

QUALIFICATION FILE

Electric Vehicle Service Technician

☒ Short Term Training (STT) ☐ Long Term Training (LTT) ☐ Apprenticeship

☐ Upskilling ☐ Dual/Flexi Qualification ☒ For ToT ☒ For ToA

☒ General ☐ Multi-skill (MS) ☐ Cross Sectoral (CS) ☒ Future Skills ☐ OEM

NCrF/NSQF Level: 4

Submitted By:

Automotive Skills Development Council

E-113, Okhla Industrial Estate

Phase- III,

New Delhi-110020

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Section 1: Basic Details

1.	Qualification Name	Electric Vehicle Service Technician																			
2.	Sector/s	Automotive																			
3.	Type of Qualification: ☐ New ☒ Revised ☐ Has Electives/Options ☐ OEM	NQR Code & version of existing/previous qualification: 2022/AUT/ASDC/06572, V1.0	Qualification Name of existing/previous version: Electric Vehicle Service Technician , V1.0																		
4.	a. OEM Name b. Qualification Name (Wherever applicable)																				
5.	National Qualification Register (NQR) Code & Version (Will be issued after NSQC approval)	QG-04-AU-03586-2025-V2-ASDC	6. NCrF/NSQF Level: 4																		
7.	Award (Certificate/Diploma/Advance Diploma/ Any Other (Wherever applicable specify multiple entry/exits also & provide details in annexure)	Certificate																			
8.	Brief Description of the Qualification	An Electric Vehicle Service Technician is responsible for the repair, routine servicing and maintenance (including electrical and mechanical aggregates) of Electric and Hybrid vehicles and assist the lead technician in identifying the faults.																			
9.	Eligibility Criteria for Entry for Student/Trainee/Learner/Employee	a. Entry Qualification & Relevant Experience: <table border="1"> <thead> <tr> <th>S. No.</th> <th>Academic/Skill Qualification (with Specialization - if applicable)</th> <th>Required Experience (with Specialization - if applicable)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>10th Class + 2 years NAC/NTC</td> <td></td> </tr> <tr> <td>2</td> <td>12th Class Pass</td> <td></td> </tr> <tr> <td>3</td> <td>11th Class pass</td> <td>1.5 years of relevant experience</td> </tr> <tr> <td>4</td> <td>10th Class pass</td> <td>3 years of relevant experience</td> </tr> <tr> <td>5</td> <td>Certificate NSQF Level 3 (Two Wheeler Service Assistant/ Four Wheeler Service Assistant))</td> <td>3 years of relevant experience</td> </tr> </tbody> </table> b. Age: 18 years		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	10th Class + 2 years NAC/NTC		2	12th Class Pass		3	11th Class pass	1.5 years of relevant experience	4	10th Class pass	3 years of relevant experience	5	Certificate NSQF Level 3 (Two Wheeler Service Assistant/ Four Wheeler Service Assistant))	3 years of relevant experience
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)																			
1	10th Class + 2 years NAC/NTC																				
2	12th Class Pass																				
3	11th Class pass	1.5 years of relevant experience																			
4	10th Class pass	3 years of relevant experience																			
5	Certificate NSQF Level 3 (Two Wheeler Service Assistant/ Four Wheeler Service Assistant))	3 years of relevant experience																			
10.	Credits Assigned to this Qualification, Subject to Assessment (as per National Credit Framework (NCrF))	15	11. Common Cost Norm Category (I/II/III) (wherever applicable): I																		
12.	Any Licensing requirements for Undertaking Training on This Qualification (wherever applicable)	NA																			

13.	Training Duration by Modes of Training Delivery (<i>Specify Total Duration as per selected training delivery modes and as per requirement of the qualification</i>)	☒ Offline ☐ Online ☐ Blended					
		Training Delivery Modes	Theory (Hours)	Practical (Hours)	OJT Mandatory (Hours)	OJT Recommended (Hours)	Total (Hours)
		Classroom (offline)	139:00	251:00	60:00		450:00
		Online					
		(Refer Blended Learning Annexure for details)					
14.	Aligned to NCO/ISCO Code/s (<i>if no code is available mention the same</i>)	NCO-2015/ 3115.0602					
15.	Progression path after attaining the qualification (<i>Please show Professional and Academic progression</i>)	Electric Vehicle Service Lead Technician					
16.	Other Indian languages in which the Qualification & Model Curriculum are being submitted	Hindi					
17.	Is similar Qualification(s) available on NQR-if yes, justification for this qualification	☐ Yes ☒ No URLs of similar Qualifications:					
18.	Is the Job Role Amenable to Persons with Disability	☐ Yes ☒ No If "Yes", specify applicable type of Disability:					
19.	How Participation of Women will be Encouraged	No gender sensitization, by creating awareness in women and training them					
20.	Are Greening/ Environment Sustainability Aspects Covered (<i>Specify the NOS/Module which covers it</i>)	☒ Yes ☐ No					
21.	Is Qualification Suitable to be Offered in Schools/Colleges	Schools ☒ Yes ☐ No Colleges ☒ Yes ☐ No					
22.	Name and Contact Details of Submitting / Awarding Body SPOC (<i>In case of CS or MS, provide details of both Lead AB & Supporting ABs</i>)	Name: Mr. Arindam Lahiri Email: ceo@asdc.org.in Contact No.: 011-42599800 Website: https://www.asdc.org.in/					
23.	Final Approval Date by NSQC: 18/02/2025	24. Validity Duration: 3 Years				25. Next Review Date: 18/02/2028	

Section 2: Module Summary

NOS/s of Qualifications

(In exceptional cases these could be described as components)

Mandatory NOS/s:

Specify the training duration and assessment criteria at NOS/ Module level. For further details refer curriculum document.

Th.-Theory **Pr.**-Practical **OJT**-On the Job **Man.**-Mandatory Training **Rec.**-Recommended **Proj.**-Project

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Organize work and resources (Service)	ASC/N9801, v1.0	Non-Core	4	2	25	35			60	50	30		20	100	15
2.	High voltage and fire safety practices	ASC/N9846, v1.0	Non-Core	4	6	60	120			180	50	30		20	100	10
3.	Employability Skills (60 hours)	DGT/VSQ/N0102, v1.0	Non-Core	4	2	24	36			60	20	30			50	10
4.	OJT				2			60		60						
Duration (in Hours) / Total Marks						12	109	191	60	360	120	90		40	250	50

Elective NOS/s:

Elective 1: Four Wheeler

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Carry out routine service or minor repairs on four wheeler electric/ hybrid vehicle and assist in diagnosis	ASC/N1450, v2.0	Core	4	3	30	60			90	30	50		20	100	50
Duration (in Hours) / Total Marks						3	30	60		90	30	50		20	100	50

Elective 2: Two Wheeler

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
2.	Carry out routine service or minor repairs on 2 wheeler electric vehicle and assist in diagnosis	ASC/N1451, v3.0	Core	4	3	30	60			90	30	50		20	100	50
Duration (in Hours) / Total Marks					3	30	60			90	30	50		20	100	50

