteria 12: Drop sample from specified height on hard surface</p> <p>Performance Criteria 13: Collect samples in required numbers and weight</p> <p>Performance Criteria 14: Put sample in drum in specified numbers</p> <p>Performance Criteria 15: Clean & Weigh the samples</p> <p>Performance Criteria 16: Compute result percentage</p> <p>Performance Criteria 17: Apply Capping</p> <p>Performance Criteria 18: Fix stone in Compressive testing machine</p> <p>Performance Criteria 19: Apply load at convenient rate on fixed sample</p> <p>Performance Criteria 20: Note crushing strength</p> <p>Performance Criteria 21: Maintain record in register</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:.....

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

Assessment Task 1		Description of Assessment Task 1		
		Conduct inspection of crushing plant, collect samples, conduct test and develop inspection report as per instructions given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Collect required quantity of aggregates samples as per sampling plan			
2.	Take photos/snaps of sampling sites and samples.			
3.	Perform sample preparations (washing, weighing & sieving) in required quantity of material			
4.	Seal the sample & sub-samples in the presence of witnesses			
5.	Complete the sampling document; fill in the sample date, time, and weight/volume, sample ID, preservative used, sample location and sampler name etc.			
6.	Select the appropriate Sieve Set as per requirements			
7.	Carry out the sieving procedure as per standard guidelines			
8.	Compute the results of the test			
9.	Record the test result			
10.	Prepare test samples			
11.	Select the apparatus to be used in Flaky & Elongated Particles test			
12.	Conduct the test			
13.	Compute the results of the test			
14.	Record the test result			
15.	Check the actions taken for rectification of snag list.			
16.	Write the inspection observations and findings			
17.	Implement health and safety practices and ensure it is followed by subordinates			
18.	Use defined safe work practices and personal protective equipment to ensure personal safety at the workplace			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Each Assessment Task (with performance criteria)				
Assessment Task 2		Description of Assessment Task 2		
		Test and diagnose faults in electronics components of crushing plants as per the requirement given by assessor.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Check connecting pins of sensor/transducer			
2.	Apply required Power to transducer/sensor power pins.			
3.	Connect signal pin with multi-meter.			
4.	Write down the obtained data.			
5.	Check cables connections			
6.	Check the power supply			
7.	Check the status of LEDs on Power Supply, CPU, I/O Cards			
8.	Contact resistance, signal electrical parameters.			
9.	Put PLC in test mode			
10.	Check protective devices			
11.	Check emergency stop buttons			
12.	Checks connections points of input and output devices			
13.	Test the software			
14.	Practice of Personal Protective Equipment (PPE)			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Portfolio		Description of Portfolio		
		<ul style="list-style-type: none"> Folder includes Safety related reports Folder includes testing of stones before crushing 		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Provide first aid treatment if required			
2.	Collect all information related to the incident/accident at workplace			
3.	Perform risk assessment and hazard identification at the workplace			
4.	Develop the incident report along with corrective measures to avoid future accidents			
5.	Follow standard procedure related to vehicle safety at workplace			
6.	Conduct emergency response drill for enhancing importance of safety among the workers as per the policy of organization			
7.	Calculate percentage of absorption			
8.	Collect sample			
9.	Differentiate sample weight			
10.	Dip sample in water for specified time			
11.	Record test data in register			
12.	Drop sample from specified height on hard surface			
13.	Collect samples in required numbers and weight			
14.	Put sample in drum in specified numbers			
15.	Clean & Weigh the samples			
16.	Compute result percentage			
17.	Apply Capping			
18.	Fix stone in Compressive testing machine			
19.	Apply load at convenient rate on fixed sample			
20.	Note crushing strength			
21.	Maintain record in register			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Written Assessment Guide

For

“Crush Plant Site Manager”

**Level -5
(Paper-1)**



**National Vocational & Technical
Training Commission**

Title of Qualification: National Vocational Certificate Level 5 in Crush Plant Technology “Crush Plant Site Manager”	CS Code:	Level:5	Version:
Competency Standard Title: Apply and Testing the Basic Electronics Components Perform Sampling of Crushing Material Perform Testing of Stones before crushing Perform Quality Test on Coarse Aggregates Manage and Supervise the Job Activities	Assessment Date (DD/MM/YY): Assessment Time: 30 min		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Assessors Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

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

Title of Qualification: National Vocational Certificate Level 5 in Crush Plant Technology “Crush Plant Site Manager”	CS Code:	Level:5	Version:
Competency Standard Title: Apply and Testing the Basic Electronics Components Perform Sampling of Crushing Material Perform Testing of Stones before crushing Perform Quality Test on Coarse Aggregates Manage and Supervise the Job Activities	Assessment Date (DD/MM/YY): Assessment Time: 30 min		

WRITTEN ASSESSMENT

Question	Candidate's answer
1. Give examples of transducer	
2. Describe sensors.	
3. Enlist the types of sensors	
4. Explain sampling rules for various materials.	
5. What are the major types of aggregates according to size?	
6. Define environmental hazard.	
7. What is smoke detector?	
8. Define Porosity.	
9. Define Critical Path.	
10. Describe classification of aggregates according to Shape?	
11. Characteristics of graded aggregates?	

