	Name of the Trade		Mech Au	to Electrical & Electronics
S.No.	Name of the item	Std List No.	Type of the item (Tool / Equipment /	Specifications
(i)	(ii)	(iii)	(iv)	(v)
1	Allen Key set of 12 pieces (2mm to 14mm)	1	T. TOOL KIT	Standard Hexagonal Allen key Set of 12 pieces size Ranging from 2 mm to 14 mm having champhered heads and made of Chrome Vanadium Steel
2	Back probe tools	2	T. TOOL KIT	A High quality back probe tools having high impedance with high gain capable for back probing in all circuits (i.e from PCB to all Circuits available)
3	Caliper inside 15 cm Spring	3	T. TOOL KIT	Spring caliper inside 150 mm, Length & leg - 150mm material leg - medium carbon steel,heavy duty cast alloy body hardened steel point, fully polished
4	Calipers outside 15 cm spring	4	T. TOOL KIT	spring caliper outside 150 mm Length & leg - 150mm material - medium carbon steel, heavy duty cast alloy body hardened steel point, fully polished
5	Center Punch 10 mm. Dia. x 100 mm.	5	T. TOOL KIT	Centre Punch made up of HCS having 10 mm dia as a face diameter and 100 mm Long in Length.
6	Dividers 15 cm Spring	6	T. TOOL KIT	Standard Divider Spring joint of 150 mm Length made of Stainless Steel.
7	Electrician Screw Driver 250mm	7	T. TOOL KIT	Standard Screw driver of 250 mm length and 10 mm blade dia and tip dimension must be 1.5 X 10 mm whose rod must be covered by layer of insulation
8	Hammer ball peen 0.5 kg with handle	8	T. TOOL KIT	Forged Ball Peen Hammer Having weight of 0.5 KG as a Head Weight and wooden handle made of red coloured sheesham wood.
9	Hands file 20 cm. Second cut flat	9	T. TOOL KIT	Flat Hand File Second cut made of High Carbon Steel and length of 20 Cm and handle made of red coloured sheesham wood.
10	Logic probe	10	T. TOOL KIT	A high quality Logic probe tool compatible with all engines and have High impedance current draws less than 7 milliamps ,Quickly and safely tests high and low voltages on all vehicle circuits, including computerized engine and body controls,Tests power and ground voltages,Dual color LED indicates red for power and green for ground on 6, 12 and 24 volt systems,Color coded battery clips and 10 ft. coiled lead
11	Pliers combination 20 cm.	11	T. TOOL KIT	Standard Combination Plier having Length of 20 cm with insulation sleeve
12	Screw driver 20cm.X 9mm. Blade	12	T. TOOL KIT	Standard Screw driver of 20 cm length and 9 mm blade dia and tip dimension must be 1.2 X 9 mm.
13	Screw driver 30 cm. X 9 mm. Blade	13	T. TOOL KIT	Standard Screw driver of 30 cm length and 9 mm blade dia and tip dimension must be 1.5 X 9 mm
14	Scriber 15 cm	14	T. TOOL KIT	A Scriber of 15 cm length made from good grade of steel suitable for tool and point made of Tungston Carbide .

15	Spanner D.E. set of 12 pieces (6mm to 32mm)	15	T. TOOL KIT	Standard Forged DE Spanner set consisting of 12 pieces size varying from 6 mm to 32 mm made of Chrome Vanadium Steel and Chrome Plated .
16	Spanner, ring set of 12 metric sizes 6 to 32 mm.	16	T. TOOL KIT	Standard Forged Ring Spanner set consisting of 12 pieces size varying from 6 mm to 32 mm made of Chrome Vanadium Steel and Chrome Plated.
17	Spanners socket with speed handle, T-bar, ratchet and universal upto 32 mm set of 28 pieces with box	17	T. TOOL KIT	A Standard Spanner socket set of sizes upto 32 mm dia having total no. of 28 pieces and with speed handle ,T Bar Ratchet and universal type made of Chrome Vanadium Steel and Chrome Plated and the box should be metal box.
18	Steel rule 30 cm inch and metric	18	T. TOOL KIT	Standard Steel Rule made of Stainless Steel of 30 Cm Length having marking in inch and cm both
19	Steel tool box with lock and key (folding type) 400x200x150 mm	19	T. TOOL KIT	Standard folding type Steel Tool box with lock and Key arrangement having size of 400 X 200X 150 mm
20	Test light	20	T. TOOL KIT	An ISI marked test lamp connected with two insulated wire leads
21	Wire cutter and stripper	21	T. TOOL KIT	An ISI marked Standard Wire cutter and stripper of good quality.
22	AC alternator slip ring puller	1	Instrument	An Alternator Slip Ring puller made of iron capable of pulling a Slip Ring of 2 to 3 inch Dia
23	Adjustable spanner (pipe wrench 350 mm)	2	Instrument	A Malleable Cast Iron adjustable pipe wrench of max opening 350 mm.
24	Air blow gun with standard accessories	3	Instrument	An air blow gun having following specifications Operating Pressure 3.5 To 16 Bar (50 To 235 Psi) Recommended Working Pressure Upto 6 Bar (90 Psi) Operating Temperature -10°C To 70°C (14°F To 158°F)
25	Air impact wrench with standard accessories	4	Instrument	A 1/2" drive pistol-grip air impact wrench complete with all the accessoies like Flank impact sockets,thin wall deep impact sockets ,impact universal joint,impact universal bar,O ring,Pin,Oil pot etc and PVC/metallic Storage Case
26	Air ratchet with standard accessories	5	Instrument	Air ratchet having following specifications Air Pressure: 90 psig / 620 kpa Max. Torque: 20 ft. lbs. / 27 Nm Free Speed: 240 rpm Standard Bolt Cap: 3/8 in. / 10 mm Overall Length: 8 in. / 200 mm Avg. Air Consumption: 2.5 cfm Air Inlet: 1/4 in. Minimum Hose Size: 3/8 in. / 10 mm and suitable PVC/Metallic Storage Case for storage of above.
27	Allen Key set of 12 pieces (2mm to 14mm)	6	Instrument	Standard Hexagonal Allen key Set of 12 pieces size Ranging from 2 mm to 14 mm having champhered heads and made of Chrome Vanadium Steel
28	Ammeter 300A/ 60A DC with external shunt	7	Instrument	A Digital Ammeter capable of measuring 300 A AC and 60 A DC with the provision of external shunt