Elective 3: Three Wheeler

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Carry out routine service or minor repairs on 3 wheeler electric vehicle and assist in diagnosis	ASC/N1321, v1.0	Core	4	3	30	60			90	30	50		20	100	50
Duration (in Hours) / Total Marks					3	30	60			90	30	50		20	100	50

Elective 4: Bus and Heavy Commercial Vehicle

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks					
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total	Weightage (%) (if applicable)
1.	Carry out routine service or minor repairs on heavy commercial electric vehicle and assist in diagnosis	ASC/N1452, v2.0	Core	4	3	30	60			90	30	50		20	100	50
Duration (in Hours) / Total Marks					3	30	60			90	30	50		20	100	50

Optional NOS/s:

S. No	NOS/Module Name	NOS/Module Code & Version (if applicable)	Core/ Non-Core	NCrF/NSQF Level	Credits as per NCrF	Training Duration (Hours)					Assessment Marks				
						Th.	Pr.	OJT-Man.	OJT-Rec.	Total	Th.	Pr.	Proj.	Viva	Total Weightage (%) (if applicable)
1.															
2.															
Duration (in Hours) / Total Marks															

Assessment - Minimum Qualifying Percentage

Please specify **any one** of the following:

Minimum Pass Percentage – Aggregate at qualification level: 70 % (Every Trainee should score specified minimum aggregate passing percentage at qualification level to successfully clear the assessment.)

Minimum Pass Percentage – NOS/Module-wise: % (Every Trainee should score specified minimum passing percentage in each mandatory and selected elective NOS/Module to successfully clear the assessment.)

Section 3: Training Related

1.	Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	ITI (Mechanic Motor Vehicle/Mechanic Auto Electrical and Electronics/Diesel Mechanic) with 4 years industry experience and 1 year training experience Or ITI (Mechanic Motor Vehicle/Mechanic Auto Electrical and Electronics/Diesel Mechanic) with 5 years industry experience and 0 year training experience Or Diploma (Automobile Engineering/Mechanical Engineering) with 3 years industry experience and 1 year training experience Or Diploma (Automobile Engineering/ Mechanical Engineering) with 4 years industry experience and 0 year training experience Or Bachelor of Engineering (Automobile/ Mechanical / Electrical/ Engineering/ Electronics) with 2 years industry experience and 1 year training experience
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		Or Bachelor of Engineering (Automobile/ Mechanical / Electrical/ Engineering/ Electronics) with 3 years industry experience and 0 year training experience Or Certificate NSQF- Level 5 (Four Wheeler Master Technician) with 3 years industry experience and 1 year training experience
2.	Master Trainer's Qualification and experience in the relevant sector (in years) (as per NCVET guidelines)	B.E./ B.Tech (Automobile/ Mechanical Engineering) - 4 years industry experience and 2 year training experience
3.	Tools and Equipment Required for Training	☒ Yes ☐ No (If "Yes", details to be provided in Annexure)
4.	In Case of Revised Qualification, Details of Any Upskilling Required for Trainer	

Section 4: Assessment Related

1.	Assessor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	ITI (Mechanic Motor Vehicle/Mechanic Auto Electrical and Electronics/Diesel Mechanic) with 5 years industry experience and 1 year training experience Or ITI (Mechanic Motor Vehicle/Mechanic Auto Electrical and Electronics/Diesel Mechanic) with 6 years industry experience and 0 year training experience Or Diploma (Automobile Engineering/Mechanical Engineering) with 4 years industry experience and 1 year training experience Or Diploma (Automobile Engineering/ Mechanical Engineering) with 5 years industry experience and 0 year training experience Or Bachelor of Engineering (Automobile/ Mechanical / Electrical/ Engineering/ Electronics) with 3 years industry experience and 1 year training experience Or Bachelor of Engineering (Automobile/ Mechanical / Electrical/ Engineering/ Electronics) with 4 years industry experience and 0 year training experience Or Certificate NSQF- Level 5 (Four Wheeler Master Technician) with 4 years industry experience and 1 year training experience
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2.	Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	NA
3.	Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)	B.E./ B.Tech (Automobile/ Mechanical Engineering) – 4-5 years industry experience and 2-1 year training experience
4.	Assessment Mode (Specify the assessment mode)	Blended
5.	Tools and Equipment Required for Assessment	☒ Same as for training ☐ Yes ☐ No (details to be provided in Annexure-if it is different for Assessment)

Section 5: Evidence of the need for the Qualification

Provide Annexure/Supporting documents name.

1.	Latest Skill Gap Study (not older than 2 years) (Yes/No): Yes
2.	Latest Market Research Reports or any other source (not older than 2 years) (Yes/No): Yes
3.	Government /Industry initiatives/ requirement (Yes/No): Yes
4.	Number of Industry validation provided: 28
5.	Estimated nos. of persons to be trained and employed: 2500
6.	Evidence of Concurrence/Consultation with Line Ministry/State Departments: In progress If "No", why:

Section 6: Annexure & Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	Annexure: NCrf/NSQF level justification based on NCrf level/NSQF descriptors (Mandatory)	Attached
2.	Annexure: List of tools and equipment relevant for qualification (Mandatory, except in case of online course)	Attached
3.	Annexure: Detailed Assessment Criteria (Mandatory)	Attached
4.	Annexure: Assessment Strategy (Mandatory)	Attached
5.	Annexure: Blended Learning (Mandatory, in case selected Mode of delivery is "Blended Learning")	Filled

6.	Annexure: Multiple Entry-Exit Details (Mandatory, in case qualification has multiple Entry-Exit)	Filled
7.	Annexure: Acronym and Glossary (Optional)	
8.	Supporting Document: Model Curriculum (Mandatory – Public view)	Attached
9.	Supporting Document: Career Progression (Mandatory - Public view)	Attached
10.	Supporting Document: Occupational Map (Mandatory)	Attached
11.	Supporting Document: Assessment SOP (Mandatory)	Attached
12.	Any other document you wish to submit:	

Annexure: Evidence of Level

NCrF/NSQF Level Descriptors	Key requirements of the job role/ outcome of the qualification	How the job role/ outcomes relate to the NCrF/NSQF level descriptor	NCrF/NSQF Level
Professional Theoretical Knowledge/Process	The individual on the job needs perform servicing and repairing of an electric vehicle.	The individual on the job is responsible for own work and learning. Work in vehicle servicing and repairing work environment.	4
Professional and Technical Skills/ Expertise/ Professional Knowledge	The individual on the job needs to have factual knowledge of: - Components of an electric vehicle. - Different types of tools and equipment required and their identification. - Servicing and repairing activities. Inspection and trial check of vehicle	Factual knowledge of troubleshooting and repairing methods and use of different tools and equipment required.	4
Employment Readiness & Entrepreneurship Skills & Mind-set/Professional Skill	Recall and demonstrate practical skill to routine and repetitive applications: - Troubleshooting and repairing methods. - Inspection of functionality of electric vehicle - Recognise a workplace problem or a potential problem and take action.	Recall and demonstrate practical skill, routine and repetitive in wide range of application, using appropriate rule and tool, using quality concepts.	4
Broad Learning Outcomes/Core Skill	The user individual on the job needs to have written and oral communication skills like: Read and interpret job card. Read engineering drawings, sketches.	Language to communicate written or oral, with required clarity, skill to basic arithmetic and algebraic principles, basic understanding of social political and natural environment.	4
Responsibility	The individual on the job needs to know their own responsibility of servicing and repairing of an electric vehicle.	The individual on the job is responsible for own work and fully responsible for other's work and learning.	4

