

CORRIGENDUM

This is in reference to **Tender Ref. No. NSIC/LBI/NAINI/2020-21/MD** dated **02.12.2020** for Supply, Installation & Commissioning of **Machine, Tools and Equipment for Ncvf Mechanic Diesel Trade.**

It is hereby informed that there is an **amendment** in Annexure-A and Annexure-C of the Tender documents as listed below. Bidders may accordingly take note and bid for the same.

ANNEXURE-A

Details of requirements and technical specifications of Machine, Tools & Equipment

LIST OF TOOLS AND EQUIPMENT			
NCVT MECHANIC DIESEL TRADE			
S.N O.	<i>NAME of the Tool & Equipment</i>	<i>Specification</i>	<i>Qty</i>
1	Allen Key set of 12 pieces	2mm to 14 mm (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75
2	Calliper inside with spring	15 cm (SAGAR GIFT HARICON/any other equivalent reputed brand)	75
3	Calliper outside with spring	15 cm (SAGAR GIFT HARICON/any other equivalent reputed brand)	75
4	Centers Punch	10mm.Dia.x.(SAGAR GIFT HARICON/any other equivalent reputed brand) 100mm	75
5	Dividers With Spring	15cm (SAGAR GIFT HARICON/any other equivalent reputed brand)	75
6	Electrician Screw Driver	250mm (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75
7	Hammer ball peen with handle	0.5kg. (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75
8	Hand File for Second cut Flat	20 cm (JK, HARICON, GIFT/any other equivalent reputed brand)	75
9	Screws Driver set 5 pieces	100mm to300mm (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75

10	Plipers Combination	20 cm.(AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75
11	Screw driver Blade	20cm X 9mm (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75
12	Screw driver Blade	30cm X 9mm (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75
13	Scriber	15 cm (SAGAR GIFT HARICON/any other equivalent reputed brand)	75
14	Spanner D.E. set of 12 pieces	6mm to 32mm (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75
15	Spanner,right set of 12	6 to 32mm. (metric)(AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75
16	Spanner socket with speed handle, T-bar,ratchet and universal set of 28 pieces with box	up to 32mm (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75
17	Steel tool box with lock and key	400X20X150mm (VENUS/any other equivalent reputed brand)folding type)	75
18	Steel rule	30 cm inch and metric (Reputed make)	20
19	Wire cutter and stripper	100MM (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75
TOOL & EQUIPMENT			
20	Adjustable Spanner	350mm (pipe wrench)(AMBIKA PAY , VENUS,TAPRIA/any other equivalent reputed brand)	4
21	Air Blow gun with Standard accessories	Reputed make (Reputed brand make)	2
22	Ammeter DC with external Shunt	300A/.60A	8
23	Air ratchet with standard accessories	Reputed brand make	8
24	Air impact wrench with standard accessories	Reputed brand make	8
25	Angle plates adjustable	250X150X175 mm	2
26	Angle plate size	200X100X200 mm	4
27	Anvil with Stand	50kgs.	2
28	Auto Electrical test bench	(GN) (Reputed brand make)	2
29	Battery-charger	(C&C NATIONAL/any other equivalent reputed	4

		brand)	
30	Blow Lamp	1Liter (PRABHAT/any other equivalent reputed brand)	4
31	Belt Tensioner gauge	standard item from reputed brand	2
32	Caliper inside with Spring	15cm (SAGAR GIFT HARICON/any other equivalent reputed brand)	8
33	Calipers outside with spring	15cm (SAGAR GIFT HARICON/any other equivalent reputed brand)	8
34	Car jet washer with standard accessories	(EVEREST/any other equivalent reputed brand)	2
35	Chain Pulley Block Capacity with tripod stand	3 ton	2
36	Chisel flat	10 cm (NATRAJ / FREEMAN/ DINEERS/any other equivalent reputed brand)	8
37	Chisels cross cut	200mm X 6mm(NATRAJ/ SUDDER/DENEERS/any other equivalent reputed brand)	8
38	Circlip pliers Expanding and Contracting	15cm and 20cm (AMBIKA/ VENUS/DENEERS/any other equivalent reputed brand)	8
39	Clamps C	100mm (BST & GIFT/any other equivalent reputed brand)	4
40	Clamps C	150mm(BST & GIF/any other equivalent reputed brandT)	4
41	Clamps C	200mm (BST & GIFT/any other equivalent reputed brand)	4
42	Cleaning tray	45X30 cm(BST & GIFT/any other equivalent reputed brand)	8
43	Compression testing gauge suitable	for diesel Engine with standard accessorice	4
44	Connecting rod alignment fixture	standard item from reputed brand	2
45	Copper bit soldering iron	0.25kg	8
46	Cylinder bore gauge capacity	20to 160mm MITUTOYO /any other equivalent reputed brand	8
47	Cylinder liner-Dry & wet liner, Press fit & slidefit liner	standard item from reputed brand	2

48	DC Ohmmeter	0 to 300 Ohms(C& C , POWERWAY / DENCO/any other equivalent reputed brand)	4
49	Depth micrometer	0-250mm (MITUTOYO JAPAN/any other equivalent reputed brand)	8
50	Dial gauge type 1 Gr.A	(complete with clamping devices and with magnetic stand) (MITUTOYO JAPAN/any other equivalent reputed brand)	8
51	Different type of Engine Bearing model	standard item from reputed brand	2
52	Different type of Piston model	standard item from reputed brand	2
53	Dividers With Spring	15cm (SAGAR GIFT HARICON/any other equivalent reputed brand)	8
54	Drift Punch Copper	15cm	8
55	Drill point angle gauge	standard item from reputed brand	2
56	Drill twist	1.5mm to 15mm by 0.5mm (various Size) (MIRANDA, IT/any other equivalent reputed brand)	8
57	Electric Soldering Iron	230v 60 watts 230 V 25 watts (TONI/any other equivalent reputed brand)	4
58	Electric testing screw driver	(AMBIKA, PYE, VENUS/any other equivalent reputed brand)	8
59	Engineer's scope	Blade size 15cm, (try square)(HARICON , GIFT, SAGAR/any other equivalent reputed brand)	8
60	Engineer's stethoscope	standard item from reputed brand	2
61	Feeler gauge 20 blades	(metric) (OMEGA, CRYSTAL/any other equivalent reputed brand)	8
62	File Flate, bastard	20cm (JK /any other equivalent reputed brand)	8
63	File half round, Second cut	20cm (JK /any other equivalent reputed brand)	8
64	File Square Second Cut	20cm (JK/any other equivalent reputed brand)	8
65	File, Square round	30 cm (JK/any other equivalent reputed brand)	8
66	File triangular, Second cut	15cm (JK /any other equivalent reputed brand)	8
67	Files assorted size and types including safe edge file (20No's) (ISO, STD)	(JK/any other equivalent reputed brand)	4
68	Flat File, Second Cut	25 cm (JK/any other equivalent reputed brand)	8
69	Flat File, bastard	35cm (JK/any other equivalent reputed brand)	8