ANSWER KEY

Sr.	Answers
1.	Loud speakers, microphones, position, thermometers, antenna & pressure sensor.
2.	A sensor is a device used to measure a property, such as pressure, position, temperature, or acceleration, and respond with feedback.
3.	<ol style="list-style-type: none"> 1. Pressure sensor. 2. Thermal sensor 3. Proximity sensor 4. Optical sensor 5. Position sensor 6. Flow sensor 7. Magnetic sensor 8. Electric sensor
4.	no. of samples, witnesses and sealing of samples etc.
5.	<ol style="list-style-type: none"> 1. Rounded aggregates 2. Irregular or partly rounded aggregates 3. Angular aggregates 4. Flaky aggregates 5. Flaky and elongated aggregates
6.	An environmental hazard is any condition, process, or state adversely affecting the environment.
7.	A fire-protection device that automatically detects and gives a warning of the presence of smoke.
8.	Porosity is the percentage of void space in a stone
9.	It is the longest path (i.e. path with the longest duration) from project start to finish.
10.	<ol style="list-style-type: none"> 1. Rounded aggregates 2. Irregular or partly rounded aggregates 3. Angular aggregates 4. Flaky aggregates 5. Elongated aggregates 6. Flaky and elongated aggregates
11.	<ol style="list-style-type: none"> 1. Clean & free from coatings of clay and silt. 2. It should not contain any organic matter. 3. Free from hygroscopic salt. 4. Chemically inert. 5. Strong and durable.

Assessment Evidence Guide

For

“Crush Plant Site Manager”

Level-5

(Summative Assessment)

Paper-2



**National Vocational & Technical
Training Commission**

Title of Qualification: National Vocational Certificate Level 5 in Crush Plant Technology "Crush Plant Site Manager"	CS Code:	Level: 5	Version: 01
Competency Standard Title: Plan for Owning and Operating Crushing Plant Plan a Project in Primavera P6 Install & Commissioning of Crushing Plant Develop Entrepreneurial Skills Practice Professionalism	Assessment Date (DD/MM/YY): Assessment Time: 4 hrs.		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):</p> <p>Assessment Task 1: Candidate is required to prepare a project plan using Primavera, including:</p> <ul style="list-style-type: none"> • WBS • CPM/PERT <p>Note: Job description, duration and sequence must be provided by assessor</p> <p>Assessment Task 2: Candidate is required to calculate the probable cost per hour of owning and operating 25 cubic meter capacity bottom dump wagon truck with six rubber tires using following data:</p> <ul style="list-style-type: none"> • Cost delivered including freight and taxes = Rs. 6,6253,00 • Useful life 5 years – 2000 hours /year – with no salvage value (Use any method of depreciation) • Life of tires is 5000 hours • Repair of tires 15% of tire depreciation • Cost of tires Rs. 240,000 • Maintenance and repair is 50% of depreciation • Fuel cost is 16 liters per hour@ Rs.118 per liter. <p>And complete:</p> <ol style="list-style-type: none"> 3. Knowledge assessment test (Written or Oral) 4. Portfolios at the time of assessment (if any)
Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1</p> <p>Performance Criteria 1: Load & unload primavera P6 Software.</p> <p>Performance Criteria 2: Prepare interface of software</p> <p>Performance Criteria 3: Customize P6 Screen Layout</p> <p>Performance Criteria 4: Create WBS of project in Primavera.</p> <p>Performance Criteria 5: Add Project in Primavera</p> <p>Performance Criteria 6: Display Gantt Chart</p> <p>Performance Criteria 7: Create Activities of project in Primavera.</p> <p>Performance Criteria 8: Create Relationships between activities of project in Primavera.</p> <p>Performance Criteria 9: Create Schedule of activities of project in Primavera.</p>