Annexure: Tools and Equipment (Lab Set-Up)

List of Tools and Equipment

Batch Size: 30

S. No.	Tool / Equipment Name	Specification	Quantity for specified Batch size
1	Service Technician Tool Kit comprising of Ring spanners, Open end spanners Screw Drivers-Flat Head (Slotted Head) &Phillips Types (Large, Medium and Small Sizes), Cutting Pliers (Combination Pliers)	Spanners-06 to 34mm	6
2	Snap Ring Pliers (also called retaining ring pliers, circlip pliers, C clip pliers, lock ring pliers)	As per requirement	2
3	Bent Nose Pliers	As per requirement	2
4	Locking Pliers (Vise Grips)	As per requirement	1
5	Drive Socket Set with ratchet handle and extensions	06mm to 34mm ,	3
6	Hammer Ball Peen	200gm	2
7	Allen key set	2mm to 25mm	3
8	Hacksaw With Blade	300mm	1
9	Hand File Set (different cross-section shapes)	As per requirement	1
10	Spark Plug Sockets	67mm Drive Size 16/21 mm	1
11	Adjustable Filter Remover	As per requirement	1
12	Cross Wheel Spanner	17x18-19x21mm	2
13	Chisels	As per requirement	1
14	Punches	As per requirement	1
15	Plastic Hammer	As per requirement	2
16	Rubber-Mallet	As per requirement	1
17	Torque wrench	1 -7 Kg-m	1
18	Torque wrench	3-14 Kg-m	1
19	Torque wrench	5-23 Kg-m	1
20	Bench Vice	100mmx4"	1
21	Hand held Drill machine (Electric)	Power: 380 W Speed: 0-2600 rpm	1
22	Bench Drill machine (Electric)	3 Phase 0.5 H.P. 1440 RPM	1
23	Drill bits	As per requirement	1
24	Bench Grinder	350 WATTS, 3000 RPM	1
25	Two Leg Puller	As per requirement	1
26	Multi-application three leg puller	As per requirement	1
27	Universal bearing puller	As per requirement	1
28	Steel Rule	0 to 30 cm, 0 to 15cm	1

29	Tape Measure	0 to 3 metre	1
30	Depth Gauge	0 to 30cm	1
31	Feeler Gauge	0.05-1.00 mm	1
32	Inside caliper	As per requirement	1
33	Outside caliper	As per requirement	1
34	Vernier Callipers	As per requirement	1
35	Micrometre	0 to 25 mm	1
36	Micrometre	25 to 50 mm	1
37	Micrometre	50 to 75 mm	1
38	Micrometre	75 to 100 mm	1
39	Dial gauge	As per requirement	1
40	Magnetic base with rod and clamp for Dial gauge	As per requirement	1
41	Bore Dial Gauge	50 to 150mm.	1
42	Precision cast iron surface plate	300 mmx300mm	1
43	Digital Thermometer (industrial)	range -50 to 300 degree C	1
44	Magnetic Pickup Tool (Bar)	As per requirement	1
45	Measuring Can	0 to 05 litre	1
46	Injector Tester and Cleaner	As per requirement	1
47	Spark Plug Cleaner	As per requirement	1
48	Engine compression tester (Diesel)	As per requirement	1
49	Engine compression tester (Petrol)	As per requirement	1
50	Pressure/Vacuum Gauge	As per requirement	1
51	Non-Contact Tachometer	As per requirement	1
52	Inspection lens	150mm dia convex	1
53	Hydro meter	As per requirement	1
54	Digital Multimeter	As per requirement	4
55	Clamp Meter	As per requirement	1
56	Test light	As per requirement	1
57	Battery tester	As per requirement	1
58	Battery Charging System	As per requirement	1
59	Soldering Iron/ gun	As per requirement	1
60	Scan-Tool	As per requirement	1
61	Oscilloscope	As per requirement	1
62	Special tools for starter/Alternator	As per requirement	1
63	Special Maintenance Tool for two wheelers (Magneto puller, clutch holder, tappet adjuster)	As per requirement	1
64	Special Maintenance Tools for Engine and other aggregates	As per requirement	1
65	A/c Gas Leakage Tester	As per requirement	1
66	Drain Pans/Engine Tray	12"x18",18"x24'	1

67	Grease Gun	As per requirement	1
68	Oil Can	As per requirement	1
69	Oil draining & filling equipment	As per requirement	1
70	Wire Brush	steel wire & brass wire	1
71	Parts Washer	As per requirement	1
72	Air Compressor and Hoses	As per requirement	1
73	Tyre Inflator	As per requirement	1
74	Tyre Pressure Gauge	As per requirement	1
75	Pneumatic Tools (Runners)	As per requirement	1
76	Hydraulic jacks 3 Ton	As per requirement	2
77	Wheel Choke (triangular wedge type wood or metal)	As per requirement	4
78	Vehicle Support Stands	As per requirement	4
79	Two/Four Post lift	As per requirement	1
80	Computerised Wheel Aligner	As per requirement	1
81	Computerised Wheel balancer	As per requirement	1
82	Head Light Focusing Equipment	As per requirement	1
83	Brake Bleeder (Pressure or Vacuum)	As per requirement	1
84	A.C. Gas charging Machine Automatic	As per requirement	1
85	Exhaust-Gas-analyzer	As per requirement	1
86	Electrical circuit board (Starting, charging)	As per requirement	1
87	Electrical circuit board (Lighting)	As per requirement	1
88	Car Washing Machine	As per requirement	1
89	waste oil dispenser 40 lit capacities	As per requirement	1
90	Plastic Container (10 Ltr.)	As per requirement	1
91	Trim moulding tool kit (Carbon/Gasket Scraper, Spoon, etc.)	As per requirement	1
92	Overall/Apron	As per requirement	30
93	Goggles	As per requirement	4
94	Ear Plugs	As per requirement	4
95	Gloves (cotton and leather)	As per requirement	6
96	Hard Hats (Head Protection)	As per requirement	4
97	First Aid kit	As per requirement	1
98	Cease Fire powder Based Fire Extinguisher Class ABC, 500gms	As per requirement	3
99	Safety/5S-Sign boards	As per requirement	1
100	Safety cone to block area of working	As per requirement	6
101	Car seat covers	As per requirement	2
102	Steering covers	As per requirement	2
103	Gear Knob covers	As per requirement	2
104	Fender covers	As per requirement	2
105	Floor mats	As per requirement	2

