







# **GENERATOR MECHANIC**



**ASSESSMENT PACKAGE** 

National Vocational Certificate Level 3

Version 1 - November, 2019





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# **GENERATOR MECHANIC**



ASSESSMENT PACKAGE
National Vocational Certificate Level 3

Version 1 - November, 2019

Title of Qualification:	CS Code:	Level:	Version:
National Vocational Certificate level 3,	071300622	3	1 (2019)
In Generator Mechanic			
Competency Standard Title:	Assessment Da	ate (DD/MM/YY	·):
Carryout Basic Electrical Installation			
(Alternating Current-AC)			

Candidate Details	Name  Registration/Roll Number
Guidance for Candidate	To meet this standard, you are required to complete the following tasks within 40 min timeframe:  1. Assessment Task 1: Lay cables 2. Assessment Task 2: Perform Single-phase Connection 3. Assessment Task 3: Perform Three phase Connection 4. Assessment Task 4: Perform Basic Electrical wiring 5. Assessment Task 5: Conduct wiring Test  And complete:  1. Knowledge assessment test (Written or Oral) 2. Portfolios at the time of assessment (if any)
Minimum Evidence Required	During a practical assessment, under observation by an assessor, you will complete:  Task 1: Lay cables Performance Criteria 1: Interpret electrical drawing/document Performance Criteria 2: Identify cables Performance Criteria 3: Lay cables Performance Criteria 4: Perform earthing  Task 2: Perform single-phase Connection Performance Criteria 1: Select cable gauge Performance Criteria 2: Select cables colors Performance Criteria 3: Connect cables Performance Criteria 4: Insulate Joints  Task 3: Perform three phase Connection Performance Criteria 1: Select cable Gauge Performance Criteria 3: Connect cables Performance Criteria 4: Insulate Joints

CS Code:	Level:	Version:
071300622	3	1 (2019)
Assessment Da	ate (DD/MM/YY	):
	071300622	

Candidate Details	Name  Registration/Roll Number
Guidance for Candidate	To meet this standard, you are required to complete the following tasks within 40 min timeframe:  1. Assessment Task 1: Lay cables 2. Assessment Task 2: Perform Single-phase Connection 3. Assessment Task 3: Perform Three phase Connection 4. Assessment Task 4: Perform Basic Electrical wiring 5. Assessment Task 5: Conduct wiring Test  And complete:  1. Knowledge assessment test (Written or Oral) 2. Portfolios at the time of assessment (if any)
Minimum Evidence Required	During a practical assessment, under observation by an assessor, you will complete:  Task 1: Lay cables Performance Criteria 1: Interpret electrical drawing/document Performance Criteria 2: Identify cables Performance Criteria 3: Lay cables Performance Criteria 4: Perform earthing  Task 2: Perform single-phase Connection Performance Criteria 1: Select cable gauge Performance Criteria 2: Select cables colors Performance Criteria 3: Connect cables Performance Criteria 4: Insulate Joints  Task 3: Perform three phase Connection Performance Criteria 1: Select cable Gauge Performance Criteria 3: Connect cables Performance Criteria 4: Insulate Joints

#### Task 4: Perform Basic Electrical wiring

Performance Criteria 1: Measure cables as per requirement

Performance Criteria 2: Connect cables Performance Criteria 3: Perform joints Performance Criteria 4: Insulate Joints

#### **Task 5: Conduct wiring Test**

Performance Criteria 1: Operate multi-meter for voltage and current

Performance Criteria 2: Perform continuity test Performance Criteria 3: Perform polarity test Performance Criteria 4: Perform earthing test Performance Criteria 5: Perform insulation test Performance Criteria 6: Record test results

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

Performance criteria for the evaluation of portfolio:

Submit log book or activity record (practical journal, project, pictures etc.) completed during the training.

**Assessors Judgment Guide** (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

## 071300622 Carryout Basic Electrical Installation (Alternating Current-AC)

Candidate Details	Name:Registration/Roll Number:							
Assessment Outcome	COMPETENT ☐  Assessor Name:  Assessor Signature:							
	Assessor signature.							
	Δεερει	mont S		ry (to h		hy the	assessor)	
P	Activity	Henr 3		Method		by the		esult
Nature of Activity		Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill	Demonstration							
Knowledge As	ssessment							
Other Require	ement							
Feedback to	o the candidate on a	assess	ment.					
Candidate Signature Assessor Signature								

Asses	ssment Task 1	Lay cables				
•	g the practical asses nstrated the followin	•	e	Yes	No	Remarks
1.	Performance Criteri drawing/document	a 1: Interpreted ele	ectrical			
2.	Performance Criteri	a 2: Identified cab	les			
3.	Performance Criteri	a 3: Laid cables				
4.	Performance Criteri	a 4: Performed ea	ırthing			
Comp	etent 🗆		Not Yet Compe	etent		
Asse:	ssment Task 2	Perform single	-phase Connecti	ion		
	ng the practical ass	•	idate	Yes	No	Remarks
1	Performance Criteri	a 1: Selected cabl	le gauge			
2	Performance Criteri	a 2: Selected cabl	les colors			1
3	Performance Criteri	a 3: Connected ca	ables			1
4	Performance Criteri	a 4: Insulated Joir	nts			1
Comp	 petent □		Not Yet Com	petent		, L
Asses	ssment Task 3	Perform three p	phase Connectio	on		
	ng the practical ass constrated the follow	· ·	idate	Yes	No	Remarks
1	Performance Criteri	a 1: Selected cabl	le Gauge			
2	Performance Criteri	a 2: Selected cabl	les colors			1
3	Performance Criteri	a 3: Connected the	e cables			_
4	Performance Criteri	a 4: Insulated the	Joints			_
Comp	oetent 🗆		Not Yet Com	petent		
Asses	ssment Task 4	Perform Basic	Electrical wiring	j		
·						
3	g the practical assense	·	date	Yes	No	Remarks
1	Performance Criteria requirement		oles as per			
2	Performance Criteria	a 2: Connected ca	bles			
3	Performance Criteria	a 3: Performed joir	nts			
4	Performance Criteria	•				-
Comp			Not Yet Comp	etent		<u></u>

Asses	ssment Task 5	Conduct wiring T	est			
· ·	During the practical assessment, candidate demonstrated the following:				No	Remarks
1	Performance Criteria 1: Operated multi-meter for voltage and current					
2	Performance Criteria 2: Performed continuity test					]
3	Performance Criteria 3: Performed polarity test					]
4	Performance Criteria 4: Performed earthing test					
5	Performance Criteria 5: Performed insulation test					]
6	Performance Criteria 6: Recorded test results					]
Comp	etent 🗆		Not Yet Comp	petent		