70	Fuel feed pump for Diesel	standard item from reputed brand	2
71	Fuel Injection pump	(Diesel) inline	2
72	Fuel Injection pump dismatling tool kit /Universal Vice	standard item from reputed brand	2
73	Fuel injection pump VE pump / Distributer fuel rotary pump (DPC)pumps /along with special tools and accessorial	standard item from reputed brand	2
74	Gloves for Welding	(Leather and Asbestos)	10
75	Glow plug tester	standard item from reputed brand	4
76	Granite surface plate with stand and cover	1600 X 1000 mm(GRANITE/any other equivalent reputed brand)	2
77	Grease Gun	(AMBIKA / AMBITEC/DENEERS/any other equivalent reputed brand)	4
78	Grease Gun heavy duty trolley type	10 kg Capacity (AMBIKA / AMBITEC/DENEERS/any other equivalent reputed brand)	2
79	Growler	(C& C ,POWERWAY/any other equivalent reputed brand)	4
80	Hacksaw frame	adjustable 20-30cm(JOLLY &LOVLY/any other equivalent reputed brand)	20
81	Hammer Ball Peen	0.75Kg(AMBITEC /AMBICA /PYE/ VENUS/any other equivalent reputed brand)	8
82	Hammer Chipping	0.25Kg(AMBITEC /AMBICA /PYE/ VENUS/any other equivalent reputed brand)	10
83	Hammer Copper with handle	1 kg	8
84	Hammer Mallet	(WOODEN) standard item from reputed brand	8
85	Hammer Plastic	(WOODEN) standard item from reputed brand	8
86	HandOprated crimping tool	1-up to 4mm,2- up to 10mm (JAPSON/any other equivalent reputed brand)	4
87	Hand reamers adjustable	10.5 to 11.25 mm, 11.25 to 12.75 mm, 12.75mm and 14.25 to 15.75mm(GIFT , IT, MIRANDA/any other equivalent reputed brand)	4
88	Hand Sher Universal	250mm	4

89	Hand Vice	up to 37 mm(GIRT, HARICON/ DENEERS/any other equivalent reputed brand)	4
90	Hollow Punch set of 7 pieces	6mm to 15mm(JET/any other equivalent reputed brand)	4
91	Injector- Multi hole type, Pintle type (ISO, STD)	standard item from reputed brand	8
92	injector Cleaning unit	standard item from reputed brand	2
93	Injector Testing set	(Hand tester)	2
94	Insulated Screw driver	20 cm X 9mm blade(AMBICA/PYE / VENUS DENEERS/any other equivalent reputed brand)	8
95	Insulated Screw driver	30cm X 9mm blade (AMBICA/PYE / VENUS/DENEERS/any other equivalent reputed brand)	8
96	Left cut snips	250mm	8
97	Lifting jack screw	3 ton, 5ton & 20Ton.	2
98	Magneto spanner set with 8 spanners	standard item from reputed brand	2
99	Magnifying glass	75mm	4
100	Marking out table	90X60X90 cm.	2
101	Multimeter digital	(HTC/any other equivalent reputed brand)	10
102	Oil can	0.5/0.25liter capacity(PRIEMA/any other equivalent reputed brand)	8
103	Oil Pump for dismantling and assembling.)	550	4
104	Oil Stone	15 cm X 5 cm X 2.5 cm (GARRI/any other equivalent reputed brand)	2
105	Oscilloscope	20MHz (HTC, OWON)	4
106	Outside micrometer	0 to 25 mm(MITUTOYO JAPAN/any other equivalent reputed brand)	4
107	Outside micrometer	25 to 50mm(MITUTOYO JAPAN/any other equivalent reputed brand)	4
108	Outside micrometer	50 to 75mm(MITUTOYO JAPAN/any other equivalent reputed brand)	2
109	Outside micrometer	75 to 100mm(MITUTOYO JAPAN/any other equivalent reputed brand)	2
110	Philips Screw Driver set of 5 pieces	100 mm to 300 mm (AMBICA/PYE / VENUS/DENEERS/any other equivalent reputed brand)	4
111	Pipe Cutting tool	standard item from reputed brand	4
112	Pipe flaring tool	standard item from reputed brand	4
113	Piston ring	standard item from reputed brand	4

	Compressor.		
114	Piston Ring expander and remover	standard item from reputed brand	4
115	Piston Rings groove Cleaner.	standard item from reputed brand	2
116	Pliers combination	20cm(AMBICA/PYE / VENUS/DENEERS/any other equivalent reputed brand)	4
117	Pliers flat nose	15 cm(AMBICA/PYE / VENUS/DENEERS /any other equivalent reputed brand)	4
118	Pliers round nose	15 cm (AMBICA/PYE / VENUS/DENEERS/any other equivalent reputed brand)	4
119	Pliers side cutting	15 cm(AMBICA/PYE / VENUS/DENEERS/any other equivalent reputed brand)	4
120	Portable electric drill Machine	0-10mm(BOSCH/any other equivalent reputed brand)	2
121	Prick Punch	15 cm	8
122	Punch Letter 4mm	(Number) (JET/any other equivalent reputed brand)	4
123	Radiator cut section-cross flow	standard item from reputed brand	2
124	Radiator cut section downen flow	standard item from reputed brand	2
125	Radiator pressure cap	standard item from reputed brand	4
126	Right cut ships	250mm	4
127	Rivet sets snap and Dolly Combined	3mm,4mm, 6mm,	4
128	Scraper flat	25 cm (GIRT, HARICON/ SAGAR/any other equivalent reputed brand)	4
129	Scraper half round	25 cm (GIFT, HARICON/ SAGAR/any other equivalent reputed brand)	4
130	Scraper Triangular	25 cm (GIRT, HARICON/ SAGAR/any other equivalent reputed brand)	4
131	Scriber	15 cm(GIRT, HARICON/ SAGAR/any other equivalent reputed brand)	4
132	Scriberwith scribing black universal	(GIRT, HARICON/ SAGAR/any other equivalent reputed brand)	4
133	Set Of Stock and dies metric	(HEW/ALPS/any other equivalent reputed brand)	4
134	Tinnman's Sheer	450 X 600mm	4
135	Sheet Metel Gauge	(OMEGA ,CRYSTAL/any other equivalent reputed brand)	4
136	Tinnman's Sheer	300mm	8
137	Soldring Copper	Hatchet type 500gms	4

138	Soild Parallels in pairs	(Different size) in Metric (GIRT, HARICON/ SAGAR/any other equivalent reputed brand)	4
139	Spanner Clyburn	15 cm	2
140	Spanner D.E. set of 12pieces	6mm to 32mm(AMBICA/ PYE/VENUS/DENEERS/any other equivalent reputed brand)	8
141	Spanner T.flocks for screwing up and up-screwing inaccessible	(AMBICA/ PYE/VENUS/DENEERS/any other equivalent reputed brand)	4
142	Spanner,adjustable	15 cm (AMBICA/ PYE/VENUS/DENEERS/any other equivalent reputed brand)	4
143	Spanner rings set of 12 metric size	6 to 32mm. (AMBICA/ PYE/VENUS/ DENEERS/any other equivalent reputed brand)	8
144	Spanners socket with speed handle,T-bar, ratchet and universal (AMBICA/ PYE/VENUS/DENEER S)	standard item from reputed brand	4
145	Sprk Lighter	standard item from reputed brand	4
146	Sprk plug spanner	65, 14mm X 18mm X size	4
147	Starter moter axial type,	pre-engagement type & Co-axial type	2
148	Steel Measuring tape in a case	10 meter, (FREEMAN/any other equivalent reputed brand)	8
149	Steel rul 15 cm inch and metric	(CRYSTAL/OMEGA/any other equivalent reputed brand)	8
150	Steel rul 30 cm inch and metric	(CRYSTAL/OMEGA/any other equivalent reputed brand)	8
151	Straight edge gauge 2 ft.	(HARICON/ GIFT/ SAGAR/any other equivalent reputed brand)	4
152	Straight edge gauge 4 ft.	(HARICON/ GIFT/ SAGAR/any other equivalent reputed brand)	4
153	Stud extractor set of 3	(HARICON/ GIFT/ SAGAR/any other equivalent reputed brand)	4
154	Stud remover with socket handle	(HARICON/ GIFT/ SAGAR/any other equivalent reputed brand)	2
155	Surface gauge with dial test indicator	0.01 mm (MITUTOYO JAPAN/any other equivalent reputed brand)	8