106	Diesel (Consumable)	As per requirement	50
107	Petrol (Consumable)	As per requirement	50
108	Oil Lubricating (Consumable)	As per requirement	50
109	Grease (Consumable)	As per requirement	10
110	Degrease detergent	As per requirement	50
111	Cotton waste (Consumable)	As per requirement	10
112	Misc Items (Emery Paper etc.)	As per requirement	50
113	Two Wheeler (In running condition)	Any 2 wh make 100-125CC	1
114	Major units of two wheeler (Cut section of engine with transmission system mounted on stand, components of all systems)	Any 2 wh make 100-125CC	1
115	Four wheeler with AC (In running condition)-Diesel	Any 4 wh 800 to 1200 cc - with CRDI engine	1
116	Four wheeler with AC (In running condition)-Petrol	Any 4 wh 800 to 1200 cc - with MPFI	1
117	LCV/HCV (In running condition)	With any engine conforming BS-3 & above	1
118	Aggregate car petrol (cut section models of Engine, transmission system, brake system, suspension system, steering system, electrical system etc. mounted on chassis)	Any 4 wh 800 to 1200 cc	1
119	Diesel Engine mounted on stand	any engine conforming BS III & above	1
120	Clutch System	of any vehicle	1
121	Gear Box mounted on stand (MT)	of any vehicle	1
122	Gear Box mounted on stand (AT)	As per requirement	1
123	Transfer Case (4WD)	As per requirement	1
124	Propeller shaft	any LCV	1
125	Front axle & Rear axle (Differential)	any LCV	1
126	Starter Motor	12 volt/1 KW	1
127	Alternator	12 volt/70 amp	1
128	Steering System	Rack & pinion type & EPS	1
129	Air Assisted Brake System	of any vehicle	1
130	Brake System Hydraulic	of any vehicle	1
131	Fuel Pump (12V electrical fuel pump)	of any vehicle	1
132	Water Pump	of any vehicle	1
133	Radiator	any vehicle	1
134	Fuel Filter	Cartridge or insert	2
135	Oil Filter	any make	2
136	Failed parts display with cause & effect analysis - clutch plate, piston, prop shaft, diff gears, cut tyres, bent wheel rim etc.)	1 each of all	1
137	Almira for keeping tools	6' Height x 3'Width x 1.75' Depth and 18 Gauge	1

138	Work tables for aggregate repairs (wooden or Fabricated)	120 cmx90cmx80cm (app.) Strong enough to carry min 200 Kg Load	1
139	Aggregate and parts display tables (wooden or Fabricated)	120cmx60cmx80cm	1
140	Sample Job cards	As per requirement	1
141	Repair Manual (of the vehicle available in the training center)	As per requirement	1
142	Service Manual (of the vehicle available in the training center)	As per requirement	1
143	Wiring Manuals (of the vehicle available in the training center)	As per requirement	1
144	Diagnostic Manual (of the vehicle available in the training center)	As per requirement	1
145	Parts Catalogue (of the vehicle available in the training center)	As per requirement	1
146	Special Tools Manual (of the vehicle available in the training center)	As per requirement	1

Classroom Aids

The aids required to conduct sessions in the classroom are:

1. Whiteboard
2. Projector
3. Computer/Laptop
4. Chairs
5. Tables
6. Whiteboard marker

Annexure: Industry Validations Summary

Provide the summary information of all the industry validations in table. This is not required for OEM qualifications.

	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
1	Celica Automotive Pvt Ltd.	Archa Halder	Technical Manager	cet@citroen-celica.com			
2	Frostees India Pvt. Ltd.	Sauvik Bera	Director	bera.sauvik@frostees.in			
3	Hind Hydrolics and Engineers	Amit	Head HR	hr@hindhydrolicspvtltd.com			
4	Khokan Motors Works Pvt Ltd.	Amiya Sindhu Sarkar	Service Manager	amiyas14@gmail.com			
5	NSEPF ASSESSMENT PVT .LTD	Ashish Kumar	Chief Operating Officer	coo@nsepf.in			
6	Premier Car Works Pvt. Ltd.	Sibdas Roy	In House Trainer	iht@premiergroup.in			
7	Zedex Mobility LLP	Anjali Sharma	HR Head	hr.del@zedextata.co.in			
8	Skillmate Technologies Pvt. Ltd.,	Gajanan R. Trikutkar	Director & Co-Founder				
9	Sparsh Kia	Paramveer Mehta	VP Sparsh	vp@sparsh.co			
10	Sparsh Tata	Paramveer Mehta	VP Sparsh	vp@sparsh.co			
11	Soceity for Ashok leyland driver training institute	Aswani Kumar	Head	ashwani@ashokleyland.com			
12	North star Tecno services	Suresh Kumar Rai	Chief Project Manager				
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15	Tamil Nadu Smart and Advanced Manufacturing Centre	Sukhpreet Singh	Chief Executive Officer	sukhpreet@tansam.org			
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18	Vision India	Navneet Nigam	Associate Vice President	Navneet.nigam@vispl.co.in			
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27	Skill Manthan	Manoj Kumar	General Manager	info@skillmanthan.com			
28	.Go Auto Pvt Ltd	Sanjeev Kumar	Vice President (Ops)	vp.ops@goauto.in			

Annexure: Training & Employment Details

Training and Employment Projections:

Year	Total Candidates		Women		People with Disability	
	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities
2025-26	500	350	200	140	50	35
2026-27	1000	700	400	280	100	70
2027-28	1500	1050	600	420	150	105

Data to be provided year-wise for next 3 years

Training, Assessment, Certification, and Placement Data for previous versions of qualifications:

Qualification Version	Year	Total Candidates				Women				People with Disability			
		Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed	Trained	Assessed	Certified	Placed

Applicable for revised qualifications only, data to be provided year-wise for past 3 years.

List Schemes in which the previous version of Qualification was implemented:

- 1.
- 2.

Content availability for previous versions of qualifications:

☐ Participant Handbook ☐ Facilitator Guide ☐ Digital Content ☐ Qualification Handbook ☐ Any Other:

Languages in which Content is available:

NSQC APPROVED

Annexure: Blended Learning

Blended Learning Estimated Ratio & Recommended Tools:

Refer NCVET “Guidelines for Blended Learning for Vocational Education, Training & Skilling” available on:

<https://ncvet.gov.in/sites/default/files/Guidelines%20for%20Blended%20Learning%20for%20Vocational%20Education,%20Training%20&%20Skilling.pdf>

S. No.	Select the Components of the Qualification	List Recommended Tools – for all Selected Components	Offline: Online Ratio
1	☒ Theory/ Lectures - Imparting theoretical and conceptual knowledge	• Books/ e-books • Presentations • Reference Material • Audio / Video Modules	40:60
2	☒ Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners	• Self-Learning Videos • Broadcasts • Mobile Learning • Curated Digital content	40:60
3	☒ Showing Practical Demonstrations to the learners	• Video Content • E-Resource library • AR/ VR/ XR	40:60
4	☒ Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	• Training tools (tools list attached) • Video Play • Presentations	40:60
5	☒ Tutorials/ Assignments/ Drill/ Practice	• Online Question Bank • Mobile Quick test app • MCQ based tests	40:60
6	☒ Proctored Monitoring/ Assessment/ Evaluation/ Examinations	• Assessment engine for Essays • Up-loadable file examinations • Mock test sessions	40:60
7	☒ On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training	• Online tests • Offline assessments	40:60

Annexure: Detailed Assessment Criteria

Detailed assessment criteria for each NOS/Module are as follows:

NOS/Module Name	Assessment Criteria for Performance Criteria/Learning Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
ASC/N9801 – Organize work and resources (Service)	<i>Maintain safe and secure working environment</i>	8	4	-	3
	PC1. organise work as per organisation's current health, safety and security policies and procedures	-	2	-	1
	PC2. report any identified breaches in health, safety, and security policies and procedures to the designated person	3	1	-	-
	PC3. identify the risks and hazards associated with work activities, their causes and prevention	5	1	-	2
	<i>Perform work as per quality standards</i>	12	8	-	6
	PC4. ensure work area is clean and tidy	4	2	-	-
	PC5. ensure that work is accomplished as per the requirements within the specified timeline	6	4	-	2
	PC6. ensure team goals are given preference over individual goals	2	2	-	4
	<i>Health and hygiene</i>	12	8	-	5
	PC7. sanitize workstation and equipment regularly	2	2	-	2
	PC8. clean hands with soap, alcohol-based sanitizer regularly	2	1	-	-
	PC9. avoid contact with ill people and self-isolate in a similar situation	2	1	-	-
	PC10. wear and dispose PPEs regularly and appropriately	2	2	-	1
	PC11. report advanced hygiene and sanitation issues to appropriate authority	2	2	-	2
	PC12. follow stress and anxiety management techniques	2	-	-	-
	<i>Material/energy conservation practices</i>	10	4	-	3
	PC13. identify ways to optimise usage of material in various tasks/activities/processes	2	-	-	1
	PC14. use resources, including water, in a responsible manner	2	-	-	-
	PC15. check for spills/leakages in various tasks/activities/processes	-	1	-	-
	PC16. plug spills/leakages and escalate to appropriate authority if unable to rectify	-	1	-	1
	PC17. carry out routine cleaning of tools, machines and equipment	2	-	-	-
	PC18. check if the equipment/machine is functioning normally before commencing work and rectify wherever required	-	1	-	1
	PC19. report malfunctioning (fumes/sparks/emission/vibration/noise) and lapse in maintenance of equipment	2	1	-	-
	PC20. ensure electrical equipment and appliances are properly connected and turned off when not in use	2	-	-	-
	<i>Effective waste management practices</i>	8	6	-	3
	PC21. identify recyclable and non-recyclable, and hazardous waste generated	2	-	-	1
	PC22. segregate waste into different categories	-	2	-	-

	PC23. dispose non-recyclable waste appropriately	2	2	-	1
	PC24. deposit recyclable and reusable material at identified location	2	1	-	-
	PC25. follow processes specified for disposal of hazardous waste	2	1	-	1
	Total Marks	50	30	-	20
ASC/N9846: High voltage and fire safety practices	<i>High voltage safety practices</i>	27	16		12
	PC1. make sure to wear personal safety equipment and that it fits properly, is worn correctly and is not damaged in any way	2	2		1
	PC2. consult the common and manufacturer specific instructions where available	2	1		-
	PC3. examine the high voltage battery visually for physical, mechanical damage, intrusion and leakage	3	2		1
	PC4. if the high voltage battery is identified as damaged handle, inform the relevant person in accordance with manufacturer specific instruction and applicable national legislation and guideline	3	2		2
	PC5. ensure the area around the EV is restricted and marked, before removal of high voltage battery	3	1		1
	PC6. use only the test instruments, and insulated tools rated for the voltage and current specified	3	2		2
	PC7. don't wear any jewelry or other articles that could accidentally contact circuitry and conduct current, or get caught in moving parts	2	1		1
	PC8. set up your work area away from possible grounds that you may accidentally contact	2	1		1
	PC9. use a grounded safety chain or cable when working with high voltage	3	2		1
	PC10. never touch, cut or open high voltage power cable or high voltage components without personal protective equipment	2	1		1
	PC11. do not allow open flames near, apply heat to the EV battery or do not expose to high temperature, e.g. long period in direct sunlight	2	1		1
	<i>Fire safety practices</i>	23	14		8
	PC12. before starting work, use a non-contact infrared thermometer to check if the battery is heating up. If so, move the vehicle to a safe isolation area and call the fire department.	3	2		1
	PC13. don't overload circuits and check cords & extensions before starting work	3	1		1
	PC14. use warning signage and cordon off the area. Lock the remote key to prevent the vehicle from moving or the electrical systems from accidentally operating.	3	1		1
	PC15. unplug the service plug to disconnect the battery from the high voltage (HV) lines. Wait 5–10 minutes after the supercapacitors have discharged before working on the vehicle.	3	2		1
	PC16. use appropriate fire extinguisher (ABC, BC) in case of any fire	3	2		1
	PC17. evacuate to a safe place and do not let other people approach the site in case of fire accident	3	2		1
	PC18. when a vehicle fire occurs due to the battery, there is a risk of a second fire. Contact your local fire emergency responders when towing the vehicle.	3	2		1

	PC19. report any electrical faults to appropriate person to avoid any accident	2	2		1
	Total Marks	50	30	-	20
ASC/N1450: Carry out routine service or minor repairs on four wheeler electric/ hybrid vehicle and assist in diagnosis	<i>Prepare to carry out routine service or minor repair and assist in fault diagnosis</i>	5	14	-	6
	PC1. review the job card and understand work to be carried out on the four wheeler electric or hybrid vehicle	-	1	-	1
	PC2. identify the auto components related to the various aggregates in the four wheeler electric or hybrid vehicle	1	2	-	1
	PC3. ensure no HV (High Voltage) activity is being conducted around workstation prior to commencement of work on electric vehicle	1	1	-	-
	PC4. collect workshop tools/measuring devices/equipment required to carry out job on the four wheeler electric or hybrid vehicle and check their condition/calibration	1	2	-	1
	PC5. prepare the four wheeler electric or hybrid vehicle according to nature of job to be performed: general and mechanical job on the vehicle/electrical work in non-live state/troubleshoot and replace parts in live state of HV system	-	1	-	-
	PC6. mark the four wheeler electric or hybrid vehicle and safeguard the working area during electrical work	-	1	-	-
	PC7. wear PPE according to nature of job to be performed on the four wheeler electric or hybrid	1	1	-	1
	PC8. conduct visual inspection of the four wheeler electric or hybrid vehicle to identify defects in HV components and identify indirect faults in electrical/electronic aggregate due to other system/component	-	2	-	1
	PC9. assess mechanical aggregates such as engine, transmission, axles, brakes etc. of the four wheeler electric or hybrid vehicle for any external impact/bend/leak/incorrect level/wear & tear	1	2	-	1
	PC10. report the malfunctions/repairs in the four wheeler electric or hybrid vehicle beyond own scope to the concerned person	-	1	-	-
	<i>Perform routine service and minor repairs</i>	12	18	-	5
	PC11. take precautions to avoid damage to the four wheeler electric or hybrid vehicle and its components while working on various aggregates	1	2	-	-
	PC12. use appropriate tools, equipment, and consumables as per nature of job and Standard Operating Procedure (SOP) recommended by the organization	1	2	-	1
	PC13. perform task on the HV system as per following stages: general and mechanical tasks on the four wheeler electric or hybrid vehicle which do not require isolation of the HV systems, mechanical work in non live state of the HV systems and replace parts in live state of the HV system	2	2	-	-
	PC14. test the four wheeler electric or hybrid vehicle's electrical/electronic components performance wherever applicable as per OEM SOP	2	3	-	2
	PC15. remove parts relevant to various mechanical aggregates of the four wheeler electric or hybrid vehicle and place them securely as specified by OEM	1	2	-	-
	PC16. clean and condition dismantled mechanical and electrical components of the four wheeler electric or hybrid vehicle prior to assembly	1	1	-	-
	PC17. perform minor repair/replacement/calibration/ of mechanical				