Portfo	lio (if any)	Description of	of portf	olio	
Curren	nt□ Sufficient □ Authent	c□ Valid □		Relia	able 🗆
Portfolio meet the following performance standards:  Yes No Remarks				Remarks	
Performance criteria for the evaluation of portfolio: Submit log book or activity record (practical journal, project, pictures etc.) completed during the training.					
Competent □ Not Yet Co			etent E	j	,

## **Knowledge Assessment**

Title of Qual	fication:	CS Code:	Level:	Version:			
,	ational Certificate level 3,	071300622	3	1 (2019)			
In Generator	•	071300022		1 (2013)			
iii denerator	Wechanic						
Competency	Standard Title:	Assessment [	Assessment Date (DD/MM/YY):				
Carryout Ba	sic Electrical Installation	//					
(Alternatin	g Current-AC)						
Guidance	To complete your assessment for	or this Competency	Standard, yo	u need to answer the			
for	questions on the following page	s successfully.					
Candidate							
Assessors Gu	ide (to be completed by the Asses	ssor and signed bot	h by the asses	ssor and the candidate aft			
the assessme	,						
	,						
Candidate	Name:	Reg	istration/Roll	Number:			
Details		Condition Court					
	Candidate Signature:	Candidate Signature:					
	COMPETENT	NO	Г ҮЕТ СОМРЕТ	ENT			
Written							
Assessment	Assessor Name:	Assessor Name:Assessor's code:					
Outcome		Assessor Signature:					
	Assessor Signature:						
Feedback to	the candidate on assessment.	•					
0 11 1 21							
Candidate Si	gnature	Assessor Signa	iture				

Title of Qualification:	CS Code:	Level:	Version:
National Vocational Certificate level 3,	071300622	3	1 (2019)
In Generator Mechanic			
Competency Standard Title:	Assessment [	Date (DD/MI	M/YY):
Competency Standard Title: Carryout Basic Electrical Installation (Alternating	Assessment [	Date (DD/MI	M/YY):
		Date (DD/MI	M/YY):

### WRITTEN ASSESSMENT

Que	estion	Candidate's answer
1	Interpret electrical drawing/documents ?	
2	Describe types of cables?	
3	Describe size/ gauges of cables?	

Que	stion	Candidate's answer
4	Define Earthing?	
5	What is the importance of Earthing?	
6	Define Single Phase connection?	
7	Describe the use of different color of cables?	

Oue	stion	Candidate's answer
		Callanate 3 aliswei
8	Define techniques of Joints?	
9	Describe importance of Insulation?	
40	Define Three	
	Define Three Phase connection?	
11	Define various types of core insulation (single, two, three & four core cable)	

Que	stion	Candidate's answer
	Define Conductor and Insulator?	
	Describe types of wiring?	
	Define various wiring procedure?	
15	Describe various wiring test?	

Question	Candidate's answer
16 Describe Functions of Multimeter?	
17 Describe about series test lamp?	
18 Describe testing procedures for Continuity, short circuit and Polarity test?	
19 Describe functions of Megger/earth tester?	

Title of Qualification:	CS Code:	Level:	Version:
National Vocational Certificate level 3,	071300621	3	1 (2019)
In Generator Mechanic			
Competency Standard Title:	Assessment Da	te (DD/MM/YY	):
Competency Standard Title: Repair/Replace Mechanical Components	Assessment Da	ate (DD/MM/YY	):
•	Assessment Da	ate (DD/MM/YY	):

Candidate Details	NameRegistration/Roll Number
Guidance for Candidate	To meet this standard, you are required to complete the following tasks within 40 min timeframe:  1. Assessment Task 1: Replace Fuel Injection Pump 2. Assessment Task 2: Replace Oil pump 3. Assessment Task 3: Replace Fan belt 4. Assessment Task 4: Replace Radiator 5. Assessment Task 5: Change Oil filter 6. Assessment Task 6: Change Air filter 7. Assessment Task 7: Change Connecting Rod 8. Assessment Task 8: Change Cam shaft 9. Assessment Task 9: Change Crank shaft 10. Assessment Task 10: Change Valve train components 11. Assessment Task 11: Change Timing Belt / Timing Gear 12. Assessment Task 12: Change Injector/Automizer 13. Assessment Task 13: Change/repair Cylinder head 14. Assessment Task 14: Change/repair Cylinder block  And complete: 3. Knowledge assessment test (Written or Oral) 4. Portfolios at the time of assessment (if any)
Minimum Evidence Required	During a practical assessment, under observation by an assessor, you will complete:  Task 1: Replace fuel / Injection pump Performance Criteria 1: Select tools and equipment Performance Criteria 2: Replace Fuel pipes Performance Criteria 3: Replace Fuel filter Performance Criteria 4: Replace the Fuel pump Performance Criteria 5: Calibrate Injection pump with Atomizer. Performance Criteria 6: Reinstall calibrated injector pump with atomizer

#### Task 2: Replace oil pump

Performance Criteria 1: Select Tools and equipment

Performance Criteria 2: Dismantle oil pump.

Performance Criteria 3: Repair / Replace faulty components

#### Task 3: Replace fan belt

Performance Criteria 1: Collect tools and equipment

Performance Criteria 2: Identify size of belt Performance Criteria 3: Replace fan belt Performance Criteria 4: Adjust fan belt

#### Task 4: Replace Radiator

Performance Criteria 1: Arrange tools and equipment

Performance Criteria 2: Uninstall the radiator Performance Criteria 3: Clean and flush radiator

Performance Criteria 4: Repair radiator Performance Criteria 5: Reinstall radiator

#### Task 5: Change Oil filter

Performance Criteria 1: Collect tools and equipment Performance Criteria 2: Select proper size of oil filter

Performance Criteria 3: Remove oil filter Performance Criteria 4: Install oil filter

#### Task 6: Change Air filter

Performance Criteria 1: Collect tools and equipment Performance Criteria 2: Select proper size of Air filter

Performance Criteria 3: Remove air filter Performance Criteria 4: Install air filter

#### Task 7: Change Connecting Rod

Performance Criteria 1: Select tools and equipment

Performance Criteria 2: Remove engine from main alternator

Performance Criteria 3: Dismantle engine

Performance Criteria 4: Remove connecting rod

Performance Criteria 5: Repair /replace connecting rod

#### Task 8: Change Cam shaft

Performance Criteria 1: Identify tools and equipment

Performance Criteria 2: Remove tippet cover Performance Criteria 3: Remove cam shaft

Performance Criteria 4: Repair and replace Cam shaft

#### **Task 9: Change Crank Shaft**

Performance Criteria 1: Identify tools and equipment

Performance Criteria 2: Remove Fly wheel Performance Criteria 3: Open main big end

Performance Criteria 4: Remove Timing plate and timing gear / Pully

Performance Criteria 5: Remove hosing

Performance Criteria 6: Remove Main Oil seal plate

Performance Criteria 7: Remove Crank shaft

Performance Criteria 8: Repair and replace Crank shaft

#### Task 10: Change Valve train components

Performance Criteria 1: Identify tools and equipment

Performance Criteria 2: Remove Tippet cover, Automizer pipe timing belt,

rocker and head bolt

Performance Criteria 3: Dress/ Polish Valve and valve set

Performance Criteria 4: Replace head gas kit.

