



## QUALIFICATION FILE

### Four Wheeler 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.	<b>Qualification Name</b>	<b>Four Wheeler Service Technician</b>																
2.	<b>Sector/s</b>	<b>Automotive</b>																
3.	<b>Type of Qualification:</b> <input type="checkbox"/> New <input checked="" type="checkbox"/> Revised <input type="checkbox"/> Has Electives/Options <input type="checkbox"/> OEM	<b>NQR Code &amp; version of existing/previous qualification:</b> 2020/AUT/ASDC/03891, V5.0	<b>Qualification Name of existing/previous version:</b> Four Wheeler Service Technician, V5.0															
4.	<b>a. OEM Name</b> <b>b. Qualification Name</b> (Wherever applicable)																	
5.	<b>National Qualification Register (NQR) Code &amp; Version</b> (Will be issued after NSQC approval)	QG-04-AU-02943-2024-V2-ASDC	<b>6. NCrF/NSQF Level: 4</b>															
7.	<b>Award (Certificate/Diploma/Advance Diploma/ Any Other)</b> (Wherever applicable specify multiple entry/exits also & provide details in annexure)	Certificate																
8.	<b>Brief Description of the Qualification</b>	A Four Wheeler Service Technician is responsible for the repair, routine servicing and maintenance (including electrical and mechanical aggregates) of vehicles																
9.	<b>Eligibility Criteria for Entry for Student/Trainee/Learner/Employee</b>	<b>a. Entry Qualification &amp; Relevant Experience:</b> <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 + NAC/NTC</td> <td></td> </tr> <tr> <td>2</td> <td>11th Class</td> <td>1.5 years of relevant experience</td> </tr> <tr> <td>3</td> <td>10th Class pass</td> <td>3 years of relevant experience</td> </tr> <tr> <td>4</td> <td>Certificate-NSQF (Four Wheeler Service Assistant Level 3)</td> <td>3 years of relevant experience</td> </tr> </tbody> </table> <b>b. Age:</b> 18 years		S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)	1	10th Class + NAC/NTC		2	11th Class	1.5 years of relevant experience	3	10th Class pass	3 years of relevant experience	4	Certificate-NSQF (Four Wheeler Service Assistant Level 3)	3 years of relevant experience
S. No.	Academic/Skill Qualification (with Specialization - if applicable)	Required Experience (with Specialization - if applicable)																
1	10th Class + NAC/NTC																	
2	11th Class	1.5 years of relevant experience																
3	10th Class pass	3 years of relevant experience																
4	Certificate-NSQF (Four Wheeler Service Assistant Level 3)	3 years of relevant experience																
10.	<b>Credits Assigned to this Qualification, Subject to Assessment</b> (as per National Credit Framework (NCrF))	16	<b>11. Common Cost Norm Category (I/II/III)</b> (wherever applicable): I															
12.	<b>Any Licensing requirements for Undertaking Training on This Qualification</b> (wherever applicable)	Driving License and Basic Computer Skills																

13.	<b>Training Duration by Modes of Training Delivery</b> ( <i>Specify Total Duration as per selected training delivery modes and as per requirement of the qualification</i> )	<input checked="" type="checkbox"/> Offline <input type="checkbox"/> Online <input type="checkbox"/> Blended					
		<b>Training Delivery Modes</b>	<b>Theory (Hours)</b>	<b>Practical (Hours)</b>	<b>OJT Mandatory (Hours)</b>	<b>OJT Recommended (Hours)</b>	<b>Total (Hours)</b>
		<b>Classroom (offline)</b>	154:00	296:00	30:00		480:00
		<b>Online</b>					
(Refer Blended Learning Annexure for details)							
14.	<b>Aligned to NCO/ISCO Code/s</b> ( <i>if no code is available mention the same</i> )	NCO-2015/3115.0602					
15.	<b>Progression path after attaining the qualification</b> ( <i>Please show Professional and Academic progression</i> )	Four Wheeler Service Lead Technician (Level 5)					
16.	<b>Other Indian languages in which the Qualification &amp; Model Curriculum are being submitted</b>	NA					
17.	<b>Is similar Qualification(s) available on NQR-if yes, justification for this qualification</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>URLs of similar Qualifications:</b>					
18.	<b>Is the Job Role Amenable to Persons with Disability</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <b>If "Yes", specify applicable type of Disability:</b>					
19.	<b>How Participation of Women will be Encouraged</b>	No gender sensitization, by creating awareness in women and training them					
20.	<b>Are Greening/ Environment Sustainability Aspects Covered</b> ( <i>Specify the NOS/Module which covers it</i> )	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
21.	<b>Is Qualification Suitable to be Offered in Schools/Colleges</b>	<b>Schools</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <b>Colleges</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
22.	<b>Name and Contact Details of Submitting / Awarding Body SPOC</b> ( <i>In case of CS or MS, provide details of both Lead AB &amp; Supporting ABs</i> )	<b>Name:</b> Mr. Arindam Lahiri <b>Email:</b> ceo@asdc.org.in <b>Contact No.:</b> 011-42599800 <b>Website:</b> https://www.asdc.org.in/					
23.	<b>Final Approval Date by NSQC:</b> 27-08-2024	<b>24. Validity Duration:</b> 3 Years			<b>25. Next Review Date:</b> 27-08-2027		