	system/aggregate of the four wheeler electric or hybrid vehicle such as drive line, running systems, etc. including HVAC, power assisted braking & steering systems	2	3	-	1
	PC18. refill/replace, as required quantity and appropriate grade of coolants, engine oil, other lubricant/fluids in the engine aggregates as per OEM guidelines	1	2	-	1
	PC19. maintain the documentation related to inspection, servicing and minor repair performed on the four wheeler electric or hybrid vehicle	1	1	-	-
	<i>Assist lead technician in diagnosis or troubleshooting the faults</i>	8	10	-	5
	PC20. conduct test drive of the four wheeler electric or hybrid vehicle to assist the lead technician in assessing the service/repair requirement or calibration/adjustments, if any	-	2	-	-
	PC21. follow lead technician instructions to choose and use the appropriate device/equipment to inspect/test the four wheeler electric or hybrid vehicle/system/component performance to diagnosed defect or faults in the electric/hybrid vehicle	2	2	-	2
	PC22. carry out inspection or test on the four wheeler electric or hybrid vehicle mechanical and electrical systems according to lead technician instructions	2	2	-	2
	PC23. interpret and compare results of diagnostic inspections/tests with vehicle specifications and regulatory requirements	2	2	-	1
	PC24. maintain the documentation related to inspections and troubleshooting performed on the four wheeler electric or hybrid vehicle	1	1	-	-
	PC25. report the results to lead technician and seek assistance if further tests or inspections are required to conclude the diagnosis or troubleshooting	1	1	-	-
	<i>Perform post service/repair/diagnostic activities</i>	5	8	-	4
	PC26. check the performance of four wheeler electric or hybrid vehicle/aggregate post repair and report to supervisor/service advisor if further inspection is required by another specialist	2	3	-	2
	PC27. ensure completeness of tasks assigned before releasing the four wheeler electric or hybrid vehicle for the next procedure	1	2	-	1
	PC28. dispose of materials such as old batteries, scrap of failed parts/aggregates as per organization's policies	1	2	-	1
	PC29. return leftover consumable/parts, tools/equipment, and report if any malfunctions are observed to the person concerned	1	1	-	-
	Total Marks	30	50	-	20
ASC/N1451: Carry out routine service or minor repairs on 2 wheeler electric vehicle and assist in diagnosis	<i>Prepare to carry out routine service or minor repair and assist in fault diagnosis</i>	5	14	-	6
	PC1. review the job card and understand work to be carried out on two wheeler electric vehicle	-	1	-	1
	PC2. identify the auto components related to the various aggregates in the two wheeler electric vehicle	1	2	-	1
	PC3. ensure no HV (High Voltage) activity is being conducted around workstation prior to commencement of work on two wheeler electric vehicle				

		1	1	-	-
	PC4. collect workshop tools/measuring devices/equipment required to carry out job on two wheeler electric vehicle and check their condition/calibration	1	2	-	1
	PC5. prepare two wheeler electric vehicle according to nature of job to be performed: general and mechanical/electrical work in non-live state/troubleshoot and replace parts in live state HV system	-	1	-	-
	PC6. mark the two wheeler electric vehicle and safeguard the working area during electrical work	-	1	-	-
	PC7. wear PPE according to nature of job to be performed on the two wheeler electric vehicle	1	1	-	1
	PC8. conduct visual inspection of the two wheeler electric vehicle to identify defects in HV components and identify indirect faults in electrical/electronic aggregate due to other system/component	-	2	-	1
	PC9. assess mechanical aggregates such as brakes, suspension, axles etc. of the two wheeler electric vehicle for any external impact/bend/leak, incorrect level, wear & tear	1	2	-	1
	PC10. report the malfunctions/repairs in the two wheeler electric vehicle beyond own scope to the concerned person	-	1	-	-
	<i>Perform routine service and minor repairs</i>	12	18	-	5
	PC11. take precautions to avoid damage to the two wheeler electric vehicle and its components while working on various aggregates	1	2	-	-
	PC12. use appropriate tools, equipment, and consumables as per nature of job and Standard Operating Procedure (SOP) recommended by the organisation	1	2	-	1
	PC13. perform task on the HV system as per following stages: general and mechanical tasks on the two wheeler electric vehicle which do not require isolation of the HV systems, mechanical work in non-live state of the HV systems and replace parts in live state of the HV system	2	2	-	-
	PC14. test the two wheeler electric vehicle's electrical/electronic system functioning of two/three wheeler vehicle wherever applicable as per OEM SOP	2	3	-	2
	PC15. remove parts relevant to various mechanical aggregates of two wheeler electric vehicle and place them securely as specified by OEM	1	2	-	-
	PC16. clean and condition dismantled mechanical and electrical components of two wheeler electric vehicle prior to assembly	1	1	-	-
	PC17. perform minor repair/replacement/calibration of mechanical components/aggregates of the two/three wheeler electric vehicle such as brake pedal/lever free play adjustment, headlight beam alignment, etc.	2	3	-	1

	PC18. refill/replace, as required quantity and appropriate grade of brake or other fluid/lubricant in the two wheeler electric vehicle as per OEM guidelines	1	2	-	1
	PC19. maintain the documentation related to inspection, servicing and minor repair performed on the two wheeler electric vehicle	1	1	-	-
	<i>Assist lead technician in diagnosis or troubleshooting the faults</i>	8	10	-	5
	PC20. conduct test drive of the two wheeler electric vehicle to assist the lead technician in assessing the service/repair requirement or calibration/adjustments, if any	-	2	-	-
	PC21. follow lead technician instructions to choose and use the appropriate device/equipment to inspect/test the two wheeler electric vehicle/system/component performance to diagnose defect or faults	2	2	-	2
	PC22. carry out inspection or tests on the two wheeler electric vehicle mechanical and electrical systems according to lead technician instructions	2	2	-	2
	PC23. interpret and compare results of diagnostic inspections/tests with two wheeler electric vehicle specifications or regulatory requirements	2	2	-	1
	PC24. maintain the documentation related to inspections and troubleshooting performed on the two wheeler electric vehicle	1	1	-	-
	PC25. report the results to lead technician and seek assistance if further tests or inspections are required to conclude the diagnosis or troubleshooting	1	1	-	-
	<i>Post service/repair/diagnostic activities</i>	5	8	-	4
	PC26. check the performance of the two wheeler electric vehicle/aggregate post repair and report to lead technician/supervisor if further inspection is required by another specialist	2	3	-	2
	PC27. ensure completeness of tasks assigned before releasing the two wheeler electric vehicle for the next procedure	1	2	-	1
	PC28. dispose of materials such as old batteries, scrap of failed parts/aggregates as per organization's policies	1	2	-	1
	PC29. return leftover consumable/parts, tools/equipment, and report if any malfunctions are observed to the person concerned	1	1	-	-
Total Marks		30	50	-	20
ASC/N1321: Carry out routine service or minor repairs on 3 wheeler electric vehicle and assist in diagnosis	<i>Prepare to carry out routine service or minor repair and assist in fault diagnosis</i>	5	14	-	6
	PC1. review the job card and understand work to be carried out on three wheeler electric vehicle	-	1	-	1
	PC2. identify the auto components related to the various aggregates in the three wheeler electric vehicle	1	2	-	1