	<p>Performance Criteria 10: Add constraints of activities of project in Primavera.</p> <p>Performance Criteria 11: Create Calendar for activities of project in Primavera.</p> <p>Performance Criteria 12: Assign Calendars to activities of project in Primavera.</p> <p>Performance Criteria 13: Add Resources to activities of project in Primavera.</p> <p>Performance Criteria 14: Assign Resources of activities of project in Primavera.</p> <p>Performance Criteria 15: Add Cost of activities of project in Primavera.</p> <p>Performance Criteria 16: Analyze Resources of activities of project in Primavera.</p> <p>Performance Criteria 17: Perform Baseline process for Project.</p> <p>Performance Criteria 18: Status the Project</p> <p>Performance Criteria 19: Mitigate the schedule</p>
	<p>Assessment Task 2</p> <p>Performance Criteria 1: Compute the depreciation by selected formula</p> <p>Performance Criteria 2: Calculate the hourly and annual maintenance cost</p> <p>Performance Criteria 3: Calculate the total operating cost</p> <p>Performance Criteria 4: Compute productivity of crushing plant ,wheel loader and dumper truck</p> <p>Performance Criteria 5: Gather the data about initial cost</p> <p>Performance Criteria 6: Gather the calculated miscellaneous cost</p> <p>Performance Criteria 7: Compute the total ownership cost</p>

	<p>Portfolios required at the time of assessment (if any) for</p> <ul style="list-style-type: none"> • File includes evidence about commission a crushing plant according to installation manual • Report on Marketing Plan • File includes Intern ship letter <p>Performance Criteria 1: Interpret the Installation drawing through instruction manual</p> <p>Performance Criteria 2: Identify the risk of falling hazards.</p> <p>Performance Criteria 3: Inspect visually for any impact damage and leakage of oils etc.</p> <p>Performance Criteria 4: Coordinate with rigger for erection of plant units as per Installation drawings.</p> <p>Performance Criteria 5: Align the conveyors, hoppers and crusher as per standards.</p> <p>Performance Criteria 6: Stabilize the crusher by raising & lowering the legs and tighten the all bolts.</p> <p>Performance Criteria 7: Fit the clips & pins to secure the feed hopper</p> <p>Performance Criteria 8: Position the mast into working position</p> <p>Performance Criteria 9: Position the dust suppression bucket</p> <p>Performance Criteria 10: Install bracing across the feed conveyor</p> <p>Performance Criteria 11: Configure the plant</p> <p>Performance Criteria 12: View the engine information</p> <p>Performance Criteria 13: Carryout machine settings</p> <p>Performance Criteria 14: Set fuel levels</p> <p>Performance Criteria 15: Set track operations</p> <p>Performance Criteria 16: Turn the battery isolation switch to on position</p> <p>Performance Criteria 17: Turn ignition key to the first run position</p> <p>Performance Criteria 18: Press emergency stop reset button, flashing for few seconds and alarm will start</p> <p>Performance Criteria 19: Turn the ignition key to start position and release it slowly</p> <p>Performance Criteria 20: Perform the pre-operative checks</p> <p>Performance Criteria 21: Inspect the Material buckets</p> <p>Performance Criteria 22: Inspect the electric and electronic circuits</p> <p>Performance Criteria 23: Start the engine</p> <p>Performance Criteria 24: Report the malfunctions if any</p> <p>Performance Criteria 25: Shutdown the machine</p>
	<p>Performance Criteria 26: Make a marketing plan for the business including product, price, placement, promotion, people, packaging and positioning Include the information of marketing plan in the business plan</p> <p>Performance Criteria 27: Make Professional Portfolio for industry</p> <p>Performance Criteria 28: Develop Digital Portfolio for industry</p> <p>Performance Criteria 29: Perform Internship in Industry</p> <ul style="list-style-type: none"> • Fill the Performa of Internship • Report the performance of internship

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			✓	✓			
Knowledge Assessment	✓	✓					
Other Requirement							
Each Assessment Task (with performance criteria)							

Assessment Task 1		Description of Assessment Task 1 Prepare a project plan using Primavera, including: <ul style="list-style-type: none"> • WBS • CPM/PERT 		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Load & unload primavera P6 Software.			
2.	Prepare interface of software			
3.	Customize P6 Screen Layout			
4.	Create WBS of project in Primavera.			
5.	Add Project in Primavera			
6.	Display Gantt Chart			
7.	Create Activities of project in Primavera.			
8.	Create Relationships between activities of project in Primavera.			
9.	Create Schedule of activities of project in Primavera.			
10.	Add constraints of activities of project in Primavera.			
11.	Create Calendar for activities of project in Primavera.			
12.	Assign Calendars to activities of project in Primavera.			
13.	Add Resources to activities of project in Primavera.			
14.	Assign Resources of activities of project in Primavera.			
15.	Add Cost of activities of project in Primavera.			
16.	Analyze Resources of activities of project in Primavera.			
17.	Perform Baseline process for Project.			
18.	Status the Project			
19.	Mitigate the schedule			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Assessment Task 2		Description of Assessment Task 2	
		<p>Calculate the probable cost per hour of owning and operating 25 cubic meter capacity bottom dumb wagon truck with six rubber tires using following data:</p> <ul style="list-style-type: none"> • Cost delivered including freight and taxes = Rs. 6,6253,00 • Useful life 5 years – 2000 hours /year – with no salvage value (Use any method of depreciation) • Life of tires is 5000 hours • Repair of tires 15% of tire depreciation • Cost of tires Rs. 240,000 • Maintenance and repair is 50% of depreciation • Fuel cost is 16 liters per hour@ Rs.118 per liter. 	
During the practical assessment, candidate demonstrated the following:		Yes	No
1.	Compute the depreciation by selected formula		
2.	Calculate the hourly and annual maintenance cost		
3.	Calculate the total operating cost		
4.	Compute productivity of crushing plant, wheel loader and dumper truck.		
5.	Gather the data about initial cost		
6.	Gather the calculated miscellaneous cost		
7.	Compute the total ownership cost		
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>	