## 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.	Employability Skills (60 hours)	DGT/VSQ/N0102, v1.0	Non-Core	4	2	24	36			60	20	30			50	10
3.	Assist in performing diagnosis of vehicle for repair requirements	ASC/N1402, v2.0	Core	4	5	45	90	15		150	30	50		20	100	25
4.	Carry out routine service and minor repairs	ASC/N1403, v2.0	Core	4	7	60	135	15		210	30	50		20	100	50
Duration (in Hours) / Total Marks					16	154	296	30		480	130	160		60	350	100

## Elective 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																

## 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.	<b>Trainer's Qualification and experience in the relevant sector (in years)</b> (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 in Four Wheeler Service Or ITI (Mechanic Motor Vehicle/Mechanic Auto Electrical and Electronics/Diesel Mechanic) with 5 years industry experience in Four Wheeler Service Or Diploma (Automobile Engineering/Mechanical Engineering) with 3 years industry experience and 1 year training experience in Four Wheeler Service Or Diploma (Automobile Engineering/ Mechanical Engineering) with 4 years industry experience and 0 year training experience in Four Wheeler Service Or Certificate-NSQF Level 6 (Four Wheeler Master Technician) with 3 years industry experience and 1 year training experience in Four Wheeler Service
2.	<b>Master Trainer's Qualification and experience in the relevant sector (in years)</b> (as per NCVET guidelines)	B.E./ B.Tech (Automobile Engineering/ Mechanical Engineering) - 4 years industry experience and 2 year training experience

3.	<b>Tools and Equipment Required for Training</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If “Yes”, details to be provided in Annexure)
4.	<b>In Case of Revised Qualification, Details of Any Upskilling Required for Trainer</b>	

## Section 4: Assessment Related

1.	<b>Assessor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b>	ITI (Mechanic Motor Vehicle/Mechanic Auto Electrical and Electronics/Diesel Mechanic) with 5 years industry experience and 1 year training experience in Four Wheeler Service Or ITI (Mechanic Motor Vehicle/Mechanic Auto Electrical and Electronics/Diesel Mechanic) with 6 years industry experience in Four Wheeler Service Or Diploma (Automobile Engineering/Mechanical Engineering) with 4 years industry experience and 1 year training experience in Four Wheeler Service Or Diploma (Automobile Engineering/ Mechanical Engineering) with 5years industry experience and 0 year training experience in Four Wheeler Service Or Certificate-NSQF Level 6 (Four Wheeler Master Technician) with 4 years industry experience and 1 year training experience in Four Wheeler Service
2.	<b>Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b>	NA
3.	<b>Lead Assessor's/Proctor's Qualification and experience in relevant sector (in years) (as per NCVET guidelines)</b>	NA
4.	<b>Assessment Mode (Specify the assessment mode)</b>	Blended
5.	<b>Tools and Equipment Required for Assessment</b>	<input checked="" type="checkbox"/> Same as for training <input type="checkbox"/> Yes <input type="checkbox"/> 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.	<b>Latest Skill Gap Study (not older than 2 years) (Yes/No):</b> Yes
2.	<b>Latest Market Research Reports or any other source (not older than 2 years) (Yes/No):</b> Yes
3.	<b>Government /Industry initiatives/ requirement (Yes/No):</b> Yes
4.	<b>Number of Industry validation provided:</b>
5.	<b>Estimated nos. of persons to be trained and employed:</b> 500
6.	<b>Evidence of Concurrence/Consultation with Line Ministry/State Departments:</b> In progress If “No”, why:

## Section 6: Annexure &amp; Supporting Documents Check List

Specify Annexure Name / Supporting document file name

1.	<b>Annexure:</b> NCrf/NSQF level justification based on NCrf level/NSQF descriptors <i>(Mandatory)</i>	Attached
2.	<b>Annexure:</b> List of tools and equipment relevant for qualification <i>(Mandatory, except in case of online course)</i>	Attached
3.	<b>Annexure:</b> Detailed Assessment Criteria <i>(Mandatory)</i>	Attached
4.	<b>Annexure:</b> Assessment Strategy <i>(Mandatory)</i>	Attached
5.	<b>Annexure:</b> Blended Learning <i>(Mandatory, in case selected Mode of delivery is “Blended Learning”)</i>	Filled
6.	<b>Annexure:</b> Multiple Entry-Exit Details <i>(Mandatory, in case qualification has multiple Entry-Exit)</i>	Filled
7.	<b>Annexure:</b> Acronym and Glossary <i>(Optional)</i>	
8.	<b>Supporting Document:</b> Model Curriculum <i>(Mandatory – Public view)</i>	Attached
9.	<b>Supporting Document:</b> Career Progression <i>(Mandatory - Public view)</i>	Attached
10.	<b>Supporting Document:</b> Occupational Map <i>(Mandatory)</i>	Attached
11.	<b>Supporting Document:</b> Assessment SOP <i>(Mandatory)</i>	Attached
12.	<b>Any other document you wish to submit:</b>	



## 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
<b>Professional Theoretical Knowledge/Process</b>	Assist the service technician in diagnosing the faults and carry out routine service / minor repairs of mechanical / electrical aggregates of the vehicle	Theoretical & Practical skill required for assisting in repairing/servicing 4-wheeler vehicles or performing the task individually. Since the individual is required to take instructions from supervisors, hence this is level 4.	4
<b>Professional and Technical Skills/ Expertise/ Professional Knowledge</b>	Knowledge related to conducting test drive to identify, diagnose and repair the vehicle in a scheduled manner	Factual and theoretical knowledge in the field of repairing/servicing of 4-wheeler vehicles. No deeper knowledge or skills are required for this individual, hence this is level 4.	4
<b>Employment Readiness &amp; Entrepreneurship Skills &amp; Mind-set/Professional Skill</b>	<ul style="list-style-type: none"> <li>Identify the work requirement to schedule timely completion accordingly</li> <li>Demonstrate conducting the test drive to identify the fault</li> <li>Apply the knowledge about the various systems / components / aggregates in diagnosing and repairing the faults</li> <li>Follow the steps of inspection, diagnosis and repair as per standard operating procedures</li> <li>Demonstrate the process of performing</li> <li>routine service of the vehicle</li> </ul>	Range of cognitive and practical skill required for the repairing/servicing of 4-wheeler vehicles. Hence this is level 4.	4
<b>Broad Learning Outcomes/Core Skill</b>	Effective skill in writing, reading and oral communication (listening and speaking skills) with required clarity	Skill to communicate written or oral with required clarity, but not to manage/ supervise others. Hence this is level 4.	4
<b>Responsibility</b>	Responsible for completing the assigned task, effective team working, safety of self and in workplace	Accountable for own work and learning in the domain of repairing/servicing of 4-wheeler vehicles and hence this is level 4.	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	Diesel Engine mounted on rotating stand	as recommended by manufacturer	1
2	Petrol Engine mounted on rotating stand	as recommended by manufacturer	1
3	Gear Box mounted on stand (MT)	as recommended by manufacturer	1
4	Gear Box mounted on stand (AT)	as recommended by manufacturer	1
5	Transfer Case (4WD)	as recommended by manufacturer	1
6	Rear Axle with differential	as recommended by manufacturer	1
7	Steering System Hydraulic	as recommended by manufacturer	1
8	Brake System - hydraulic and vacuum circuit component (wheel brakes, Master cylinder, Booster, Vacuum pump, ABS unit)	as recommended by manufacturer	1
9	Trash Bin	15 ~20 ltr.	1
10	Propeller shaft	as recommended by manufacturer	1
11	Starter Motor	as recommended by manufacturer	1
12	Alternator	as recommended by manufacturer	1
13	Fuel Pump (12V electrical fuel pump)	as recommended by manufacturer	1
14	Water Pump	as recommended by manufacturer	1
15	HVAC components (AC compressor, condenser, evaporator, heater, condenser fan etc.)	as recommended by manufacturer	1
16	Turbo Charger	as recommended by manufacturer	1
17	EGR Valve	as recommended by manufacturer	1
18	AC compressor Oil	(as recommended by manufacturer)	500
19	Refrigerant	(R-134a)	10
20	Engine Oil	as recommended by manufacturer	15
21	Gear Oil	as recommended by manufacturer	10
22	Automatic Transmission Fluid	as recommended by manufacturer	5
23	Brake Oil	as recommended by manufacturer	1
24	Coolant	as recommended by manufacturer	20
25	Nuts, Bolts, Rivets, O ring, Gaskets & Packings	(One time usable as specified by manufacturer)	As per Specified by Manufacture
26	Insulation Tape	PVC	5
27	Grease	as recommended by manufacturer	1
28	Double side adhesive Tape	as recommended by manufacturer	1
29	Degreaser	as recommended by manufacturer	1
30	Fuses	(5A~60 A)	5
31	Wires	(0.5~4.0 mm)	30
32	Adhesive	as recommended by manufacturer	1