PC3. ensure no HV (High Voltage) activity is being conducted around workstation prior to commencement of work on three wheeler electric vehicle	1	1	-	-
PC4. collect workshop tools/measuring devices/equipment required to carry out job on three wheeler electric vehicle and check their condition/calibration	1	2	-	1
PC5. prepare three wheeler electric vehicle according to nature of job to be performed: general and mechanical/electrical work in non-live state/troubleshoot and replace parts in live state HV system	-	1	-	-
PC6. mark the three wheeler electric vehicle and safeguard the working area during electrical work	-	1	-	-
PC7. wear PPE according to nature of job to be performed on the three wheeler electric vehicle	1	1	-	1
PC8. conduct visual inspection of the three wheeler electric vehicle to identify defects in HV components and identify indirect faults in electrical/electronic aggregate due to other system/component	-	2	-	1
PC9. assess mechanical aggregates such as brakes, suspension, axles etc. of the three wheeler electric vehicle for any external impact/bend/leak, incorrect level, wear & tear	1	2	-	1
PC10. report the malfunctions/repairs in the three wheeler electric vehicle beyond own scope to the concerned person	-	1	-	-
<i>Perform routine service and minor repairs</i>	12	18	-	5
PC11. take precautions to avoid damage to the three wheeler electric vehicle and its components while working on various aggregates	1	2	-	-
PC12. use appropriate tools, equipment, and consumables as per nature of job and Standard Operating Procedure (SOP) recommended by the organisation	1	2	-	1
PC13. perform task on the HV system as per following stages: general and mechanical tasks on the three wheeler electric vehicle which do not require isolation of the HV systems, mechanical work in non-live state of the HV systems and replace parts in live state of the HV system	2	2	-	-
PC14. test the three wheeler electric vehicle's electrical/electronic system functioning of two/three wheeler vehicle wherever applicable as per OEM SOP	2	3	-	2
PC15. remove parts relevant to various mechanical aggregates of three wheeler electric vehicle and place them securely as specified by OEM	1	2	-	-
PC16. clean and condition dismantled mechanical and electrical components of three wheeler electric vehicle prior to assembly	1	1	-	-

	PC17. perform minor repair/replacement/calibration of mechanical components/aggregates of the three wheeler electric vehicle such as brake pedal/lever free play adjustment, headlight beam alignment, etc.	2	3	-	1
	PC18. refill/replace, as required quantity and appropriate grade of brake or other fluid/lubricant in the three wheeler electric vehicle as per OEM guidelines	1	2	-	1
	PC19. maintain the documentation related to inspection, servicing and minor repair performed on the three wheeler electric vehicle	1	1	-	-
	<i>Assist lead technician in diagnosis or troubleshooting the faults</i>	8	10	-	5
	PC20. conduct test drive of the three wheeler electric vehicle to assist the lead technician in assessing the service/repair requirement or calibration/adjustments, if any	-	2	-	-
	PC21. follow lead technician instructions to choose and use the appropriate device/equipment to inspect/test the three wheeler electric vehicle/system/component performance to diagnose defect or faults	2	2	-	2
	PC22. carry out inspection or tests on the three wheeler electric vehicle mechanical and electrical systems according to lead technician instructions	2	2	-	2
	PC23. interpret and compare results of diagnostic inspections/tests with three wheeler electric vehicle specifications or regulatory requirements	2	2	-	1
	PC24. maintain the documentation related to inspections and troubleshooting performed on the three wheeler electric vehicle	1	1	-	-
	PC25. report the results to lead technician and seek assistance if further tests or inspections are required to conclude the diagnosis or troubleshooting	1	1	-	-
	<i>Post service/repair/diagnostic activities</i>	5	8	-	4
	PC26. check the performance of the three wheeler electric vehicle/aggregate post repair and report to lead technician/supervisor if further inspection is required by another specialist	2	3	-	2
	PC27. ensure completeness of tasks assigned before releasing the three wheeler electric vehicle for the next procedure	1	2	-	1
	PC28. dispose of materials such as old batteries, scrap of failed parts/aggregates as per organization's policies	1	2	-	1
	PC29. return leftover consumable/parts, tools/equipment, and report if any malfunctions are observed to the person concerned	1	1	-	-
	Total Marks	30	50	-	20
ASC/N1452: Carry out routine service or minor repairs on heavy	<i>Prepare to carry out routine service or minor repair and assist in fault diagnosis</i>	5	14	-	6
	PC1. review the job card and understand work to be carried out on electric truck/bus	-	1	-	1

commercial electric vehicle and assist in diagnosis	PC2. identify the auto components related to the various aggregates in the electric truck/bus	1	2	-	1
	PC3. ensure no HV (High Voltage) activity is being conducted around workstation prior to commencement of work on the electric truck/bus	1	1	-	-
	PC4. collect workshop tools/measuring devices/equipment required to carry out job on the electric truck/bus and check their condition/calibration	1	2	-	1
	PC5. prepare the electric truck/bus according to nature of job to be performed: general and mechanical job on the vehicle/electrical work in non- live state/troubleshoot and replace parts in live state HV system	-	1	-	-
	PC6. mark the electric truck/bus and safeguard the working area during electrical work	-	1	-	-
	PC7. wear PPE according to nature of job to be performed on the electric truck/bus	1	1	-	1
	PC8. conduct visual inspection of the electric truck/bus to identify defects in HV components and identify indirect faults in electrical/electronic aggregate due to other system/component	-	2	-	1
	PC9. assess mechanical aggregates such as brakes, suspension, axles, transmission, steering etc. of the electric truck/bus for any external impact/bend/leak, incorrect level, wear & tear	1	2	-	1
	PC10. report the malfunctions/repairs in the electric truck/bus beyond own scope to the concerned person	-	1	-	-
	<i>Perform routine service and minor repairs</i>	12	18	-	5
	PC11. take precautions to avoid damage to the electric truck/bus and its components while working on various aggregates	1	2	-	-
	PC12. use appropriate tools, equipment, and consumables as per nature of job and Standard Operating Procedure (SOP) recommended by the organisation	1	2	-	1
	PC13. perform task on the HV system as per following stages: general and mechanical tasks on the electric truck/bus which do not require isolation of the HV systems, mechanical work in non-live state of the HV systems and replace parts in live state of the HV system	2	2	-	-
	PC14. test the heavy commercial electric vehicle's electrical/electronic system functioning of electric truck/bus wherever applicable as per OEM SOP	2	3	-	2
	PC15. remove parts relevant to various mechanical aggregates of electric truck/bus and place them securely as specified by OEM	1	2	-	-
	PC16. clean and condition dismantled mechanical and electrical components of electric truck/bus prior to assembly	1	1	-	-