	punger type		
156	Tachometer	(Counting type)	2
157	Tandem master cylinder with booster	standard item from reputed brand	8
158	Taps and Dies Complet sets	(5 type) (ALPS/HEW/any other equivalent reputed brand)	2
159	Taps and wrenches-metric	(BHARAT/ HARICON/GIFT/any other equivalent reputed brand)	4
160	Telescope gauge	standard item from reputed brand	8
161	Temperature gauge with sensor	0-100 C	4
162	Thermostat	standard item from reputed brand	4
163	Thread Pitch gauge Metric	(OMEGA / CRSTAL)	4
164	Timing lighter	standard item from reputed brand	4
165	Torque wrenches	5-35 Nm,,12-68Nm & 50-225 Nm	2
166	Trammel	30 cm	4
167	Turbocharger cutt sectional view	standard item from reputed brand	2
168	Tyre pressuregauge with holding nipple	standard item from reputed brand	4
169	Universal puller for removing pulleys, bearings	standard item from reputed brand	2
170	V' block 75 X 38 mm pair with Clamps	(HARICON /GIFT/SAGAR/any other equivalent reputed brand)	4
171	Vacuum gauge	0 to 760 mm of Hg.	4
172	Valve Lifter	standard item from reputed brand	2
173	Valve spring compressor universal	standard item from reputed brand	2
174	Vernier calliper	0-300mm withleast count 0.02mm (MITUTOYO JAPAN/any other equivalent reputed brand)	8
175	Vice grip pliers	(AMBICA/AMBITEK/PYE/VENUS/any other equivalent reputed brand)	4
176	Water pump for dismantling and assembling	Tractor & Moter Vehicle	8
177	Wire gauge	100 MM (metric) (OMEGA/ CRSTAL/any other equivalent reputed brand)	4

178	Work bench 2	(MANGO WOOD)250X120X60cm with 4 vices 12 cm jaw	8
GENERAL SHOP OUTFIT			
180	Air conditioned CRDi Vehicle in Running Condition - LMV	4 Stock New Vehicle With RTO Registration Petrol Vehicle should be brand new and should be registered at R.T.O office Prayagraj in the name of "NSIC-LBI NAINI PRAYAGRAJ"	1
181	Arbor press hand operated 2 ton capacity	2 ton capacity	1
182	Automotive exhaust 5 gas analyser	(petrol& Diesel) or Diesel Smokemeter	1
183	Bench lever shears	250mm Blade X 3mm	1
184	Diesel engne CRDi 4 Stroke (New)	<ul style="list-style-type: none"> • Diesel Engine CRDI 4 Stroke for Dismantling & Assembling with Swiveling Stand • Brand New Diesel Engine CRDI 4 Cylinder, Turbocharged, Aluminum engine head and cast iron block. (Proof of New Engine to be provided - Invoice of Engine Manufacturer or Engine Manufacturer's Authorized Dealer))0 Bore: 70 - 90 mm <ul style="list-style-type: none"> • Stroke: 80 - 110 mm • Displacement: 1100 - 1500 cc • Minimum power: 85 BHP@ 3750 — 4250 RPM <ul style="list-style-type: none"> • Compression Ratio 16 — 22:1 • 4 Valve per cylinder, DOHC, Ignition & fuel system Common rail direct injection. <ul style="list-style-type: none"> • Cooling System: Water Cooling • Complete Panel Board Control with all Brand New Original Equipment Parts (proof to be provided- invoice o manufacturer or manufacturer's authorized dealer) like Turbocharger, Catalytic Converter, ECM, BCM, Ignition Switch with Keys, Wiring Harnesses, Instrument Cluster, OBD II Compliant Diagnostic Socket, Electronic Accelerator Pedal Alternator, Starter Motor, Radiator with Intercooler and Cooling Fan, Air Filter Assy., A Mounting, Fuse Box, Glow Plug Timer, Fuel Filter, Engine Sensors like Air Mass Flow, EGR, Lambda/Oxygen Sensor, Fuel Pressure Regulator Rail Pressure Sensor, Crank Angle/RPM/TDC Sensor, Coolant Temperature Sensor, Cam Angle Sensor, Boost 	1

		<p>Pressure Sensor, Fuel Temperature & Water in Fuel Filter Sensor, Engine Oil Pressure Switch.</p> <ul style="list-style-type: none"> • Instrument Cluster should display Fuel level, Battery Charging Light, Oil Pressure Light, Engine RPM, and Engine Coolant Temperature. • Fuel Tank 10 Liter, Engine Accessories- Silencer, and New 60AH Battery with clamp, Safety Guard for Silencer & Radiator. • Engine will be in running condition with speed controlled from the accelerator pedal. • Appropriate Engine Scanner to be provided. • Complete tool kit required should be supplied. <ul style="list-style-type: none"> • Engine should be mounted on MS Rectangle/Square Pipe Frame Rotating 360 Degrees with Brake / Stopper available on all four wheels. • The M.S. Stand should be spray colored and/or powder coated. <ul style="list-style-type: none"> • Detailed Manual with Wiring Diagram on Working Principle, Dismantling and Assembling Procedure should be provided. <p>Note: Proof of New Engine Certificate and Guarantee Certificate from engine Manufacturer should be provided.</p>	
185	Diesel engine Stationary type	8-10 HP latest technology	1
186	Discrete Component Trainer / Basic Electronics Trainer	(C& C, POWERWAY/any other equivalent reputed brand)	1
187	Drilling machine	bench to drill up to 12 mm dia along with accessories (EVEREST/any other equivalent reputed brand)	1
188	Dual Magnetization Yoke	AC/HWDC, 230VaC, 50Hz,	1
189	Gas Welding Table	1220mm*760mm	2
190	Grinding machine	(general purpose) D.E. pedestal with 300mm dia. Wheels rough and smooth(EVERST/any other equivalent reputed brand)	1

191	Heavy Commerical Vehicle type	(white out body on frame) truck with latest technology. It should be brand new fitted with latest BSVI engine with EATS (exhaust after treatment system) BSVI Engine. The vehicle chassis should be registered at R.T.O Prayagraj in the name of "NSIC-LBI NAINI PRAYAGRAJ"	1
192	Hydraulic jack Hi-Lift type	3 ton capacity, and 5 Ton capacity	1
193	Liquid penetrate Inspection kit	standard item from reputed brand	1
194	Multi Scan Tool with oscilloscope	LAUNCH/ EQUIVALENT Make from reputed brand. Multi Scan Tool with oscilloscope able to scan Engine, ABS & EBD, AT, SRS, SAS, Body Control and immobilizer from all Bharat Stage Vehicles from the year 2004 to till date. ANDROID BASED operating system with Wireless data transmission from car to scanner. Most advance scanner with function of automotive sensor simulation test specially designed to diagnose and simulate vehicle sensor faults for sensors like MAP sensor, Intake air temperature sensor, TP sensor etc. Can also do "DC voltage simulation", "Fixed frequency simulation", "Predefined waveform simulation" and "Hand-painted waveform simulation showing result in scanner itself. Hardware Specifications Operating System: Android 5.1 Display 10.1" IPS display CPU:1.3 Ghz quad core Ram: 1GB Battery: 7000 mAh Camera: Front 2Mp Rear 5Mp.	1
195	Pipe Bending Machine	12 mm to 30mm(Hydraulic type)	1
196	Pneumatic rivet gun with standard accessorice	standard item from reputed brand	2
197	Spring tension tester	standard item from reputed brand	1