33	Soldering Iron and paste	as recommended by manufacturer	1
34	Aggregate (cut section models of Engine, Gearbox (MT and AT), Turbo Charger)	as recommended by manufacturer	1
35	Failed parts display with cause-and-effect analysis - clutch set, piston, shock absorber, ball joint, suspension arm, link rod, engine mounting, brake disc, wheel cylinder, electrical component (power window switch, combination switch, ignition switch, relay, window regulator) sensors, actuators, etc.)	as recommended by manufacturer	1
36	Tools Trolley	as recommended by manufacturer	3
37	Wire Brush	as recommended by manufacturer	3
38	Long Nose Pliers	6"	3
39	Combination Pliers	8"	3
40	Ball Pein Hammer Set	as recommended by manufacturer	3
41	Plastic Hammer	as recommended by manufacturer	3
42	Rubber Hammer	680GM-24Oz	3
43	Set Of Feeler Gauge	as recommended by manufacturer	3
44	Set of Ring Spanners -	(6x7 To 30x32)	3
45	Set of open-end Spanners	(6x7 To 30x32)	3
46	Set of Combination spanners	(6-32mm)	3
47	Set of Combination Ratchet Spanners	(8mm - 19mm)	3
48	Set of Flexi head Combination ratchet Spanners	(8mm - 19mm)	3
49	Square Drive Socket, Ratchet and Extension set	(1/4" (6-14 mm)	3
50	Hex Key Set	10 pc	3
51	T Handle Hex key Set-	8 PC 2.0,2.5,3.0,4.0,5.0,6.0,8.0,10.0mm	3
52	Set Of Screw Drivers	(Philps and flat)	3
53	Inspection LED lamp	(8W, 220V -Rechargeable Type)	3
54	Mechanics Creeper	as recommended by manufacturer	3
55	Cold Chisel set	7/8"/22MM	3
56	Punch set	8MM-5/16 X 115MM-4 1/2	3
57	Needle file Set	6 pcs	3
58	Parts Tray	(18x15x4)	3
59	Snap ring expander	(Internal -130MM-5"180MM-7"and external-130MM-5",180MM-7")	3
60	Screw Driver Set	(T8,T10,T15,T20,T25)	3
61	Electrical circuit board (Starting, charging)	as recommended by manufacturer	1
62	Electrical circuit board (Lighting)	as recommended by manufacturer	1
63	Air Blow Gun	as recommended by manufacturer	1