Performance Criteria 5: Reinstall valve train component

#### Task 11: Change Timing Belt/Timing Gear

Performance Criteria 1: Identify tools and equipment

Performance Criteria 2: Identify timing marks

Performance Criteria 3: Loose the adjustment bolt

Performance Criteria 4: Remove the timing belt/Gear

Performance Criteria 5: Reinstall the timing belt / Gear

#### Task 12: Change Injector/Automizer

Performance Criteria 1: Identify the tools and equipment

Performance Criteria 2: Remove the Injection pipe

Performance Criteria 3: Remove the mounting bolt of Injector

Performance Criteria 4: Remove the Injector

Performance Criteria 5: Calibrate the Injectors

Performance Criteria 6: Install the Injectors.

#### Task 13: Change/repair Cylinder head

Performance Criteria 1: Identify tools and equipment

Performance Criteria 2: Repair Valve set

Performance Criteria 3: Perform Top overhaul

Performance Criteria 4: Perform head tightening sequence

#### Task 14: Change/repair Cylinder Block

Performance Criteria 1: Identify tools and equipment

Performance Criteria 2: Perform Major Overhaul

Performance Criteria 3: Change Sleeve

Performance Criteria 4: Perform Honing

Performance Criteria 5: Replace Piston and Piston rings

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

Performance criteria for the evaluation of portfolio:

Submit log book or activity record (practical journal, project, pictures etc.) completed during the training.

**Assessors Judgment Guide** (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

	0713006	520 Re	:pair/R	eplace	Mech	anical	Components			
Candidate Details										
Assessment Outcome	Assessor Name:									
	Assessi	ment S	umma	ry (to k	e filled	d by the	assessor)			
P.	Activity		1	Metho	d		Result			
Nature of Activity		Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent		
Practical Skill	Demonstration									
Knowledge As	sessment									
Other Require	ement									
Feedback to	the candidate on	assess	ment.							
Candidate Sig	gnature			Asse	essor S	ignatur	e			

Assessment Task 1 Replace Fuel / Injection pump						
	During the practical assessment, candidate demonstrated the following:				No	Remarks
1.	. Performance Criteria 1: Selected tools and equipment					
2.		ria 2: Replaced Fue	el pipes			
3.	Performance Crite	ria 3: Replaced Fue	el filter			
4.	Performance Crite	ria 4: Replaced the	Fuel pump			
5.	with Atomizer.	ria 5: Calibrated Inj				
6.	Performance Crite injector pump with	ria 6: Reinstalled ca	alibrated			
Com	petent	atomizor	Not Yet Comp	etent		
Ass	essment Task 2	Replace Oil pum	ıp			
	ing the practical as constrated the follo	•	idate	Yes	No	Remarks
1	Performance Criteria	a 1: Selected Tools	and equipment			
2	Performance Criteria	a 2: Removed oil pu	ımp.			1
3	Performance Criteria	· · · · · · · · · · · · · · · · · · ·	laced faulty			
Com	components of oil punpetent	ımp	Not Yet Com	notont	. 0	
Ass	essment Task 3	Replace Fan bel	t			
	ng the practical as constrated the follo		idate	Yes	No	Remarks
1	equipment	ria 1: Collected tool				
2	Performance Crite	ria 2: Identified size	e of belt			
3	Performance Crite	ria 3: Replaced belt	t			
4	Performance Crite	ria 4: Adjusted belt				
Con	npetent		Not Yet Com	petent		
Ass	essment Task 4	Replace Radiato	or			
	ing the practical as constrated the follo	•	idate	Yes	No	Remarks
1	Performance Criteria	a 1: Arranged tools	and equipment			
2	Performance Criteria	a 2: Uninstalled the	radiator			]
3	Performance Criteria	a 3: Cleaned and flo	ush radiator			
4	Performance Criteria	a 4: Repaired radia	tor			1
5	Performance Criteria	a 5: Reinstalled radi	iator			1
Con	petent		Not Yet Com	petent		•

Asse	essment Task 5	Change Oil filter				
During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks	
1	Performance Criteria 1: Collected tools and equipment					
2	Performance Criteria 2: Selected proper size of oil filter					
3	Performance Criteria 3: Removed oil filter					
4	Performance Criteria	4: Installed oil filter				
Competent □ No			Not Yet Comp	petent		

Ass	essment Task 6	Change Air filter					
During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks		
1	Performance Criteria	1: Collected tools					
2	Performance Criteria	eria 2: Selected proper size of air filter					
3	Performance Criteria	ia 3: Removed air filter					
4	Performance Criteria	4: Installed air filte					
Competent □ Not Yet			Not Yet Com	petent		•	

Asse	Assessment Task 7 Change Connecting Rod					
During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks	
1	Performance Criteria	Performance Criteria 1: Selected tools and equipment				
2	Performance Criteria alternator	nce Criteria 2: Removed engine from				
3	Performance Criteria	a 3: Dismantled en	gine			1
4	Performance Criteria	Criteria 4: Removed connecting rod				1
5	Performance Criteria connecting rod	a 5: Repaired / repl				
Competent □ Not			Not Yet Com	petent		

Assessment Task 8 Change Cam shaft						
During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks	
1	Performance Criteria 1: Identified tools and equipment					
2	Performance Criter	ia 2: Removed tipp	et cover			
3	Performance Criteria 3: Removed cam shaft					
4	Performance Criteria 4: Repaired and replaced Cam shaft					
Competent □			Not Yet Com	petent		

Assessment Task 9 Change Crank Shaft						
During the practical assessment, candidate demonstrated the following:			date	Yes	No	Remarks
1	Performance Criteria 1: Identified tools and equipment					
2	Performance Criter	ia 2: Removed Fly	wheel			
3	Performance Criter	ia 3: Opened main	big end			
4	Performance Criteria 4: Removed Timing plate and timing gear / Pulley					
5	Performance Criter	ia 5: Removed hos	ing			
6	Performance Criteria 6: Removed Main Oil seal plate					
7	Performance Criteria 7: Removed crank shaft					
8	Performance Criteria 8: Repaired and replace Crank shaft					
Comp	etent 🗆		Not Yet Comp	petent		

Asse	Assessment Task 10 Change Valve train components					
During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks	
1	Performance Criteria 1: Identified tools and equipment					
2	Performance Criteria 2: Removed Tippet cover, Automizer pipe timing belt, rocker and head bolt					
3	Performance Criteria 3: Dressed/ Polished valve and valve set					
4	Performance Criteria 4: Replaced head gas kit					
5	Performance Criteria 5: Reinstalled valve train component					
Com	Competent □ Not Yet Competent □					