29	Angle plate adjustable 250x150x175	8	Instrument	An Angle Plate adjustable made up of Steel or Cast Iron having dimensions of 250 X 150 X 175 mm as a Length X Breadth X Height and height is 175 mm after the final adjustment i.e opened.
30	Angle plate size 200x100x200mm	9	Instrument	An Angle Plate made up of Steel or Cast Iron having dimensions of 200 X 100 X 200 mm as a Length X Breadth X Height
31	Anti theft device	10	Instrument	Standard Centre Locking kit which produces sound ,blink all lights and lock doors if an attempt of unauthorized access will be attempted.
32	Anvil 50 Kgs with Stand	11	Instrument	An Anvil made up of Cast Steel of 50 Kg weight (without stand) with stands .
33	Auto Electrical test bench	12	Instrument	Drive 2 HP Single phase motor, Power Supply 220 V 15A, Alternator load 75 A-12 V & 70 A-24 V, Starter Test Built-in DC Supply with Voltage Stabilizer, easy transportability, full set of leads, separate digital meters for alternators/starter test, 110 V Series lamp for insulation test
34	Battery -charger	13	Instrument	A Battery Charger which provide output ranging from 12V to 24 V and Current ranging from 3Amp to 15 Amp with overload protection and built in ammeter & Voltmeter
35	Battery terminal cleaner tool	14	Instrument	A Battery Terminal Cleaner is a handy wire brush tool that has two "business ends." The first is a socket-style orifice that fits over the top of a battery terminal. The other side is designed to clean the inside of a battery cable.
36	Battery tester	15	Instrument	A latest battery tester which can quickly and easily identify weak or failing batteries and can perform High accuracy Pulse Load Test . After a fully automatic test cycle, percentage of remaining battery capacity is indicated and can Test NiMH, Li-Ion, alkaline, lithium, coin cell, button type and more and needs to be internally powered Display : 6 LEDs - colors green, yellow, red Pulse Load : magnitude varies according to battery type Operation : microprocessor-controlled test cycle Test duration : 2-3 seconds, varies according to battery type Contact terminals : solid brass, nickel-plated
37	Belt Tensioner gauge	16	Instrument	A good quality belt tensioner gauge of latest technology
38	Blow Lamp 1 litre	17	Instrument	A Blow lamp made up of Brass having 1000 ml Storing capacity.
39	Caliper inside 15 cm Spring	18	Instrument	A Standard Inside Spring Caliper capable of measuring 15 cm (inside)made of Stainless Steel
40	Calipers outside 15 cm spring	19	Instrument	A Standard Outside Spring Caliper capable of measuring 15 cm (outside)made of Stainless Steel