64	Hand Held Drill machine with Drill bits (Electric)	Power: 380 W Speed: 0-2600 rpm	1
65	Angle Grinder with Blades (Electric)	Max Disc Diameter: 100 mm, 850 Watt, Heavy Duty Small Angle Grinder	1
66	Trash Bin	80 ltr	1
67	Bench Vice with Soft jaws	100mmx4"	1
68	Service, Repair, Wiring, Diagnostic Manuals	As per Vehicle/component/Accessory manufacturer	1
69	Almira for keeping tools	6' Height x 3'Width x 1.75' Depth and 18 Gauge	1
70	Work tables (Wooden or Fabricated)	120 cmx90cmx80cm (app.) Strong enough to carry min 200 Kg Load	2
71	Hot Air Gun	as recommended by manufacturer	1
72	Bench Grinder	(Twin wheel-6" Dia)	1
73	Hydraulic Press	(H -Type ,Capacity -(1.0T )	1
74	Parts washer 60l	as recommended by manufacturer	1
75	2-Post Lift (Capacity -3.0 T)	as recommended by manufacturer	1
76	4- Post Lift (Capacity - 4.0t - Complete with Wheel Alignment Attachments)	as recommended by manufacturer	1
77	Engine Lifting Jib Crane ( .0 T)	as recommended by manufacturer	1
78	Garage Jack (3.0 T Min Ht 140mm, Max 495 Mm)	as recommended by manufacturer	1
79	Hand Pallet Truck	(300-500 kg)	1
80	Air Compressor	as recommended by manufacturer	1
81	Compressed Air Dryer	as recommended by manufacturer	1
82	Wheel Balancer	as recommended by manufacturer	1
83	Tyre Changer	as recommended by manufacturer	1
84	Tyre Inflator	as recommended by manufacturer	1
85	Smoke Extractor	as recommended by manufacturer	1
86	DG Set	as recommended by manufacturer	1
87	Aggregate and parts display tables (wooden or Fabricated)	as recommended by manufacturer	1
88	Measuring Tape	( 5mtr.)	2
89	Steel Rule	12" & 24"	1
90	Vernier Callipers	(150 , 300 mm)	3
91	Micrometer Set	(Size :-0~25, 25~50, 50~100 mm)	3
92	Cylinder bore gauge	(50 -150 mm)	1
93	Dial Indicator with magnetic stand	as recommended by manufacturer	1
94	Depth Gauge	( 150 mm)	1
95	V- Block	( Set of 2 - 125x75x75 mm)	1
96	Right angle	( 150x200 mm)	1
97	Surface plate	( 600 x 600 mm)	1

98	Straight edge	( 300 mm, 500 mm, & 600 mm )	1
99	Hand Spring scale	( 5~10 kgs )	1
100	Torque wrench	(0.5~3.5 kgm, 3~14 kgm, 5~22 kgm, 7~35 kgm)	3
101	Torque dial gauge	as recommended by manufacturer	1
102	Screw Pitch Gauge	as recommended by manufacturer	1
103	Measuring Can Set	(0-1000 ml, 1.0 ltr, 3ltr & 5Ltr)	1
104	Push Pull Gauge (0-25 kg)	as recommended by manufacturer	1
105	Non-contact digital thermometer.	as recommended by manufacturer	1
106	Plastic gauge	as recommended by manufacturer	1
107	Safety Goggles	Anti fog	10
108	Gloves	Cotton	150
109	Gloves	Palm side PU coated	75
110	Gloves	Nitrile	75
111	Gloves	Lint free	75
112	Ear Plug	as recommended by manufacturer	30
113	Safety Shoes	as recommended by manufacturer	30
114	Overall/Apron	as recommended by manufacturer	10
115	Hard Hats	as recommended by manufacturer	10
116	Dust Mask	as recommended by manufacturer	30
117	Fire extinguisher	As per Regulation	As per guideline
118	First Aid Kit	As per Regulation	1
119	Wheel Choke	Set Of Four	1
120	Safety Stand	Set Of Four (Min Ht 300 Mm, Max 450mm )	1
121	Safety cone to block area of working	as recommended by manufacturer	4
122	Open End torque wrench with Accessories	Suitable for Passenger cars	1
123	Vehicle or Aggregate - Special Service Tools (Manufacturer specific according to Vehicle / aggregate)	Related to Vehicle's routine service, maintenance and minor repair	1
124	Refractometer	as recommended by manufacturer	1
125	Adjustable Wrench	(450 mm)	1
126	Adjustable Oil Filter Wrench	as recommended by manufacturer	1
127	C Clamp	as recommended by manufacturer	1
128	Small oil-filter wrench	OEM Specified	1
129	Oil Filling Pump	as recommended by manufacturer	1
130	Heavy Duty Riveter	as recommended by manufacturer	1
131	Hacksaw Frame with Blade	as recommended by manufacturer	1
132	Tap and Die set	as recommended by manufacturer	1
133	Screw Extractor set	as recommended by manufacturer	1
134	Fuel canister (20l)	as recommended by manufacturer	1
135	Drain Pan/ Tray Set	as recommended by manufacturer	1
136	Cooling System Bleeding Tool Kit	as recommended by manufacturer	1
137	Vacuum Hand Pump Kit	as recommended by manufacturer	1