Asse	ssment Task 11 Change Timing I	Belt/Timing Gea	r		
During the practical assessment, candidate demonstrated the following:				No	Remarks
1	Performance Criteria 1: Identified tools and equipment				
2	Performance Criteria 2: Identified timing	a 2: Identified timing marks			
3	Performance Criteria 3: Loosed the ad	ia 3: Loosed the adjustment bolt			
4	Performance Criteria 4: Removed the Timing belt/Gear				
5	Performance Criteria 5: Reinstalled the Timing belt / Gear				
Com	Competent □ Not Yet Competent □				

As	ssessment Task 12 Change Injector/Automizer					
	uring the practical assemonstrated the follow	· ·	late	Yes	No	Remarks
1	Performance Criteria 1					
2	Performance Criteria 2					]
3	Performance Criteria 3. Injector		· ·			]
4	Performance Criteria 4	<u> </u>				]
5	Performance Criteria 5			<del>                                     </del>	<u>                                     </u>	]
6	Performance Criteria 6.		Not Yet Compe	1-n4		1
<u> </u>	ompetent		VOL TEL COMPE	tem	<u> </u>	
	ssessment Task 13	Change/repair Cyl				
	uring the practical assemonstrated the follow	owing:		Yes	No	Remarks
1	Performance Criteria 1		• •			
2	Performance Criteria 2	•		<u> </u>	<u> </u>	]
3	Performance Criteria 3			<b></b> '	<u> </u>	_
4	Performance Criteria 4					
Co	ompetent		Not Yet Compe	tent		
Du	ssessment Task 14 uring the practical assemonstrated the follow	•		Yes	No	Remarks
1		a 1: Identified tools an	nd equipment	<del>                                     </del>		+
2	Performance Criteria	a 2: Performed Major	Overhaul	<u> </u>	<u> </u>	1
3		<u> </u>				1
4		a 4: Performed Honing				1
5		a 5: Replaced Piston				1
Со	ompetent	N	Not Yet Compet	ent		
_						
Port	tfolio (if any)		Description o	of port	folio	
Curr	rent□ Sufficient	nt □ AuthenticE	□ Valid □		Re	eliable 🗆
Portf	folio meet the following			Yes	No	Remarks
1	Submit log book or	eria for the evaluation or activity record (prestc.) completed during	ractical journal,			
Cor	 npetent □	-	Not Yet Comp	etent !	╛	

	Knowledg	ge Assessn	nent			
	Title of	CS Code:	Level:	Version:		
Qualification	:	071300621	3	1 (2019)		
National Voc	ational Certificate level 3,					
In Generator	Mechanic					
Competency	Standard Title:	Assessment D	Date (DD/MN	//YY):		
Repair/Rep	ace Mechanical Components	//				
Guidance	To complete your assessment for the	his Competency	Standard, yo	ou need to answer the		
for	questions on the following pages so	uccessfully.				
Candidate						
Assessors Gu the assessme	iide (to be completed by the Assessonent)	r and signed bot	h by the asse	ssor and the candidate aft		
Candidate	Name: Registration/Roll Number:					
Details	Candidate Signature:					
Written	COMPETENT	NOT	YET COMPE	TENT 🗆		
Assessment Outcome	Assessor Name:Assessor's code:					
Outcoc	Assessor Signature:					
Feedback to	the candidate on assessment.					
Candidate Sig	gnature	Assessor Signa	ture			

Title of Qualification:	CS Code:	Level:	Version:
National Vocational Certificate level 3,	071300621	3	1 (2019)
In Generator Mechanic			
Competency Standard Title:	Assessment D	Date (DD/MI	M/YY):
Repair/Replace Mechanical Components	//		
Nepall/ Neplace Mechanical Components	/ /		li di
nepany neplace internamear components			

#### **WRITTEN ASSESSMENT**

Question	Candidate's answer
20 Describe different types of Injection pump?	
21 Define Phasing and Calibration?	
22 Describe different types of Oil pumps?	

Oue	stion	Candidate's answer
		candidate 3 answer
23	Define importance	
	of Fan belt?	
24	Describe different	
27	types of Fan belts?	
	types of Fair belts:	
25	Describe various	
	radiators (single &	
	double tubes)?	
26	Describe servicing	
20	techniques of	
	Radiator?	
	radiatori	

Que	stion	Candidate's answer
27	Define different chemicals for internal cleaning/flushing?	
28	Describe different types of Oil filter and its functions?	
29	Describe procedure for replacing Oil filter?	
30	Describe sizes of air filter and its functions?	

Que	stion	Candidate's answer
31	Describe procedure of replacing Air filter?	
32	Describe Connecting rod and its functions?	
33	Describe importance of Connecting rod components?	
34	Describe dismantling procedure of Engine?	

Que	stion	Candidate's answer
35	Describe Cam shaft and its functions?	
36	Describe dismantling procedure of Cam shaft?	
37	Describe Crank shaft and its functions?	
38	Describe dismantling procedure of Crank shaft?	

Que	stion	Candidate's answer
39	Describe functions of flywheel?	
10	December	
40	Describe dismantling procedure of flywheel?	
41	Define Valve train?	
42	Describe grinding /polishing of Valve and valve seat?	

Que	stion	Candidate's answer
	Describe head gas kit?	
44	Describe Timing belt/timing plate/timing gear?	
45	Describe dismantling procedure of Timing belts, Timing gear and Pulley?	
46	Describe mounting techniques of timing belts/gear?	

Question	Candidate's answer
47 Define injector/automizer?	
48 Describe functions of injector/automizer?	
49 Describe dismantling procedure of Injector/Automizer ?	
50 Describe Calibration techniques of Injector/Automizer ?	

Question		Candidate's answer
	Define Cylinder head?	
52	Define components in cylinder head?	
53	Describe facing and decarburizing techniques of cylinder head?	
54	Describe installation techniques of cylinder head?	

Question	Candidate's answer
55 Define cylinder block?	
56 Define components in cylinder block?	
57 Describe Piston and piston rings?	
58 Describe installation techniques of Piston and piston rings?	
inige.	