198	Tin Smiths bench folder	standard item from reputed brand	1
199	Trolley type portable air	Compressor Single cylinder with 45 liters capacity Air trunk, Along with Accessories & with working pressure 6.5kg/sq. cm, (EVEREST)	1
200	Welding plant Oxy-Acetylene complete	(high Pressure) Both oxygen and acetylene cylinder should brand new with test Certificate from explosive deptt. Nagpur.	1
201	Welding Transformer	15-300Amps	1
202	Working Condition of Diesel Engine	<p>CRDi-4 stroke Engine, Assembly with fault simulation board</p> <p>WORKING CONDITION OF DIESEL ENGINE CRDI - 4 STROKE ENGINE ASSEMBLY WITH FAULT SIMULATION BOARD</p> <ul style="list-style-type: none"> • Brand New Diesel Engine CRDI 4 Cylinder, Turbocharged, Aluminum engine head and cast iron block. (Proof of New Engine to be provided - Invoice of Engine Manufacturer or Engine Manufacturer's Authorized Dealer) • Real and operating CRDI Diesel engine, illustrating the structure and working process. <ul style="list-style-type: none"> • Bore: 70 - 90 mm • Stroke: 80 - 110 mm • Displacement: 1100 - 1500 cc • Minimum power: 85 BHP • 4 Valve per cylinder, DOHC, Ignition & fuel system Common rail direct injection. <ul style="list-style-type: none"> • Cooling System: Water Cooling • Complete Panel Board Control with all Brand New Original Equipment Parts (proof to be provided- invoice of manufacturer or manufacturer's authorized dealer) like Turbocharger, Catalytic Converter, ECM, BCM, Ignition Switch with Keys, Wiring Harnesses, Instrument Cluster, OBD II Compliant Diagnostic Socket, Electronic Accelerator Pedal, Alternator, Starter Motor, Radiator with Intercooler and cooling Fan, Air Filter Assy., A Mounting, Fuse Box, Glow Plug Timer, Fuel Filter, Engine Sensors like Air Mass Flow, EGR, Lambda/Oxygen Sensor, Fuel Pressure Regulator, Rail Pressure Sensor, Crank Angle/RPM/TDC Sensor, Coolant Temperature Sensor, Cam Angle Sensor, Boost Pressure Sensor, Fuel Temperature & Water in 	1

- Fuel Filter Sensor, Engine Oil Pressure Switch. Instrument Cluster should display Battery Charging Light, Oil Pressure Light, and Engine RPM, Fuel level, Glow Plugs, Engine Coolant temperature and other indications.
- Fuel Tank 10 Liter, Engine Accessories - Silencer, New 60AH Battery with Clamp. Wire Mesh/Perforated Sheet Safety Guards for Silencer & Radiator. Plywood/FRP Cover for Panel Board rear side wiring.
 - Engine should be in running condition with speed controlled from the accelerator pedal.
 - Appropriate Engine Scanner should be provided.
 - Test points should be provided on the printed base so that different voltages/current, resistance values etc. can tested/understood using a multi - meter.
 - Fault setting switch bank should be provided to induce faults in the training module.
 - The training module should be fitted with diagnostic socket (DLC) for automobile decoder (Scan tool) to read fault codes, clear fault codes and read live data stream.
 - Scanner provided with the set up should able to read, diagnose and erase the below induced faults from the ECM memory o. the module.
 - Fault setting switch bank to induce faults for at least the following and the faults should be read/visible in the Scanner of Instrument Cluster:
 - Air Flow Meter Sensor
 - EGR
 - Oxygen/Lambda Sensor
 - Crank Angle/RPM/TDC Sensor
 - Coolant Temperature Sensor
 - Fuel Pressure Regulator
 - Accelerator Pedal Potentiometer/Throttle Control
 - Glow Plug Pre Heating Control Unit
 - Ignition Key
 - Boost Pressure Sensor
 - Fuel Injectors
 - Cam Angle /Timing
 - Engine Oil Pressure
 - Fuel Level
 - Rail Fuel Pressure Sensor
 - CRDI Engine working principle video DVD should be supplied.
 - Detailed Manual with Wiring Diagram of the engine to be supplied.

		<ul style="list-style-type: none"> • Detailed description of different types of generic DTC's to be provided. • The training module should be fabricated using steel pipe frame with spray painted for good looks and the entire setup is provided on caster wheels with brakes for easy movement of the same. <p>Note: Proof of New Engine Certificate and Guarantee Certificate from Engine-Manufacturer should be provided.</p>	
203	Cut section of Diesel of 4/6 cylinder diesel Engine	with moving condition to show momentum of internal parts	1
204	Fuel injection testbench for calibration of fuel pump	standard item from reputed brand	1
205	Electrical test bench	standard item from reputed brand	1
206	Diesel Engine	<p>six Cylinder in running condition</p> <p>The engine should be brand new 4 strokes, 6 cylinder BSIV engine with all accessories Radiator, fan, water, cooling system, Diesel tank and complete electrical wiring in perfect running condition mounted on M.S channel with Battery</p>	1
207	Battery-SMF	standard item from reputed brand	1

208	Brake Fluids	standard item from reputed brand	5
209	Chalk, Prussian blue	standard item from reputed brand	2
210	Chemical Compound for fasteners	standard item from reputed brand	2
211	Diesel	standard item from reputed brand	150
212	Different type gasket material	standard item from reputed brand	5
213	Different type of oil sel	standard item from reputed brand	1
214	Drill Twist	(assorted)	1
215	Emery paper	36-60 grit, 80-120	1
216	Engine Oil & Engne Coolant	standard item from reputed brand	5
217	Gear oils	standard item from reputed brand	5
218	Gloves for Welding	(Leather and Asbestos)	10
219	Hacksaw blade	(Consumable)	1
220	Hand rubber gloves	tested for 5000v	10
221	Holder, Lamp Teakwoos Boards plug sockers	standard item from reputed brand	1
222	Hydromettarr	standard item from reputed brand	16
223	Lapping abrasives	standard item from reputed brand	1
224	Leather Apron	standard item from reputed brand	10
225	Petrol	standard item from reputed brand	150
226	Power streeing Oil	standard item from reputed brand	5
227	Radiator Coolants	standard item from reputed brand	5
228	Safety Glasses	standard item from reputed brand	20
229	Steel Wire	50mm X 150mm	10

CLASS ROOM FURNITURE FOR TRADE THEORY

230	Instructor's table and Chair	<p align="center">Table :</p> <p align="center">wooden finish</p> <p align="center">The size of main table shall be 5' X 2.5'</p> <p align="center">3 drawers in right side</p> <p align="center">color: black</p> <p align="center">Chair:</p> <p align="center">Officers Chair , full back , with side arm</p> <p align="center">The chair should have a permanent contact mechanism with 360 degree of revolution.</p> <p align="center">The pedestal should have pneumatic height adjustment</p> <p align="center">iron based with metal wheel</p> <p align="center">color : black</p>	2 Set
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231	Student's chairs with writing pads	wooden with mica top , in mimimum 1.5 mm section pip, whole body made of steel	25
232	White board size 1200mm X 900mm	with Aluminium Beading , size 6 X 4 feet	1 No.
233	LCD projector with screen	(BENQ) HD 1280x800 3600 Lumen Brightness Upto 15,000 Lamp Life HDMI VGA in-Built Speaker 20,000:1 contrast ratio	1 No.
234	Lockers with drawers	10 lockers & separate locking Arrangements for traniness the body should be 20 gauge thickas	10

The above list of standard accessories are tentative and the bidder shall have authority to supply additional accessories as they deemed fit for the successful operation of the machines, Tools and Equipments after the supply at site as per NCVT "MECHANIC DIESEL" Trade Tool List Guidelines.