138	Trim removal tool kit	as recommended by manufacturer	1
139	Oil Can	as recommended by manufacturer	1
140	Square Drive Socket, Ratchet and Extensions Set	3/8" Sq. Dr Standard with Ratchet & Extensions (Size 8-16 mm)	1
141	Square Drive Deep Socket Set	1/2" Sq. Dr Standard with Ratchet & Extensions (Size 8-34 mm)	1
142	Magnetic Pickup Tool (Bar)	as recommended by manufacturer	1
143	Spark Plug Cleaning Machine	as recommended by manufacturer	1
144	Brake line bleeding Machine	as recommended by manufacturer	1
145	Exhaust Gas Analyzer Petrol	as recommended by manufacturer	1
146	Exhaust Gas Analyzer Diesel	as recommended by manufacturer	1
147	Oil pressure gauge with suitable adapters (0-10kg/cm <sup>2</sup> )	as recommended by manufacturer	1
148	Radiator Pressure Gauge with suitable adapters.	as recommended by manufacturer	1
149	Compression gauge (Diesel and Petrol Engine) with suitable adapters.	as recommended by manufacturer	1
150	Brake Fluid tester	as recommended by manufacturer	1
151	Fuel Pressure tester (Deisel & Petrol)	as recommended by manufacturer	1
152	Vacuum Gauge with suitable adapters	as recommended by manufacturer	1
153	Four wheeler with AC (In running condition)-Diesel (BS6)	as recommended by manufacturer	1
154	Four wheeler with AC (In running condition)-Petrol - MPFI	as recommended by manufacturer	1
155	Demo-Four wheeler with Automatic Transmission	as recommended by manufacturer	1
156	Demo-Four wheeler with AMT Transmission	as recommended by manufacturer	1
157	Demo-Four wheeler with Four wheel drive	as recommended by manufacturer	1
158	Seat Cover	Reusable	2
159	Fender Covers	Reusable	2
160	Steering Cover	Reusable	2
161	Gear Lever Knob Cover	Reusable	2
162	Floor Mats	Reusable	2
163	Belt Buckle Cover	Reusable	30
164	Battery Booster Cable	(300a (Jump Start Cable)	1
165	Battery tester	as recommended by manufacturer	1
166	Battery Charger	12V	1
167	Digital Thermometer (Industrial)	range -50 to 300 degree C	1
168	Ac Gas Charger	(R134a)	1
169	Ac Gas UV Leak Detector Kit	as recommended by manufacturer	1
170	Manifold Gauge	as recommended by manufacturer	1

171	Hydro meter	as recommended by manufacturer	3
172	Electrical Solder (Iron/ gun)	(60W)	1
173	Head Lamp Beam Aligner	as recommended by manufacturer	1
174	Scan Tool	as recommended by manufacturer	1
175	Digital Multimeter	as recommended by manufacturer	5
176	Clamp Meter	as recommended by manufacturer	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.

S. No	Organization Name	Representative Name	Designation	Contact Address	Contact Phone No	E-mail ID	LinkedIn Profile (if available)
1	NSEPF Assessment Pvt Ltd	Ashish Kumar	CEO	Noida, UP			
2	Sparsh Kia	Paramveer Mehta	V. P Sparsh	New Delhi			
3	Sparsh Tata	Paramveer Mehta	V. P Sparsh	New Delhi			
4	Morris Garages Cars	Pankaj Talwar	Group Trainer	Dwarka			
5	Skillmate technologies pvt ltd	Gajanan R. Trikutkar	Director & Co-Founder	Pune, Maharashtra			
6	Celica Automotive Pvt Ltd	Archa Halder	Technical Manager	Kolkata, West Bengal			
7	DMC Finishing SchooI Pvt. Ltd	Dr. Sanjay Zope	Director	Pune, Maharashtra			
8	Kuttukaran Foundation	Dr. B. Prasannakumari	Director	Ernakulam, Kerela			
9	USP	Virender Kumar Bhardwaj	President & MD	Gurugram, Haryana			
10	Popular vehicle and service ltd	Benny K J	Vice president HR	Kochi, Kerela			
11	Shriniwas Manresources pvt ltd	Ramdas Kusalkar	Director	Pune, Maharashtra			
12	Tamil Nadu Smart and Advanced Manufacturing Centre	Sukhpreet Singh	CEO	Chennai, TN			
13	Allied Resources Management Services pvt ltd	Netra Salvi	Director	Pune, Maharashtra			
14	MEGA CORPSOL LLP	Dhairyasheel Desai	Director	Pune, Maharashtra			

## Annexure: Training &amp; Employment Details

## Training and Employment Projections:

Year	Total Candidates	Women	People with Disability
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	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities	Estimated Training #	Estimated Employment Opportunities
2023-24	500	350	200	140	50	35
2024-25	1000	700	400	280	100	70
2025-26	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:**