Title of Qualification:	CS Code:	Level:	Version:
National Vocational Certificate level 3,	071300624	3	1 (2019)
In Generator Mechanic			
Competency Standard Title:	Assessment Date (DD/MM/YY):		
Repair/Replace Electrical Components			

Candidate Details	Name  Registration/Roll Number
	To meet this standard, you are required to complete the following tasks within 40 min timeframe:
	Assessment Task 1: Repair Self-Starter
	2. Assessment Task 2: Replace faulty parts of main Alternator
	3. Assessment Task 3: Change gauges on Display panel
	4. Assessment Task 4: Repair/ replace Governor
	<ol><li>Assessment Task 5: Replace warning sensors</li></ol>
Guidance for	6. Assessment Task 6: Replace main Alternator bearings
Candidate	7. Assessment Task 7: Change Spark plugs
	And complete: 5. Knowledge assessment test (Written or Oral) 6. Portfolios at the time of assessment (if any)

	During a practical assessment, under observation by an assessor, you will complete:
Minimum Evidence Required	Task 1: Repair Self-Starter Performance Criteria 1: Identify tools and equipment Performance Criteria 2: check the self-starter relay Performance Criteria 3: Check self- starter switch contacts (cut-out) Performance Criteria 4: Check starter loose connections Performance Criteria 5: Check self-starter Armature Performance Criteria 6: Check starter field coil for short circuit Performance Criteria 7: Check Drive system of self-gear Performance Criteria 8: Check self-bushes
	Task 2: Replace faulty parts of main Alternator Performance Criteria 1: Select tools and equipment Performance Criteria 2: Replace carbon-bushes Performance Criteria 3: Replace self-excitation. Performance Criteria 4: Replace Automatic Voltage Regulator (AVR) Performance Criteria 5: Replace Alternator terminal block (connection plate)

#### Task 3: Change gauges on display panel

Performance Criteria 1: Identify tools and equipment Performance Criteria 2: Replace Temperature gauge Performance Criteria 3: Replace Oil pressure gauge Performance Criteria 4: Replace AC Ampere gauge Performance Criteria 5: Replace DC charging gauge

Performance Criteria 6: Replace Revolution Per Minute (RPM) meter

Performance Criteria 7: Replace AC volt meter Performance Criteria 8: Replace Frequency meter Performance Criteria 9: Replace Hour count meter

#### Task 4: Repair/ Replace Governor

Performance Criteria 1: Identify tools and equipment Performance Criteria 2: Remove Fuel pipe lines Performance Criteria 3: Remove Timing plate

Performance Criteria 4: Remove Injection fuel pump gear

Performance Criteria 5: Repair Governor Performance Criteria 6: Install Governor

#### Task 5: Replace warning sensors

Performance Criteria 1: Select tools and equipment Performance Criteria 2: Remove and replace fuel sensors

Performance Criteria 3: Remove and replace temperature sensors Performance Criteria 4: Remove and replace oil pressure sensors

#### Task 6: Replace main Alternator Bearings

Performance Criteria 1: Arrange tools and equipment Performance Criteria 2: Dismantle main alternator Performance Criteria 3: Pull out the bearings Performance Criteria 4: Install bearings

#### Task 7: Change Spark plugs

Performance Criteria 1: Arrange tools and equipment Performance Criteria 2: Remove the spark plug cables Performance Criteria 3: Remove spark plugs

Performance Criteria 3: Remove spark plugs Performance Criteria 4: Mount new spark plugs

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

Performance criteria for the evaluation of portfolio:

Submit log book or activity record (practical journal, project, pictures etc.) completed during the training.

**Assessors Judgment Guide** (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

	0/13006	524 Ke	:pair/R	epiace	∌ ⊏ieci	iricai C	omponents	
Candidate Details		Name:Registration/Roll Number:						
Assessment Outcome		NOT YET COMPETENT  Assessor Name:						
	Assessi	ment §	 Summa	ry (to k	e filled	d by the	assessor)	
P	Activity			Metho			<del>-</del>	esult
Nature of Acti	Written Oral Observation Portfolio Role Play Competent Competent						Not Yet Competent	
Practical Skill	Demonstration							
Knowledge As	ssessment							
Other Require	ement							
	the candidate on							
Candidate Sig	Candidate Signature Assessor Signature							

Assessment Task 1 Repair Self-Starter						
During the practical assessment, candidate demonstrated the following:			•	Yes	No	Remarks
1.	Performance Criteria 1	: Identified tools a	and equipment			
2.	Performance Criteria 2	2: Checked the se	lf-starter relay			
3.	Performance Criteria 3: Checked self- starter switch contacts (cut-out)					
4	Performance Criteria 4: Checked starter loose connections					
5	Performance Criteria 5	5: Checked self- s	tarter Armature			
6	Performance Criteria 6: Checked starter field coil for short circuit					
7	Performance Criteria 7: Checked drive system of self- gear					
8	Performance Criteria 8	3: Checked self- s	tarter bushes			
Com	petent □		Not Yet Compe	etent		

Asses	ssessment Task 2 Replace faulty parts of main A			ternato	or	
I	During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks
1	Performance Criteria equipment	a 1: Selected tools	and			
2	Performance Criteria 2: Replaced Carbon-bushes					
3	Performance Criteria system	3: Replaced of S	Self-excitation			
4	Performance Criteria 4: Replaced Automatic Voltage Regulator (AVR)					
5	5 Performance Criteria 5: Replaced Alternator terminal block (connection plate)					
Comp	etent 🗆		Not Yet Com	petent		

Asses	ssessment Task 3 Change gauges on display panel					
	During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks
1	Performance Criteria	a 1: Identify tools a	and equipment			
2	Performance Criteria	a 2: Replace Tem	perature gauge			
3	Performance Criteria 3: Replace Oil pressure gauge					
4	Performance Criteria 4: Replace AC Ampere gauge					
5	Performance Criteria 5: Replace DC charging gauge					
6	Performance Criteria 6: Replace Revolution Per Minute (RPM) meter					
7	Performance Criteria 7: Replace AC volt meter					
8	Performance Criteria 8: Replace Frequency meter					
9	9 Performance Criteria 9: Replace Hour meter					
Competent □ Not Yet Competent □				•		

Asse	ssment Task 4	Repair/ Replace	e Governor			
	ng the practical asso constrated the follow	•	date	Yes	No	Remarks
1	Performance Criteria 1: Identify tools and equipment					
2	Performance Criteria 1: Remove Fuel pipe lines					
3	Performance Criteria	1: Remove Timino	g plate			]
4	Performance Criteria 1: Remove Fuel injection pump gear					
5	5 Performance Criteria 1: Repair Governor					
6 Performance Criteria 1: Install Governor						
Comp	petent 🗆		Not Yet Com	petent		
		•				· · · · · · · · · · · · · · · · · · ·

Asses	sment Task 5	Replace warnin	g sensors			
During	g the practical ass	essment, candi	date	Yes	No	Remarks
demonstrated the following:				162	10	Remarks
Performance Criteria 1: Identific		a 1: Identified tools	s and			
'	equipment					
2	Performance Criteria	a 2: Removed and	replace Fuel			
	sensors					
3	Performance Criteria	a 3: Removed and	replace			
3	Temperature sensors					
Performance Criteria 4: Removed and replace Oil						
+	Pressure sensors					
Competent □ Not Yet Competent □						

Asses	ssment Task 6	Replace main Alternator Bearings				
During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks	
1	Performance Criteria 1: Arranged tools and equipment					
2	Performance Criteria 2: Dismantled main alternator		ain alternator			
3	Performance Criteria 3: Pulled out the bearings					
4	4 Performance Criteria 4: Installed bearing					
Competent □ Not Yet Compe			petent			