ANNEXURE-C

FORMAT & REQUIREMENTS FOR SUBMITTING TECHNICAL BID

1. **Tender Ref. No:**
2. **Name of Bidder:**
3. **Complete office address/contact numbers/Email ID/Mobile Number of Bidder:**
4. **Tender fee payment details** (*if tender document downloaded from website*)
Details of DD/RTGS/NEFT by which tender fee paid.....
5. **Confirmation of acceptance of Technical Specifications for the supply of machine:**

LIST OF TOOLS AND EQUIPMENT					
NCVT MECHANIC DIESEL TRADE					
S.N O.	NAME of the Tool & Equipment	Specification	Qty	Acceptance to the Specification as placed at Annexure-A and agreed to supply with required Quantity (write YES/ NO only)	If marked "NO" in the column before, specify the deviation in specification of the machine offered for the supply.
1	Allen Key set of 12 pieces	2mm to 14 mm (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75		
2	Calliper inside with spring	15 cm (SAGAR GIFT HARICON/any other equivalent reputed brand)	75		
3	Calliper outside with spring	15 cm (SAGAR GIFT HARICON/any other equivalent reputed brand)	75		
4	Centers Punch	10mm.Dia.x.(SAGAR GIFT HARICON/any other equivalent reputed brand) 100mm	75		
5	Dividers With Spring	15cm (SAGAR GIFT HARICON/any other equivalent reputed brand)	75		

6	Electrician Screw Driver	250mm (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75		
7	Hammer ball peen with handle	0.5kg. (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75		
8	Hand File for Second cut Flat	20 cm (JK, HARICON, GIFT/any other equivalent reputed brand)	75		
9	Screws Driver set 5 pieces	100mm to300mm (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75		
10	Plipers Combination	20 cm.(AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75		
11	Screw driver Blade	20cm X 9mm (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75		
12	Screw driver Blade	30cm X 9mm (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75		
13	Scriber	15 cm (SAGAR GIFT HARICON/any other equivalent reputed brand)	75		
14	Spanner D.E. set of 12 pieces	6mm to 32mm (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75		
15	Spanner,right set of 12	6 to 32mm. (metric)(AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75		
16	Spanner socket with speed handle, T-bar,ratchet and universal set of 28 pieces with box	up to 32mm (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75		
17	Steel tool box with lock and key	400X20X150mm (VENUS/any other equivalent reputed brand)folding type)	75		
18	Steel rule	30 cm inch and metric (Reputed make)	20		
19	Wire cutter and stripper	100MM (AMBIKA PAY ,VENUS,TAPRIA/any other equivalent reputed brand)	75		

TOOL & EQUIPMENT					
20	Adjustable Spanner	350mm (pipe wrench)(AMBIKA PAY , VENUS,TAPRIA/any other equivalent reputed brand)	4		
21	Air Blow gun with Standard accessories	Reputed make (Reputed brand make)	2		
22	Ammeter DC with external Shunt	300A/.60A	8		
23	Air ratchet with standard accessories	Reputed brand make	8		
24	Air impact wrench with standard accessories	Reputed brand make	8		
25	Angle plates adjustable	250X150X175 mm	2		
26	Angle plate size	200X100X200 mm	4		
27	Anvil with Stand	50kgs.	2		
28	Auto Electrical test bench	(GN) (Reputed brand make)	2		
29	Battery-charger	(C&C NATIONAL/any other equivalent reputed brand)	4		
30	Blow Lamp	1Liter (PRABHAT/any other equivalent reputed brand)	4		
31	Belt Tensioner gauge	standard item from reputed brand	2		
32	Caliper inside with Spring	15cm (SAGAR GIFT HARICON/any other equivalent reputed brand)	8		
33	Calipers outside with spring	15cm (SAGAR GIFT HARICON/any other equivalent reputed brand)	8		
34	Car jet washer with standard accessories	(EVEREST/any other equivalent reputed brand)	2		
35	Chain Pulley Block Capacity with tripod stand	3 ton	2		
36	Chisel flat	10 cm (NATRAJ / FREEMAN/ DINEERS/any other equivalent reputed brand)	8		
37	Chisels cross cut	200mm X 6mm(NATRAJ/ SUDDER/DENEERS/any other	8		

		equivalent reputed brand)			
38	Circlip pliers Expanding and Contracting	15cm and 20cm (AMBIKA/ VENUS/DENEERS/any other equivalent reputed brand)	8		
39	Clamps C	100mm (BST & GIFT/any other equivalent reputed brand)	4		
40	Clamps C	150mm(BST & GIF/any other equivalent reputed brandT)	4		
41	Clamps C	200mm (BST & GIFT/any other equivalent reputed brand)	4		
42	Cleaning tray	45X30 cm(BST & GIFT/any other equivalent reputed brand)	8		
43	Compression testing gauge suitable	for diesel Engine with standard accessorice	4		
44	Connecting rod alignment fixture	standard item from reputed brand	2		
45	Copper bit soldering iron	0.25kg	8		
46	Cylinder bore gauge capacity	20to 160mm MITUTOYO /any other equivalent reputed brand	8		
47	Cylinder liner-Dry & wet liner, Press fit & slidefit liner	standard item from reputed brand	2		
48	DC Ohmmeter	0 to 300 Ohms(C& C , POWERWAY / DENCO/any other equivalent reputed brand)	4		
49	Depth micrometer	0-250mm (MITUTOYO JAPAN/any other equivalent reputed brand)	8		
50	Dial gauge type 1 Gr.A	(complete with clamping devices and with magnetic stand) (MITUTOYO JAPAN/any other equivalent reputed brand)	8		
51	Different type of Engine Bearing model	standard item from reputed brand	2		

52	Different type of Piston model	standard item from reputed brand	2		
53	Dividers With Spring	15cm (SAGAR GIFT HARICON/any other equivalent reputed brand)	8		
54	Drift Punch Copper	15cm	8		
55	Drill point angle gauge	standard item from reputed brand	2		
56	Drill twist	1.5mm to 15mm by 0.5mm(various Size) (MIRANDA, IT/any other equivalent reputed brand)	8		
57	Electric Soldering Iron	230v 60 watts 230 V 25 watts (TONI/any other equivalent reputed brand)	4		
58	Electric testing screw driver	(AMBIKA, PYE, VENUS/any other equivalent reputed brand)	8		
59	Engineer's scope	Blade size 15cm, (try square)(HARICON , GIFT, SAGAR/any other equivalent reputed brand)	8		
60	Engineer's stethoscope	standard item from reputed brand	2		
61	Feeler gauge 20 blades	(metric) (OMEGA, CRYSTAL/any other equivalent reputed brand)	8		
62	File Flate, bastard	20cm (JK /any other equivalent reputed brand)	8		
63	File half round, Second cut	20cm (JK /any other equivalent reputed brand)	8		
64	File Square Second Cut	20cm (JK/any other equivalent reputed brand)	8		
65	File, Square round	30 cm (JK/any other equivalent reputed brand)	8		
66	File triangular, Second cut	15cm (JK /any other equivalent reputed brand)	8		
67	Files assorted size and types including safe edge file (20No's) (ISO, STD)	(JK/any other equivalent reputed brand)	4		
68	Flat File, Second Cut	25 cm (JK/any other equivalent reputed brand)	8		
69	Flat File, bastard	35cm (JK/any other equivalent reputed brand)	8		