## 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	<input checked="" type="checkbox"/> Theory/ Lectures - Imparting theoretical and conceptual knowledge	<ul style="list-style-type: none"> <li>• Books/ e-books</li> <li>• Presentations</li> <li>• Reference Material</li> <li>• Audio / Video Modules</li> </ul>	40:60
2	<input checked="" type="checkbox"/> Imparting Soft Skills, Life Skills, and Employability Skills /Mentorship to Learners	<ul style="list-style-type: none"> <li>• Self-Learning Videos</li> <li>• Broadcasts</li> <li>• Mobile Learning</li> <li>• Curated Digital content</li> </ul>	40:60
3	<input checked="" type="checkbox"/> Showing Practical Demonstrations to the learners	<ul style="list-style-type: none"> <li>• Video Content</li> <li>• E-Resource library</li> <li>• AR/ VR/ XR</li> </ul>	40:60
4	<input checked="" type="checkbox"/> Imparting Practical Hands-on Skills/ Lab Work/ workshop/ shop floor training	<ul style="list-style-type: none"> <li>• Training tools (tools list attached)</li> <li>• Video Play</li> <li>• Presentations</li> </ul>	40:60
5	<input checked="" type="checkbox"/> Tutorials/ Assignments/ Drill/ Practice	<ul style="list-style-type: none"> <li>• Online Question Bank</li> <li>• Mobile Quick test app</li> <li>• MCQ based tests</li> </ul>	40:60
6	<input checked="" type="checkbox"/> Proctored Monitoring/ Assessment/ Evaluation/ Examinations	<ul style="list-style-type: none"> <li>• Assessment engine for Essays</li> <li>• Up-loadable file examinations</li> <li>• Mock test sessions</li> </ul>	40:60
7	<input checked="" type="checkbox"/> On the Job Training (OJT)/ Project Work Internship/ Apprenticeship Training	<ul style="list-style-type: none"> <li>• Online tests</li> <li>• Offline assessments</li> </ul>	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
<b>ASC/N9801 – Organize work and resources (Service)</b>	<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 their 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
	<b>Total Marks</b>	<b>50</b>	<b>30</b>	<b>-</b>	<b>20</b>
<b>ASC/N1402: Assist in performing diagnosis of vehicle for repair requirements</b>	<i>Assist in fault diagnosis of the vehicle</i>	<b>11</b>	<b>26</b>	<b>-</b>	<b>10</b>
	PC1. review the job card to understand customer complaints	5	-	-	-
	PC2. conduct test drive of the vehicle to assist the lead technician in identifying the faults	-	8	-	-
	PC3. assist in diagnosing the faults in the various sub-assemblies of the vehicle, using workshop tools, equipment, checklists and standard OEM operating procedures w.r.t. improper servicing, low levels of oils etc.	6	10	-	5
	PC4. take precautions to avoid damage to the vehicle and its components during diagnosis or troubleshooting the faults	-	8	-	5
	<i>Perform post diagnosis routine</i>	<b>19</b>	<b>24</b>	<b>-</b>	<b>10</b>
	PC5. maintain the documentation related to procedures of inspecting/diagnosing the faults	4	-	-	-
	PC6. arrange appropriate tools and equipment required for the job	5	8	-	5
	PC7. report the malfunctions if any, in the tools/equipment to the person concerned for rectification	5	-	-	-
	PC8. report the malfunctions/repairs in the vehicle beyond own scope to the concerned person	5	8	-	5
	PC9. move and park the vehicle safely in the workshop, especially when some aggregate to be diagnosed is to be disassembled	-	8	-	-
	<b>Total Marks</b>	<b>30</b>	<b>50</b>	<b>-</b>	<b>20</b>
<b>ASC/N1403: Carry out routine service and minor repairs</b>	<i>Prepare to carry out routine service and minor repairs</i>	<b>11</b>	<b>10</b>	<b>-</b>	<b>2</b>
	PC1. identify the auto component manufacturer specifications related to the various components/aggregates in the vehicle	5	-	-	-
	PC2. review the job card and understand work to be carried out	3	-	-	-
	PC3. conduct test drive to assess calibration, other adjustments and repairs if any, in the electrical/mechanical aggregates of the vehicle	-	5	-	-
	PC4. inspect the machining/repair done by outside source/local machining garages	-	5	-	2
	PC5. use checklist for confirming routine servicing tasks and coordinate with superior for non-routine service or repair, if any	3	-	-	-
	<i>Perform routine service and minor repairs of mechanical &amp; electrical aggregates</i>	<b>13</b>	<b>35</b>	<b>-</b>	<b>15</b>
	PC6. use workshop tools and equipment for service and minor aggregate repairs, as per standard operating procedures	-	5	-	2
	PC7. perform routine service/maintenance of various parts and aggregates including engine, sub- assemblies and systems, drive line, chassis, suspension, brake, electrical components etc.	-	5	-	3
	PC8. collect the correct spare parts and appropriate grade of lubricants, coolant, oils and grease for routine maintenance and service	2	4	-	-