Asses	sment Task 7	Change Spark բ	plugs			
3	g the practical assensited the follow	•	date	Yes	No	Remarks
1	Performance Criteria equipment	Performance Criteria 1: Identified tools and equipment				
2	Performance Criteria 2: Removed the spark plug cables		spark plug			
3	Performance Criteria 3: Removed spark plugs					
4	4 Performance Criteria 4: Installed new spark plugs					
Comp	etent 🗆		Not Yet Com	oetent		

Portfo	lio (if any)	Description o	f portf	olio	
Curren	t□ Sufficient □ Authentic□	l ⊒ Valid □		Relia	able 🗆
Portfolio meet the following performance standards:			Yes	No	Remarks
1	Performance criteria for the evaluation of portfolio: Submit log book or activity record (practical journal, project, pictures etc.) completed during the training.				
Competent □		Not Yet Comp	etent E	]	

	Knowledg	je Assessn	nent			
	Title of	CS Code:	Level:	Version:		
Qualification	:	071300624	3	1 (2019)		
National Voca	ational Certificate level 3,					
In Generator	Mechanic					
Competency	Standard Title:	Assessment [	Date (DD/MN	1/YY):		
Repair/Rep	lace Electrical Components	//				
Guidance	To complete your assessment for th	nis Competency	Standard, yo	ou need to answer the		
for	questions on the following pages su					
Candidate	44444	,				
Assessors Gu the assessme	ide (to be completed by the Assessor nt)	and signed bot	h by the asse	ssor and the candidate aft		
Candidate	Name:	Reg	stration/Roll	Number:		
Details	Candidate Signature:					
Written	COMPETENT	NOT YET COMPETENT □				
Assessment	Assessor Name:	Assessor's code:				
Outcome	Assessor Signature:					
Feedback to	the candidate on assessment.					
				<del></del>		
<del></del>				<del></del>		
Candidata Cic	gnature	Accecsor Signa	ture			

CS Code:	Level:	Version:	
<b>071300624</b> 3 1 (2019)			
Assessment [	Date (DD/MI	M/YY):	
//			
	071300624 Assessment [	071300624 3 Assessment Date (DD/MI	

### WRITTEN ASSESSMENT

Question	Candidate's answer
59 Describe functions of self-starter and its components?	
60 Describe various types of main Alternator (statically and	
dynamically induced EMF)?	
61 Describe function	
Automatic Voltage Regulator (AVR)?	

Question	Candidate's answer
62 Describe functions of various Main Alternator parts?	
63 Describe replacement techniques of various gauges on Display panel?	
64 Describe repair/replacement techniques of Governor Components?	
65 Describe replacement techniques of various warning sensors?	

Question	Candidate's answer
66 Describe replacement techniques of Main Alternator bearings?	
67 Describe replacement techniques of change spark plugs?	

## Instructions for Candidate (to be given by the Assessor before Assessment)

Title of Qualification:	CS Code:	Level:	Version:
National Vocational Certificate level 3,	071300627	3	1 (2019)
In Generator Mechanic			
Competency Standard Title:	Assessment Da	ate (DD/MM/YY	):
Install New Generator			

Candidate Details	NameRegistration/Roll Number
Guidance for Candidate	To meet this standard, you are required to complete the following tasks within 40 min timeframe:  1. Assessment Task 1: Adopt manufacture procedure 2. Assessment Task 2: Interpret foundation drawing 3. Assessment Task 3: Hoist Generator 4. Assessment Task 4: Level Generator 5. Assessment Task 5: Distribute electrical load 6. Assessment Task 6: Install change over switch  And complete: 7. Knowledge assessment test (Written or Oral) 8. Portfolios at the time of assessment (if any)
Minimum Evidence Required	During a practical assessment, under observation by an assessor, you will complete:  Task 1: Adopt manufacture procedure Performance Criteria 1: Identify Gross weight of the Generator Performance Criteria 2: Identify foundation holes of Generator as per manufacturer description Performance Criteria 3: Ensure holes in concrete base  Task 2: Interpret foundation drawing Performance Criteria 1: Measure distance between foundation holes Performance Criteria 2: Measure diameters of foundation holes Performance Criteria 3: Compare diameters of foundation bolts as per specification  Task 3: Hoist Generator Performance Criteria 1: Locate loading hooks of Generator Performance Criteria 2: Secure ropes and balance Generator Performance Criteria 3: Place Generator on concrete foundation safely

#### **Task 4: Level Generator**

Performance Criteria 1: Put foundation bolts in foundation holes Performance Criteria 2: Level Generator length and width wise Performance Criteria 3: Fill holes in base with concrete

#### Task 5: Distribute electrical load

Performance Criteria 1: Estimate total electrical load.

Performance Criteria 2: Distribute load on each phase equally

#### Task 6: Install change over switch

Performance Criteria 1: Mount change over switch/ATS on wall Performance Criteria 2: Connect load side with changeover switch

Performance Criteria 3: Connect Generator output with changeover switch Performance Criteria 4: Connect external power source with changeover switch

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

Performance criteria for the evaluation of portfolio: Submit log book or activity record (practical journal, project, pictures etc.) completed during the training. **Assessors Judgment Guide** (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

#### 071300627 Install New Generator

		0/13	JU627	instaii	new (	Genera	itor	
Candidate Details	Name:Registration/Roll Number:							
Assessment Outcome	COMPETENT  NOT YET COMPETENT  Assessor Name: Assessor's code: Assessor Signature:							
	Assessi	ment S	Summa	ry (to k	e filled	d by the	assessor)	
A	Activity			Metho			-	esult
Nature of Activity		Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill	Demonstration							
Knowledge As	ssessment							
Other Require	ement							
Feedback to	the candidate on	assess	ment.					
Candidate Sig	gnature			Asse	essor S	ignatur	e	