Portfolio		Description of Portfolio		
		File includes evidence about commission a crushing plant according to installation manual ✓ Report on Marketing Plan ✓ File includes Intern ship letter		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Interpret the Installation drawing through instruction manual			
2.	Identify the risk of falling hazards.			
3.	Inspect visually for any impact damage and leakage of oils etc.			
4.	Coordinate with rigger for erection of plant units as per Installation drawings.			
5.	Align the conveyors, hoppers and crusher as per standards.			
6.	Stabilize the crusher by raising & lowering the legs and tighten the all bolts.			
7.	Fit the clips & pins to secure the feed hopper			
8.	Position the mast into working position			
9.	Position the dust suppression bucket			
10.	Install bracing across the feed conveyor			
11.	Configure the plant			
12.	View the engine information			
13.	Carryout machine settings			
14.	Set fuel levels			
15.	Set track operations			
16.	Turn the battery isolation switch to on position			
17.	Turn ignition key to the first run position			
18.	Press emergency stop reset button, flashing for few seconds and alarm will start			
19.	Turn the ignition key to start position and release it slowly			
20.	Perform the pre-operative checks			
21.	Inspect the Material buckets			
22.	Inspect the electric and electronic circuits			
23.	Start the engine			
24.	Report the malfunctions			
25.	Shutdown the machine			
26.	Make a marketing plan for the business including product, price, placement, promotion, people, packaging and positioning Include the information of marketing plan in the business plan			
27.	Make Professional Portfolio for industry			
28.	Develop Digital Portfolio for industry			
29.	Perform Internship in Industry Fill the Performa of Internship Report the performance of internship			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Written Assessment Guide
For
“Crush Plant Site Manger”
Level -5
(Paper-2)



**National Vocational & Technical
Training Commission**

Title of Qualification: National Vocational Certificate Level 5 in Crush Plant Technology “Crush Plant Site Manager”	CS Code:	Level:5	Version:
Competency Standard Title: Plan for Owning and Operating Crushing Plant Plan a Project in Primavera P6 Install & Commissioning of Crushing Plant Develop Entrepreneurial Skills Practice Professionalism	Assessment Date (DD/MM/YY): Assessment Time: 30 min		

Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Assessors Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

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

Title of Qualification: National Vocational Certificate Level 5 in Crush Plant Technology "Crush Plant Site Manager"	CS Code:	Level:5	Version:
Competency Standard Title: Plan for Owning and Operating Crushing Plant Plan a Project in Primavera P6 Install & Commissioning of Crushing Plant Develop Entrepreneurial Skills Practice Professionalism	Assessment Date (DD/MM/YY): Assessment Time: 30 min		

WRITTEN ASSESSMENT

Question	Candidate's answer
1. Enlist different operating costs.	
2. What do you mean by useful life of equipment?	
3. What is a Gantt chart in Primavera?	
4. What does WBS, CPM, PERT stands for in Primavera?	
5. Flywheel means in crushing process:	
6. Nip angle means in crushing process:	
7. Enlist major types of portfolio?	
8. What is internship?	

ANSWER KEY

Sr.	Answers
1.	a. Repair and maintenance cost b. Fuel cost c. Tire cost d. Cost of lubricating oil filter and grease e. Equipment operating wages
2.	It is the time period for which equipment remains useful.
3.	The Primavera P6 Gantt chart is a powerful visualization of the project schedule. It tabulates the late start and late finish of activities.
4.	Work Breakdown Structure, Critical Path Method ,Program Evaluation and review Technique
5.	Large wheels used as part of the crusher drive and to store inertia.
6.	Inclusive angle between jaw plates indicative of the crushers' ability to crush and draw rock.
7.	Working portfolio ,Display portfolio ,Assessment portfolio
8.	An internship is an opportunity employer offer to students interested in gaining work experience in specific industries, and an important step to building a solid career.