	PC9. inspect the components requiring replacement due to continuous wear and tear such as filters, belts, wiper blades, brake linings and pads	2	5	-	2
	PC10. clean and condition dismantled components, including mechanical and electrical aggregates, prior to assembly	2	4	-	2
	PC11. dispose off materials such as waste oil, scrap of failed parts/aggregates, as per organisation's policies	2	4	-	2
	PC12. take precautions to avoid damage to the vehicle and its components while working on other aggregates	3	4	-	2
	PC13. complete the tasks assigned before releasing vehicle for the next procedure and record all repairs carried out	2	4	-	2
	<i>Perform post service/repair routine</i>	6	5	-	3
	PC14. carry out scheduled checks, calibration and timely repairs for workshop tools, equipment and workstations	-	5	-	3
	PC15. return leftover consumable/parts, tools/equipment, and report if any malfunctions are observed to the person concerned	3	-	-	-
	PC16. check the performance of vehicle/aggregate post repair and report to supervisor/service advisor if further inspection is required by other specialist	3	-	-	-
	<b>Total Marks</b>	<b>30</b>	<b>50</b>	<b>-</b>	<b>20</b>
<b>DGT/VSQ/N0102 - Employability Skills (60 hours)</b>	<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 &amp; 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>	<b>2</b>	<b>2</b>	-	-
	<b>PC12.</b> follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
	<b>PC13.</b> work collaboratively with others in a team	-	-	-	-
	<i>Diversity &amp; Inclusion</i>	<b>1</b>	<b>2</b>	-	-
	<b>PC14.</b> communicate and behave appropriately with all genders and PwD	-	-	-	-
	<b>PC15.</b> escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
	<i>Financial and Legal Literacy</i>	<b>2</b>	<b>3</b>	-	-
	<b>PC16.</b> select financial institutions, products and services as per requirement	-	-	-	-
	<b>PC17.</b> carry out offline and online financial transactions, safely and securely	-	-	-	-
	<b>PC18.</b> identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
	<b>PC19.</b> identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
	<i>Essential Digital Skills</i>	<b>3</b>	<b>4</b>	-	-
	<b>PC20.</b> operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
	<b>PC21.</b> use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
	<b>PC22.</b> use basic features of word processor, spreadsheets, and presentations	-	-	-	-
	<i>Entrepreneurship</i>	<b>2</b>	<b>3</b>	-	-
	<b>PC23.</b> identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
	<b>PC24.</b> develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
	<b>PC25.</b> identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
	<i>Customer Service</i>	<b>1</b>	<b>2</b>	-	-
	<b>PC26.</b> identify different types of customers	-	-	-	-
	<b>PC27.</b> identify and respond to customer requests and needs in a professional manner.	-	-	-	-
	<b>PC28.</b> follow appropriate hygiene and grooming standards	-	-	-	-
	<i>Getting ready for apprenticeship &amp; Jobs</i>	<b>2</b>	<b>3</b>	-	-
	<b>PC29.</b> create a professional Curriculum vitae (Résumé)	-	-	-	-
	<b>PC30.</b> search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
	<b>PC31.</b> apply to identified job openings using offline /online methods as per requirement	-	-	-	-
	<b>PC32.</b> answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-

	<b>PC33.</b> identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
	<b>Total Marks</b>	<b>20</b>	<b>30</b>	<b>-</b>	<b>-</b>
<b>Grand Total</b>		<b>130</b>	<b>160</b>		<b>60</b>

### 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

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

## Glossary

Term	Description
<b>National Occupational Standards (NOS)</b>	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.
<b>Qualification</b>	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
<b>Qualification File</b>	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.
<b>Sector</b>	A grouping of professional activities on the basis of their main economic function, product, service or technology.
<b>Long Term Training</b>	Long-term skilling means any vocational training program undertaken for a year and above. <a href="https://ncvet.gov.in/sites/default/files/NCVET.pdf">https://ncvet.gov.in/sites/default/files/NCVET.pdf</a>