	Assessment Task 1 Adopt manufacture procedure					
_	During the practical assessment, candidate demonstrated the following:			Yes	No	Remarks
1.	Performance Criteria Generator	a 1: Identified Gro	ss weight of the			
2.	Performance Criteria Generator as per ma					
3.	Performance Criteria base	a 3: Ensured holes	s in concrete			
Compe	etent $\square$		Not Yet Compo	etent		
Asses	ssment Task 2	Interpret found	ation drawing			
`	g the practical assonstrated the follow	•	date	Yes	No	Remarks
1	Performance Criteria foundation holes		tance between			
2	Performance Criteria foundation holes	a 2: Measured dia	meters of			
3	Performance Criteria foundation bolts as p		ameters of			
Comp		or opcomedien	Not Yet Com	petent		
Asses	ssment Task 3	Hoist Generato	r			
During	g the practical ass	essment, candi	date	Yes	No	Remarks
demo	nstrated the follow	ina:		res		
demo	nstrated the follow  Performance Criteria Generator		ng hooks of	res		
		a 1: Located loadii		res		
1	Performance Criteria Generator Performance Criteria Generator Performance Criteria	a 1: Located loadin a 2: Secured rope a 3: Placed Gener	s and balanced	res		-
1 2	Performance Criteria Generator Performance Criteria Generator Performance Criteria concrete foundation	a 1: Located loadin a 2: Secured rope a 3: Placed Gener	s and balanced			-
1 2 3	Performance Criteria Generator Performance Criteria Generator Performance Criteria concrete foundation	a 1: Located loadin a 2: Secured rope a 3: Placed Gener	s and balanced ator on			
1 2 3 Comp	Performance Criteria Generator Performance Criteria Generator Performance Criteria concrete foundation	a 1: Located loadin a 2: Secured rope a 3: Placed Gener	s and balanced ator on			
1 2 3 Comp	Performance Criteria Generator Performance Criteria Generator Performance Criteria concrete foundation petent   Ssment Task 4	a 1: Located loading a 2: Secured rope a 3: Placed Gener safely  Level Generato	s and balanced ator on  Not Yet Com			
1 2 3 Comp	Performance Criteria Generator Performance Criteria Generator Performance Criteria concrete foundation petent	a 1: Located loading a 2: Secured rope a 3: Placed Generators afely  Level Generators and a sessment, canding a 2: Secured rope a 3: Placed Generators afely	s and balanced ator on  Not Yet Com		No	Remarks
1 2 3 Comp	Performance Criteria Generator Performance Criteria Generator Performance Criteria concrete foundation petent  Ssment Task 4  g the practical asset	a 1: Located loading a 2: Secured rope a 3: Placed Generators afely  Level Generators and a sessment, canding:	s and balanced rator on  Not Yet Com r	petent		Remarks
1 2 3 Comp	Performance Criteria Generator  Performance Criteria Generator  Performance Criteria concrete foundation  petent  Generator  Performance Criteria concrete foundation  petent  Generator  Performance Criteria foundation holes  Performance Criteria and width wise	a 1: Located loading a 2: Secured rope a 3: Placed Generators afely  Level Generators a 1: Put foundation a 2: Leveled Generators a 2: Leveled Generat	s and balanced rator on  Not Yet Com  r  date  h bolts in  erator length	petent		Remarks
1 2 3 Comp	Performance Criteria Generator  Performance Criteria Generator  Performance Criteria concrete foundation  petent  Generator  Performance Criteria concrete foundation  petent  Generator  Performance Criteria foundation holes  Performance Criteria foundation holes  Performance Criteria	a 1: Located loading a 2: Secured rope a 3: Placed Generators afely  Level Generators a 1: Put foundation a 2: Leveled Generators a 2: Leveled Generat	s and balanced rator on  Not Yet Com  r  date  h bolts in  erator length	petent		Remarks

Asses	sment Task 5	Distribute elect	rical load			
•	g the practical assonstrated the follow	•	date	Yes	No	Remarks
1	Performance Criteria 1: Estimated total electrical load.					
Performance Criteria 2: Distributed load on each phase equally						
11 /		Not Yet Comp	petent			

Asses	ssment Task 6	Install change of	over switch				
During	g the practical ass	essment, candi	date	Vaa	No	Domonko	
demonstrated the following:		Yes	No	Remarks			
1	Performance Criteria	a 1: Mounted char	nge over				
'	switch/ATS on wall	itch/ATS on wall					
2	Performance Criteria 2: Connected load side with		ad side with			]	
	changeover switch	hangeover switch					
3	Performance Criteria 3: Connected Generator output		enerator output				
3	with changeover switch						
4	Performance Criteria 4: Connected external power						
4	source with changeover switch						
Comp	etent 🗆		Not Yet Com	petent			

Portfo	lio (if any)	Description o	f portf	olio	
Curren	t□ Sufficient □ Authentic□	☐ Valid ☐		Relia	able 🗆
Portfolio meet the following performance standards:			Yes	No	Remarks
1	Performance criteria for the evaluation of portfolio: Submit log book or activity record (practical journal, project, pictures etc.) completed during the training.				
Competent □		Not Yet Comp	etent [	]	

# **Knowledge Assessment**

Title of Qual	ification:	CS Code:	Level:	Version:			
-	ational Certificate level 3,	071300627	3	1 (2019)			
In Generator	•						
Competency Standard Title:		Assessment I	Date (DD/MM	I/YY):			
Install New Generator		/					
Guidance	To complete your assessment	for this Competency	Standard, vo	u need to answer the			
for	questions on the following page						
Candidate		,					
Accoccore Gu	<b>uide</b> (to be completed by the Ass	accor and signed hot	h hy tha accas	scor and the candidate aft			
the assessme		essor and signed bot	ii by the asses	ssor and the candidate art			
1110 0330331110	2110)						
Candidate	Name:	Name: Registration/Roll Number:					
Details	Condidate Cianature						
	Candidate Signature:	Candidate Signature:					
	COMPETENT	NOT	YET COMPET	ENT 🗆			
Written							
Assessment	Assessor Name:	Assessor Name:Assessor's code:					
Outcome	Assessor Signature:	Assessor Signature:					
	7.6565561 Signature: Illininini						
elll.r.		•					
гееараск то	the candidate on assessmer	ıt.					
				<del></del>			
Candidate Si	gnature	Assessor Signa	ture				

Title of Qualification:	CS Code:	Level:	Version:
National Vocational Certificate level 3,	071300627	3	1 (2019)
In Generator Mechanic			
Competency Standard Title:	Assessment Date (DD/MM/YY):		
Install New Generator	//		

### **WRITTEN ASSESSMENT**

Question	Candidate's answer
68 Interpret foundation drawing?	
69 How to Hoist Generator?	
70 Define process of leveling Generator?	

Question	Candidate's answer
71 Define electrical load?	
72 Describe how to Install change over switch?	