	PC17. perform minor repair/replacement/calibration on electric truck/bus, systems such as drive line, mechanical/air suspension systems, air brakes & steering systems etc. including HVAC, etc.	2	3	-	1
	PC18. refill/replace, as required quantity and appropriate grade of fluid/lubricant in the electric truck/bus as per OEM guidelines	1	2	-	1
	PC19. maintain the documentation related to inspection, servicing and minor repair performed on the electric truck/bus	1	1	-	-
	<i>Assist lead technician in diagnosis or troubleshooting the faults</i>	8	10	-	5
	PC20. conduct test drive of the electric truck/bus to assist the lead technician in assessing the service/repair requirement or calibration/adjustments, if any	-	2	-	-
	PC21. follow lead technician instructions to choose and use the appropriate device/equipment to inspect/test system/component of electric truck/bus performance to diagnose defect or faults in electric vehicle	2	2	-	2
	PC22. carry out inspection or test on mechanical and electrical systems of electric truck/bus according to lead technician instructions	2	2	-	2
	PC23. interpret and compare results of diagnostic inspections/tests with electric truck/bus specifications or regulatory requirements	2	2	-	1
	PC24. maintain the documentation related to inspections and troubleshooting performed on the electric truck/bus	1	1	-	-
	PC25. report the results to lead technician and seek assistance if further tests or inspections are required to conclude the diagnosis or troubleshooting	1	1	-	-
	<i>Post service/repair/diagnostic activities</i>	5	8	-	4
	PC26. check the performance of electric truck/bus aggregate post repair and report to lead technician/supervisor if further inspection is required by another specialist	2	3	-	2
	PC27. ensure completeness of tasks assigned before releasing the electric truck/bus for the next procedure	1	2	-	1
	PC28. dispose of materials such as old batteries, scrap of failed parts/aggregates as per organization's policies	1	2	-	1
	PC29. return leftover consumable/parts, tools/equipment, and report if any malfunctions are observed to the person concerned	1	1	-	-
	Total Marks	30	50	-	20
DGT/VSQ/N0102 - Employability Skills (60 hours)	<i>Introduction to Employability Skills</i>	1	1	-	-
	PC1. identify employability skills required for jobs in various industries	-	-	-	-
	PC2. identify and explore learning and employability portals	-	-	-	-
	<i>Constitutional values – Citizenship</i>	1	1	-	-

PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
PC4. follow environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	2	4	-	-
PC5. recognize the significance of 21st Century Skills for employment	-	-	-	-
PC6. practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC7. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
PC9. write short messages, notes, letters, e-mail etc. in English	-	-	-	-
<i>Career Development & Goal Setting</i>	1	2	-	-
PC10. understand the difference between job and career	-	-	-	-
PC11. prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-
<i>Communication Skills</i>	2	2	-	-
PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
PC13. work collaboratively with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	2	-	-
PC14. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC15. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
<i>Financial and Legal Literacy</i>	2	3	-	-
PC16. select financial institutions, products and services as per requirement	-	-	-	-
PC17. carry out offline and online financial transactions, safely and securely	-	-	-	-
PC18. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
<i>Essential Digital Skills</i>	3	4	-	-
PC20. operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
PC22. use basic features of word processor, spreadsheets, and presentations	-	-	-	-
<i>Entrepreneurship</i>	2	3	-	-

PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
Customer Service	1	2	-	-
PC26. identify different types of customers	-	-	-	-
PC27. identify and respond to customer requests and needs in a professional manner.	-	-	-	-
PC28. follow appropriate hygiene and grooming standards	-	-	-	-
Getting ready for apprenticeship & Jobs	2	3	-	-
PC29. create a professional Curriculum vitae (Résumé)	-	-	-	-
PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC31. apply to identified job openings using offline /online methods as per requirement	-	-	-	-
PC32. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
Total Marks	20	30	-	-

Annexure: Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

Mention the detailed assessment strategy in the provided template.

1. Assessment System Overview:

- Batches assigned to the assessment agencies for conducting the assessment on SDMS/SIP or email
- Assessment agencies send the assessment confirmation to VTP/TC looping SSC
- Assessment agency deploys the ToA certified Assessor for executing the assessment
- SSC monitors the assessment process & records

2. Testing Environment:

- Confirm that the centre is available at the same address as mentioned on SDMS or SIP
- Check the duration of the training.
- Check the Assessment Start and End time to be as 10 a.m. and 5 p.m.
- If the batch size is more than 30, then there should be 2 Assessors.
- Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.

- Check the mode of assessment—Online (TAB/Computer) or Offline (OMR/PP).
 - Confirm the number of TABs on the ground are correct to execute the Assessment smoothly.
 - Check the availability of the Lab Equipment for the particular Job Role.
3. Assessment Quality Assurance levels / Framework:
- Question papers created by the Subject Matter Experts (SME)
 - Question papers created by the SME verified by the other subject Matter Experts
 - Questions are mapped with NOS and PC
 - Question papers are prepared considering that level 1 to 3 are for the unskilled & semi-skilled individuals, and level 4 and above are for the skilled, supervisor & higher management
 - Assessor must be ToA certified & trainer must be ToT Certified
 - Assessment agency must follow the assessment guidelines to conduct the assessment
4. Types of evidence or evidence-gathering protocol:
- Time-stamped & geotagged reporting of the assessor from assessment location
 - Centre photographs with signboards and scheme specific branding
 - Biometric or manual attendance sheet (stamped by TP) of the trainees during the training period
 - Time-stamped & geotagged assessment (Theory + Viva + Practical) photographs & videos
5. Method of verification or validation:
- Surprise visit to the assessment location
 - Random audit of the batch
 - Random audit of any candidate
6. Method for assessment documentation, archiving, and access
- Hard copies of the documents are stored
 - Soft copies of the documents & photographs of the assessment are uploaded / accessed from Cloud Storage
 - Soft copies of the documents & photographs of the assessment are stored in the Hard Drives

Annexure: Acronym and Glossary

Acronym	Description
AA	Assessment Agency
AB	Awarding Body
ISCO	International Standard Classification of Occupations
NCO	National Classification of Occupations
NCrF	National Credit Framework
NOS	National Occupational Standard(s)
NQR	National Qualification Register
NSQF	National Skills Qualifications Framework

OJT	On the Job Training
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Glossary

Term	Description
National Occupational Standards (NOS)	NOS define the measurable performance outcomes required from an individual engaged in a particular task. They list down what an individual performing that task should know and also do.
Qualification	A formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards
Qualification File	A Qualification File is a template designed to capture necessary information of a Qualification from the perspective of NSQF compliance. The Qualification File will be normally submitted by the awarding body for the qualification.
Sector	A grouping of professional activities on the basis of their main economic function, product, service or technology.
Long Term Training	Long-term skilling means any vocational training program undertaken for a year and above. https://ncvet.gov.in/sites/default/files/NCVET.pdf