70	Fuel feed pump for Diesel	standard item from reputed brand	2		
71	Fuel Injection pump	(Diesel) inline	2		
72	Fuel Injection pump dismatling tool kit /Universal Vice	standard item from reputed brand	2		
73	Fuel injection pump VE pump / Distributer fuel rotary pump (DPC)pumps /along with special tools and accessorial	standard item from reputed brand	2		
74	Gloves for Welding	(Leather and Asbestos)	10		
75	Glow plug tester	standard item from reputed brand	4		
76	Granite surface plate with stand and cover	1600 X 1000 mm(GRANITE/any other equivalent reputed brand)	2		
77	Grease Gun	(AMBIKA / AMBITEC/DENEERS/any other equivalent reputed brand)	4		
78	Grease Gun heavy duty trolley type	10 kg Capacity (AMBIKA / AMBITEC/DENEERS/any other equivalent reputed brand)	2		
79	Growler	(C& C ,POWERWAY/any other equivalent reputed brand)	4		
80	Hacksaw frame	adjustable 20-30cm(JOLLY &LOVLY/any other equivalent reputed brand)	20		
81	Hammer Ball Peen	0.75Kg(AMBITEC /AMBICA /PYE/ VENUS/any other equivalent reputed brand)	8		
82	Hammer Chipping	0.25Kg(AMBITEC /AMBICA /PYE/ VENUS/any other equivalent reputed brand)	10		
83	Hammer Copper with handle	1 kg	8		
84	Hammer Mallet	(WOODEN) standard item from reputed brand	8		
85	Hammer Plastic	(WOODEN) standard item from reputed brand	8		

86	HandOperated crimping tool	1-up to 4mm,2- up to 10mm (JAPSON/any other equivalent reputed brand)	4		
87	Hand reamers adjustable	10.5 to 11.25 mm, 11.25 to 12.75 mm, 12.75mm and 14.25 to 15.75mm(GIFT , IT, MIRANDA/any other equivalent reputed brand)	4		
88	Hand Sher Universal	250mm	4		
89	Hand Vice	up to 37 mm(GIRT, HARICON/ DENEERS/any other equivalent reputed brand)	4		
90	Hollow Punch set of 7 pieces	6mm to 15mm(JET/any other equivalent reputed brand)	4		
91	Injector- Multi hole type, Pintle type (ISO, STD)	standard item from reputed brand	8		
92	injector Cleaning unit	standard item from reputed brand	2		
93	Injector Testing set	(Hand tester)	2		
94	Insulated Screw driver	20 cm X 9mm blade(AMBICA/PYE / VENUS DENEERS/any other equivalent reputed brand)	8		
95	Insulated Screw driver	30cm X 9mm blade (AMBICA/PYE / VENUS/DENEERS/any other equivalent reputed brand)	8		
96	Left cut snips	250mm	8		
97	Lifting jack screw	3 ton, 5ton & 20Ton.	2		
98	Magneto spanner set with 8 spanners	standard item from reputed brand	2		
99	Magnifying glass	75mm	4		
100	Marking out table	90X60X90 cm.	2		
101	Multimeter digital	(HTC/any other equivalent reputed brand)	10		
102	Oil can	0.5/0.25liter capacity(PRIEMA/any other equivalent reputed brand)	8		
103	Oil Pump for dismantling and assembling.)	550	4		
104	Oil Stone	15 cm X 5 cm X 2.5 cm (2		

		GARRI/any other equivalent reputed brand)			
105	Oscilloscope	20MHz (HTC, OWON)	4		
106	Outside micrometer	0 to 25 mm(MITUTOYO JAPAN/any other equivalent reputed brand)	4		
107	Outside micrometer	25 to 50mm(MITUTOYO JAPAN/any other equivalent reputed brand)	4		
108	Outside micrometer	50 to 75mm(MITUTOYO JAPAN/any other equivalent reputed brand)	2		
109	Outside micrometer	75 to 100mm(MITUTOYO JAPAN/any other equivalent reputed brand)	2		
110	Philips Screw Driver set of 5 pieces	100 mm to 300 mm (AMBICA/PYE / VENUS/DENEERS/any other equivalent reputed brand)	4		
111	Pipe Cutting tool	standard item from reputed brand	4		
112	Pipe flaring tool	standard item from reputed brand	4		
113	Piston ring Compressor.	standard item from reputed brand	4		
114	Piston Ring expander and remover	standard item from reputed brand	4		
115	Piston Rings groove Cleaner.	standard item from reputed brand	2		
116	Pliers combination	20cm(AMBICA/PYE / VENUS/DENEERS/any other equivalent reputed brand)	4		
117	Pliers flat nose	15 cm(AMBICA/PYE / VENUS/DENEERS /any other equivalent reputed brand)	4		
118	Pliers round nose	15 cm (AMBICA/PYE / VENUS/DENEERS/any other equivalent reputed brand)	4		
119	Pliers side cutting	15 cm(AMBICA/PYE / VENUS/DENEERS/any other equivalent reputed brand)	4		
120	Portable electric drill Machine	0-10mm(BOSCH/any other equivalent reputed brand)	2		
121	Prick Punch	15 cm	8		
122	Punch Letter 4mm	(Number) (JET/any other equivalent reputed brand)	4		

123	Radiator cut section-cross flow	standard item from reputed brand	2		
124	Radiator cut section down flow	standard item from reputed brand	2		
125	Radiator pressure cap	standard item from reputed brand	4		
126	Right cut ships	250mm	4		
127	Rivet sets snap and Dolly Combined	3mm,4mm, 6mm,	4		
128	Scraper flat	25 cm (GIRT, HARICON/ SAGAR/any other equivalent reputed brand)	4		
129	Scraper half round	25 cm (GIFT, HARICON/ SAGAR/any other equivalent reputed brand)	4		
130	Scraper Triangular	25 cm (GIRT, HARICON/ SAGAR/any other equivalent reputed brand)	4		
131	Scriber	15 cm(GIRT, HARICON/ SAGAR/any other equivalent reputed brand)	4		
132	Scriberwith scribing black universal	(GIRT, HARICON/ SAGAR/any other equivalent reputed brand)	4		
133	Set Of Stock and dies metric	(HEW/ALPS/any other equivalent reputed brand)	4		
134	Tinnman's Sheer	450 X 600mm	4		
135	Sheet Metel Gauge	(OMEGA ,CRYSTAL/any other equivalent reputed brand)	4		
136	Tinnman's Sheer	300mm	8		
137	Soldring Copper	Hatchet type 500gms	4		
138	Soild Parallels in pairs	(Different size) in Metric (GIRT, HARICON/ SAGAR/any other equivalent reputed brand)	4		
139	Spanner Clyburn	15 cm	2		
140	Spanner D.E. set of 12pieces	6mm to 32mm(AMBICA/ PYE/VENUS/DENEERS/any other equivalent reputed brand)	8		
141	Spanner T.flocks for screwing up and up-screwing inaccessible	(AMBICA/ PYE/VENUS/DENEERS/any other equivalent reputed brand)	4		

142	Spanner,adjustable	15 cm (AMBICA/ PYE/VENUS/DENEERS/any other equivalent reputed brand)	4		
143	Spanner rings set of 12 metric size	6 to 32mm. (AMBICA/ PYE/VENUS/ DENEERS/any other equivalent reputed brand)	8		
144	Spanners socket with speed handle,T-bar, ratchet and universal (AMBICA/ PYE/VENUS/DENEE RS)	standard item from reputed brand	4		
145	Sprk Lighter	standard item from reputed brand	4		
146	Sprk plug spanner	65, 14mm X 18mm X size	4		
147	Starter moter axial type,	pre-engagement type & Co-axial type	2		
148	Steel Measuring tape in a case	10 meter, (FREEMAN/any other equivalent reputed brand)	8		
149	Steel rul 15 cm inch and metric	(CRYSTAL/OMEGA/any other equivalent reputed brand)	8		
150	Steel rul 30 cm inch and metric	(CRYSTAL/OMEGA/any other equivalent reputed brand)	8		
151	Straight edge gauge 2 ft.	(HARICON/ GIFT/ SAGAR/any other equivalent reputed brand)	4		
152	Straight edge gauge 4 ft.	(HARICON/ GIFT/ SAGAR/any other equivalent reputed brand)	4		
153	Stud extractor set of 3	(HARICON/ GIFT/ SAGAR/any other equivalent reputed brand)	4		
154	Stud remover with socket handle	(HARICON/ GIFT/ SAGAR/any other equivalent reputed brand)	2		
155	Surface gauge with dial test indicator punger type	0.01 mm (MITUTOYO JAPAN/any other equivalent reputed brand)	8		
156	Tachometer	(Counting type)	2		