Title of Qualification:	CS Code:	Level: 3	Version:
National Vocational Certificate level 3,	0713E&E20		1 (2019)
In Generator Mechanic			
Competency Standard Title:	Assessment Da	te (DD/MM/YY):	
Competency Standard Title: National Vocational Standards Level – 3 in	Assessment Da	te (DD/MM/YY):	

Candidate	
Details	Name:
	Registration/Roll Number:
	To meet this standard, you are required to complete the following activities within 04
	Hrs. time frame (for practical demonstration & assessment):
	<ul><li>Adjust fan belt</li></ul>
Guidance	Replace Carbon bushes of Alternator
for	Balance Generator on Foundation
Candidate	<ul> <li>Carry out Three Phase connection to connect change over switch</li> </ul>
	And complete:
	<ul> <li>Knowledge assessment test (Written or Oral).</li> </ul>
	Portfolios at the time of assessment (if any).
	During a practical assessment, under the observation by an assessor, you are required
	to perform by demonstrate the following criteria
	to periority demonstrate the ronouning direction
	Task 1: Replace fan belt
	Performance Criteria 1: Collect tools and equipment
	Performance Criteria 2: Identify size of belt
	Performance Criteria 3: Replace fan belt
	Performance Criteria 4: Adjust fan belt
	Task 2: Replace Carbon Bushes of main Alternator
Minimum	Performance Criteria 1: Select tools and equipment
Evidence	Performance Criteria 2: Replace carbon-bushes
Required	Task 3: Perform three phase Connection
Required	Performance Criteria 1: Select cable Gauge
	Performance Criteria 2: Select cables colors
	Performance Criteria 3: Connect cables
	Performance Criteria 4: Insulate Joints
	Task 4: Install change over switch
	Performance Criteria 1: Mount change over switch/ATS on wall
	Performance Criteria 2: Connect load side with changeover switch

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

Performance criteria for the evaluation of portfolio: Submit log book or activity record (practical journal, project, pictures etc.) completed during the training.

# **Self-Assessment Checklist**

Candidate Name					
Registration No.					
Qualification	0713E&E20 National Vocational Certificate Level- 3 in Generator Mechanic				
Purpose of Summative Assessment					
Assessment	Julillative Assessment				
	To meet this standard, you are required to complete the following				
	activities within 04 Hrs. time frame (for practical demonstration &				
	assessment):				
Assessment Task	<ul><li>Adjust fan belt</li></ul>				
	<ul><li>Replace Carbon bushes of Alternator</li></ul>				
	<ul><li>Balance Generator on Foundation</li></ul>				
	<ul> <li>Carry out Three Phase connection to connect change over switch</li> </ul>				

Performance Criteria	Yes	No
Task 1: Replace fan belt		
Performance Criteria 1: Collect tools and equipment		
Performance Criteria 2: Identify size of belt		
Performance Criteria 3: Replace fan belt		
Performance Criteria 4: Adjust fan belt		
Task 2: Replace Carbon Bushes of main Alternator		
Performance Criteria 1: Select tools and equipment		
Performance Criteria 2: Replace carbon-bushes		
Task 3: Perform three phase Connection		
Performance Criteria 1: Select cable Gauge		
Performance Criteria 2: Select cables colors		
Performance Criteria 3: Connect cables		
Performance Criteria 4: Insulate Joints		
Task 4: Install change over switch		
Performance Criteria 1: Mount change over switch/ATS on wall		
Performance Criteria 2: Connect load side with changeover switch		
Performance Criteria 3: Connect Generator output with changeover switch		
Performance Criteria 4: Connect external power source with changeover switch		

the assessment)		
07:	13E&E20 National Vocational Certificate	Level – 3 in Generator Mechanic
Candidate Details		Registration/Roll Number:
Assessment Outcome	COMPETENT  Assessor Name:	NOT YET COMPETENT Assessor's code:
	Assessor's Signature:	

Assessment Summary (to be filled by the assessor)

Method

Observation

Oral

Portfolio

**Role Play** 

Result

Assessors Judgment Guide (to be completed by the Assessor and signed both by the assessor and the candidate after

Candidate's Signature\_\_\_\_\_\_ Assessor's Signature\_\_\_\_\_

Date: \_\_\_\_

Activity

Nature of Activity

**Practical Skill Demonstration** 

**Knowledge Assessment** 

Other Requirement

Feedback to the Candidate			
Candidate's Signature	_ Assessor's Signature		

Eac	h Assessment Task (with perform	ance criteria)			
	essment Task	activities within 04 Hrs assessment): Adjust fan belt Replace Carbon Balance Genera Carry out Three	bushes	of Alterna	
	ing the practical assessment, cand owing:	didate demonstrated the	Yes	No	Remarks
1.	Task 1: Replace fan belt				
2.	Performance Criteria 1: Collect t	ools and equipment			
3.	Performance Criteria 2: Identify	size of belt			
4.	Performance Criteria 3: Replace	fan belt			_
5.	Performance Criteria 4: Adjust fo	an belt			
6.	Task 2: Replace Carbon Bushes	of main Alternator			
7.	Performance Criteria 1: Select to	ools and equipment			
8.	Performance Criteria 2: Replace	carbon-bushes			
9.	Task 3: Perform three phase Co	nnection			
	Performance Criteria 1: Select ca	able Gauge			_
	Performance Criteria 2: Select ca	ables colors			-
	Performance Criteria 3: Connect	cables			_
	Performance Criteria 4: Insulate	Joints			-
	Task 4: Install change over swit	ch			
	Performance Criteria 1: Mount o	change over switch/ATS c	on		
	Performance Criteria 2: Connect	_	er		
	Switch				
	Performance Criteria 3: Connect changed	ver switch			
	Performance Criteria 4: Conne with c	ct external power sour hangeover switch	ce		
Con	npetent 🗆	Not Yet Compet	ent C	]	1

# **Knowledge Assessment**

Qualification	า	0713E&E20 National Vocational Certificate Level – 3 in Generator Mechanic					
Purpose of Assessment		Summative Assessment					
Candidate		Name:					
Details		Dogistration N	lumbori		Cianati	ıroı	
		Registration	iumber:		_Signati	are:	
Assessment		COMPETENT		NOT YET COM	<b>NPETEN</b>	IT	
Outcome		Name of the	Assessor				
		Assessor's co	de:	Signatu	re:		
Portfolio (if an	ıy)			Description of	portfoli	0	
Current□	Sı	ıfficient□	Authentic□	Valid□	R	eliable	
Portfolio meet	t the fo	llowing perform	mance standards:		Yes	No	Remarks
1	Subm	itted log boo al, project, pic	a for the evaluation of or activity reduced tures etc.) comple	cord (practical			
Competent $\square$				Not Yet Compe	tent 🗆		
			Feedback to	the Candid	ate		
Candidate's Sign	nature		Assessor	's Signature			

Questions (Candidate confidently answered questions correctly and demonstrated understanding		Satisfactory	Not
	s and their application)	<b>,</b>	Satisfactory
1.	What is foundation drawing?		
2	Why leveling of generator is important during installation?	Satisfactory	Not
	villy leveling or generator to important daming metallical	Satisfactory	Satisfactory
4		Satisfactor	Not
•	What is the function of change over switch?	y	Satisfactory
		7	
-			

5	Why earthing is necessary?	Satisfactory	Not Satisfactory
		T	Т
6	Describe procedure of earthing construction and installation	Satisfactory	Not Satisfactory
		1	Not
7	What do you know about generator manual?	Satisfactory	Satisfactory

8	What is the purpose of fuel injector pump?	Satisfactory	Not Satisfactory
9	What is meant by electric cable?	Satisfactory	Not Satisfactory
10	Define sensors?	Satisfactory	Not Satisfactory

### National Vocational and Technical Training Commission (NAVTTC)

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