157	Tandem master cylinder with booster	standard item from reputed brand	8		
158	Taps and Dies Compleat sets	(5 type) (ALPS/HEW/any other equivalent reputed brand)	2		
159	Taps and wrenches- metric	(BHARAT/ HARICON/GIFT/any other equivalent reputed brand)	4		
160	Telescope gauge	standard item from reputed brand	8		
161	Temperature gauge with sensor	0-100 C	4		
162	Thermostat	standard item from reputed brand	4		
163	Thread Pitch gauge Metric	(OMEGA / CRSTAL)	4		
164	Timing lighter	standard item from reputed brand	4		
165	Torque wrenches	5-35 Nm,,12-68Nm & 50-225 Nm	2		
166	Trammel	30 cm	4		
167	Turbocharger cutt sectional view	standard item from reputed brand	2		
168	Tyre pressuregauge with holding nipple	standard item from reputed brand	4		
169	Universal puller for removing pulleys, bearings	standard item from reputed brand	2		
170	V' block 75 X 38 mm pair with Clamps	(HARICON /GIFT/SAGAR/any other equivalent reputed brand)	4		
171	Vacuum gauge	0 to 760 mm of Hg.	4		
172	Valve Lifter	standard item from reputed brand	2		
173	Valve spring compressor universal	standard item from reputed brand	2		
174	Vernier calliper	0-300mm withleast count 0.02mm (MITUTOYO JAPAN/any other equivalent reputed brand)	8		
175	Vice grip pliers	(AMBICA/AMBITEK/PYE/VENUS /any other equivalent reputed	4		

		brand)			
176	Water pump for dismantling and assembling	Tractor & Moter Vehicle	8		
177	Wire gauge	100 MM (metric) (OMEGA/CRSTAL/any other equivalent reputed brand)	4		
178	Work bench 2	(MANGO WOOD)250X120X60cm with 4 vices 12 cm jaw	8		
GENERAL SHOP OUTFIT					
180	Air conditioned CRDi Vehicle in Running Condition - LMV	4 Stock New Vehicle With RTO Registration Petrol Vehicle should be brand new and should be registered at R.T.O office Prayagraj in the name of "NSIC-LBI NAINI PRAYAGRAJ"	1		
181	Arbor press hand operated 2 ton capacity	2 ton capacity	1		
182	Automotive exhaust 5 gas analyser	(petrol& Diesel) or Diesel Smokemeter	1		
183	Bench lever shears	250mm Blade X 3mm	1		

184	Diesel engne CRDi 4 Stroke (New)	<ul style="list-style-type: none"> • Diesel Engine CRDI 4 Stroke for Dismantling & Assembling with Swiveling Stand • Brand New Diesel Engine CRDI 4 Cylinder, Turbocharged, Aluminum engine head and cast iron block. (Proof of New Engine to be provided - Invoice of Engine Manufacturer or Engine Manufacturer's Authorized Dealer))0 Bore: 70 - 90 mm <ul style="list-style-type: none"> • Stroke: 80 - 110 mm • Displacement: 1100 - 1500 cc • Minimum power: 85 BHP@ 3750 — 4250 RPM • Compression Ratio 16 — 22:1 • 4 Valve per cylinder, DOHC, Ignition & fuel system Common rail direct injection. <ul style="list-style-type: none"> • Cooling System: Water Cooling • Complete Panel Board Control with all Brand New Original Equipment Parts (proof to be provided- invoice o manufacturer or manufacturer's authorized dealer) like Turbocharger, Catalytic Converter, ECM, BCM, Ignition Switch with Keys, Wiring Harnesses, Instrument Cluster, OBD II Compliant Diagnostic Socket, Electronic Accelerator Pedal Alternator, Starter Motor, Radiator with Intercooler and Cooling Fan, Air Filter Assy., A Mounting, Fuse Box, Glow Plug Timer, Fuel Filter, Engine Sensors like Air Mass Flow, EGR, Lambda/Oxygen Sensor, Fuel Pressure Regulator Rail Pressure Sensor, Crank Angle/RPM/TDC Sensor, 	1		
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		<p>Coolant Temperature Sensor, Cam Angle Sensor, Boost Pressure Sensor, Fuel Temperature & Water in Fuel Filter Sensor, Engine Oil Pressure Switch.</p> <ul style="list-style-type: none"> • Instrument Cluster should display Fuel level, Battery Charging Light, Oil Pressure Light, Engine RPM, and Engine Coolant Temperature. • Fuel Tank 10 Liter, Engine Accessories- Silencer, and New 60AH Battery with clamp, Safety Guard for Silencer & Radiator. • Engine will be in running condition with speed controlled from the accelerator pedal. • Appropriate Engine Scanner to be provided. • Complete tool kit required should be supplied. • Engine should be mounted on MS Rectangle/Square Pipe Frame Rotating 360 Degrees with Brake / Stopper available on all four wheels. • The M.S. Stand should be spray colored and/or powder coated. • Detailed Manual with Wiring Diagram on Working Principle, Dismantling and Assembling Procedure should be provided. <p>Note: Proof of New Engine Certificate and Guarantee Certificate from engine Manufacturer should be provided.</p>			
185	Diesel engine Stationary type	8-10 HP latest technology	1		
186	Discrete Component Trainer /	(C& C, POWERWAY/any other equivalent reputed brand)	1		

	Basic Electronics Trainer				
187	Drilling machine	bench to drill up to 12 mm dia along with accessories (EVEREST/any other equivalent reputed brand)	1		
188	Dual Magnetization Yoke	AC/HWDC, 230VaC, 50Hz,	1		
189	Gas Welding Table	1220mm*760mm	2		
190	Grinding machine	(general purpose) D.E. pedestal with 300mm dia. Wheels rough and smooth(EVEREST/any other equivalent reputed brand)	1		
191	Heavy Commerical Vehicle type	(white out body on frame) truck with latest technology. It should be brand new fitted with latest BSVI engine with EATS (exhaust after treatment system) BSVI Engine. The vehicle chassis should be registered at R.T.O Prayagraj in the name of "NSIC-LBI NAINI PRAYAGRAJ"	1		
192	Hydraulic jack Hi-Lift type	3 ton capacity, and 5 Ton capacity	1		
193	Liquid penetrate Inspection kit	standard item from reputed brand	1		

194	Multi Scan Tool with oscilloscope	<p>LAUNCH/ EQUIVALENT Make from reputed brand.</p> <p>Multi Scan Tool with oscilloscope able to scan Engine, ABS & EBD, AT, SRS, SAS, Body Control and immobilizer from all Bharat Stage Vehicles from the year 2004 to till date. ANDROID BASED operating system with Wireless data transmission from car to scanner. Most advance scanner with function of automotive sensor simulation test specially designed to diagnose and simulate vehicle sensor faults for sensors like MAP sensor, Intake air temperature sensor, TP sensor etc. Can also do "DC voltage simulation", "Fixed frequency simulation", "Predefined waveform simulation" and "Hand-painted waveform simulation showing result in scanner itself. Hardware Specifications Operating System: Android 5.1 Display 10.1" IPS display CPU:1.3 Ghz quad core Ram: 1GB Battery: 7000 mAh Camera: Front 2Mp Rear 5Mp.</p>	1		
195	Pipe Bending Machine	12 mm to 30mm(Hydraulic type)	1		
196	Pneumatic rivet gun with standard accessorice	standard item from reputed brand	2		
197	Spring tension tester	standard item from reputed brand	1		
198	Tin Smiths bench folder	standard item from reputed brand	1		
199	Trolley type portable air	Compressor Single cylinder with 45 liters capacity Air trunk, Along with Accessories	1		

		& with working pressure 6.5kg/sq. cm, (EVEREST)			
200	Welding plant Oxy-Acetylene complete	(high Pressure) Both oxygen and acetylene cylinder should brand new with test Certificate from explosive deptt. Nagpur.	1		
201	Welding Transformer	15-300Amps	1		
202	Working Condition of Diesel Engine	<p>CRDi-4 stroke Engine, Assembly with fault simulation board</p> <p>WORKING CONDITION OF DIESEL ENGINE CRDI - 4 STROKE ENGINE ASSEMBLY WITH FAULT SIMULATION BOARD</p> <ul style="list-style-type: none"> • Brand New Diesel Engine CRDI 4 Cylinder, Turbocharged, Aluminum engine head and cast iron block. (Proof of New Engine to be provided - Invoice of Engine Manufacturer or Engine Manufacturer's Authorized Dealer) • Real and operating CRDI Diesel engine, illustrating the structure and working process. <ul style="list-style-type: none"> • Bore: 70 - 90 mm • Stroke: 80 - 110 mm • Displacement: 1100 - 1500 cc • Minimum power: 85 BHP • 4 Valve per cylinder, DOHC, Ignition & fuel system Common rail direct injection. <ul style="list-style-type: none"> • Cooling System: Water Cooling • Complete Panel Board Control with all Brand New Original Equipment Parts (proof to be provided- invoice of manufacturer or manufacturer's authorized 	1		

dealer) like Turbocharger, Catalytic Converter, ECM, BCM, Ignition Switch with Keys, Wiring Harnesses, Instrument Cluster, OBD II Compliant Diagnostic Socket, Electronic Accelerator Pedal, Alternator, Starter Motor, Radiator with Intercooler and cooling Fan, Air Filter Assy., A Mounting, Fuse Box, Glow Plug Timer, Fuel Filter, Engine Sensors like Air Mass Flow, EGR, Lambda/Oxygen Sensor, Fuel Pressure Regulator, Rail Pressure Sensor, Crank Angle/RPM/TDC Sensor, Coolant Temperature Sensor, Cam Angle Sensor, Boost Pressure Sensor, Fuel Temperature & Water in Fuel Filter Sensor, Engine Oil Pressure Switch.

Instrument Cluster should display Battery Charging Light, Oil Pressure Light, and Engine RPM, Fuel level, Glow Plugs, Engine Coolant temperature and other indications.

- Fuel Tank 10 Liter, Engine Accessories - Silencer, New 60AH Battery with Clamp. Wire Mesh/Perforated Sheet Safety Guards for Silencer & Radiator. Plywood/FRP Cover for Panel Board rear side wiring.
- Engine should be in running condition with speed controlled from the accelerator pedal.
- Appropriate Engine Scanner should be provided.
 - Test points should be provided on the printed base so that different voltages/current, resistance

values etc. can tested/understood using a multi - meter.

- Fault setting switch bank should be provided to induce faults in the training module.
- The training module should be fitted with diagnostic socket (DLC) for automobile decoder (Scan tool) to read fault codes, clear fault codes and read live data stream.
- Scanner provided with the set up should able to read, diagnose and erase the below induced faults from the ECM memory o. the module.
- Fault setting switch bank to induce faults for at least the following and the faults should be read/visible in the Scanner of Instrument Cluster:
 - Air Flow Meter Sensor
 - EGR
 - Oxygen/Lambda Sensor
 - Crank Angle/RPM/TDC Sensor
 - Coolant Temperature Sensor
 - Fuel Pressure Regulator
 - Accelerator Pedal Potentiometer/Throttle Control
 - Glow Plug Pre Heating Control Unit
 - Ignition Key
 - Boost Pressure Sensor
 - Fuel Injectors
 - Cam Angle /Timing
 - Engine Oil Pressure
 - Fuel Level
 - Rail Fuel Pressure Sensor
 - CRDI Engine working principle video DVD should be

		<p>supplied.</p> <ul style="list-style-type: none"> • Detailed Manual with Wiring Diagram of the engine to be supplied. <ul style="list-style-type: none"> • Detailed description of different types of generic DTC's to be provided. • The training module should be fabricated using steel pipe frame with spray painted for good looks and the entire setup is provided on caster wheels with brakes for easy movement of the same. <p>Note: Proof of New Engine Certificate and Guarantee Certificate from Engine-Manufacturer should be provided.</p>			
203	Cut section of Diesel of 4/6 cylinder diesel Engine	with moving condition to show momentum of internal parts	1		
204	Fuel injection testbench for calibration of fuel pump	standard item from reputed brand	1		
205	Electrical test bench	standard item from reputed brand	1		
206	Disel Engine	<p>six Cylinder in running condition</p> <p>The engine should be brand new 4 strokes, 6 cylinder BSIV engine with all accessories Radiator, fan, water, cooling system, Diesel tank and complete electrical wiring in perfect running</p>	1		

		condition mounted on M.S channel with Battery			
207	Battery-SMF	standard item from reputed brand	1		
208	Brake Fluids	standard item from reputed brand	5		
209	Chalk, Prussian blue	standard item from reputed brand	2		
210	Chemical Compound for fasteners	standard item from reputed brand	2		
211	Diesel	standard item from reputed brand	150		
212	Different type gasket material	standard item from reputed brand	5		
213	Different type of oil sel	standard item from reputed brand	1		
214	Drill Twist	(assorted)	1		
215	Emery paper	36-60 grit, 80-120	1		
216	Engine Oil & Engne Coolant	standard item from reputed brand	5		
217	Gear oils	standard item from reputed brand	5		
218	Gloves for Welding	(Leather and Asbestos)	10		
219	Hacksaw blade	(Consumable)	1		
220	Hand rubber gloves	tested for 5000v	10		
221	Holder, Lamp Teakwoos Boards plug sockers	standard item from reputed brand	1		
222	Hydrometerr	standard item from reputed brand	16		
223	Lapping abrasives	standard item from reputed brand	1		
224	Leather Apron	standard item from reputed brand	10		
225	Petrol	standard item from reputed brand	150		
226	Power streeing Oil	standard item from reputed	5		

		brand			
227	Radiator Coolants	standard item from reputed brand	5		
228	Safety Glasses	standard item from reputed brand	20		
229	Steel Wire	50mm X 150mm	10		
CLASS ROOM FURNITURE FOR TRADE THEORY					
230	Instructor's table and Chair	<p>Table : wooden finish The size of main table shall be 5' X 2.5' 3 drawers in right side color: black</p> <p>Chair: Officers Chair , full back , with side arm The chair should have a permanent contact mechanism with 360 degree of revolution. The pedestal should have pneumatic height adjustment iron based with metal wheel color : black</p>	2 Set		
231	Student's chairs with writing pads	wooden with mica top , in minimum 1.5 mm section pip, whole body made of steel	25		
232	White board size 1200mm X 900mm	with Aluminium Beading , size 6 X 4 feet	1 No .		
233	LCD projector with screen	(BENQ) HD 1280x800 3600 Lumen Brightness Upto 15,000 Lamp Life HDMI VGA in-Built Speaker 20,000:1 contrast ratio	1 No .		
234	Lockers with drawers	10 lockers & separate locking Arrangements for tranies the body should be 20 gauge thickas	10		

The above list of standard accessories are tentative and the bidder shall have authority to supply additional accessories as they deemed fit for the successful operation of the machines, Tools and Equipments after the supply at site as per NCVT "MECHANIC DIESEL" Trade Tool List Guidelines.



NOTE:

All other details, specifications, Terms & Conditions shall remain the same as in the Original Tender.

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