41	Car Jet washer	20	Instrument	A Car jet washer conforming to following standards Maximum Pressure: 100 Bar Maximum Flow Rate: 330 litre/hour Hose Length: 3 meters Power Cable Length: 5 meter Power: 1300 watts
42	Car stereo	21	Instrument	A Latest Car Stereo of Power rating of 12 V to 24 V and having power 100 W
43	Chisel 10 cm flat	22	Instrument	Flat chisel made of High Carbon Steel (HCS) having dimension of 12X16X100 mm.
44	Chisels cross cut 200 mm X 6mm	23	Instrument	Standard Cross cut chisel made of Chrome Vanadium Steel hardened having dimensions 6X10X 200 mm.
45	Circlip pliers Expanding and contracting type 15cm and 20cm each	24	Instrument	Standard Circlip Plier External having 20 Cm and 15 Cm Length Standard Circlip Plier Internal having 20 Cm and 15 Cm Length The material for the above must be drop forged
46	Clamps C 100mm	25	Instrument	A Standard C Clamp made of Steel or Cast Iron and width of 100 mm
47	Clamps C 150mm	26	Instrument	A Standard C Clamp made of Steel or Cast Iron and width of 150 mm
48	Clamps C 200mm	27	Instrument	A Standard C Clamp made of Steel or Cast Iron and width of 200 mm
49	Cleaning tray 45x30 cm.	28	Instrument	A Cleaning Tray made up of Iron having the dimensions of 45 X 30 Cm width and material of the tray should be of 20 SWG.
50	Copper bit soldering iron 0.25 Kg	29	Instrument	Supply of Copper bit soldering iron 0.25 kg in weight and fire headed
51	Cylinder bore gauge capacity 20 to 160 mm	30	Instrument	A digital cylinder bore gauge capable of measuring 20 to 160 mm
52	DC Ohmmeter 0 to 300 Ohms, mid scales at 20 Ohms	31	Instrument	A standard DC ohmmeter having scale of 0 to 300 ohms and having mid scale at 20 ohms.
53	Depth micrometer 0-25mm	32	Instrument	A Micrometer comprising to following standards MICROMETER: 0-25MM Measuring Range Max: 25 mm Accuracy mm / Inch: ± 2µm Graduation: 0.01mm Measuring Range Min: 0mm Least count: 0.01mm
54	Dial gauge type 1 Gr. A (complete with clamping devices and stand)	33	Instrument	A good quality dial gauge of Grade A quality of Type 1 and complete with all clamping devices and stand
55	Distributor -Duel advance type, reluctance type	34	Instrument	A latest technology distributor of dual advance and reluctance type .
56	Dividers 15 cm Spring	35	Instrument	Standard Divider Spring joint of 150 mm Length made of Stainless Steel.

57	Drift Punch Copper 15 Cm	36	Instrument	Drift punch copper 15 cm Copper length - 15 cm (150 mm), diameter - 1.5 cm(15 mm)
58	Drill point angle gauge	37	Instrument	A Standard Drill point Angle gauge capable of measuring correct drill angle of 59 degree and must have sliding head and provision of locking the sliding head is must and length of blade should be 6 inch mimimum
59	Drill twist 1.5 mm to 15 mm (various sizes) by 0.5 mm	38	Instrument	A complete set of drill twist or bit made up of carbide ranging from 1.5 mm to 15 mm and variation of the same is 0.5 mm
60	Electric Soldering Iron 230 V 60 watts 230 V 25 watts	39	Instrument	Standard Soldering Iron ISI Marked of Power rating of 60 Watts 230 V and Power rating of 25 Watts 230 V repectively
61	Electric testing screw driver	40	Instrument	An ISI marked Screw driver capable of testing the presence of electricity by energizing the lamp inside the screw driver
62	Electrical horn ( different types )	41	Instrument	A Standard Electrical Horn of 12 V, capable of producing 110 DB Sound minimum while it is energized.
63	Engineer's square 15 cm. Blade	42	Instrument	Standard Engineering Square made of steel consisting 15 Cm Ruler as a blade
64	Executive Auto Electrical tool kit	43	Instrument	Standard Executive Auto Electrical tool kit consisting of basic tools like multimeter,tester ,battery jumping leads ,spanners and screw drivers and other basic tools for minor breakdown assistance and box for the kit should be made of good quality plastic.
65	Feeler gauge 20 blades (metric)	44	Instrument	Standard Feeler guage made up of Stainless steel having 20 Blades
66	File flat 20 cm bastard	45	Instrument	A Standard Flat File long Bastard Type made up of HCS having dimensions of 200 X 20.6 X 5 mm (LX W XT) and handle made of red coloured sheesham wood.
67	File, half round 20 cm second cut	46	Instrument	A Standard Half round File second cut type made up of HCS having dimensions of 200 X 20.6 X 5 mm (LX W XT) and handle made of red coloured sheesham wood.
68	File, Square 20 cm second cut	47	Instrument	A Standard Square File second cut type made up of HCS having dimensions of 200 X 20.6 X 5 mm (LX W XT)and handle made of red coloured sheesham wood.
69	File, Square 30 cm round	48	Instrument	A Standard Square and round File second cut type made up of HCS having dimensions of 300 X 30.6 X 6.6 mm (LX W XT) and handle made of red coloured sheesham wood.
70	File, triangular 15 cm second cut	49	Instrument	A Standard Triangular file second cut type made up of HCS having dimensions of 150 X 16 X 4 mm (LX W XT) and handle made of red coloured sheesham wood.

71	Files assorted sizes and types including safe edge file (20 Nos)	50	Instrument	A Set of assorted files of all sizes and types including safe edge files with wooden handle made of red coloured sheesham wood .Total number of files must be 20 including Safe Edge file flate basterd 300mm ,file flate fine 200mm,file smooth 200mm,file Square 300mm,file half round 200mm,file triangular 150mm,round 200mm dia 20mm
72	Flat File 25 cm second cut	51	Instrument	A Standard Flat File Type made up of HCS having dimensions of 250mm standard and handle made of sheesham wood.
73	Flat File 35 cm bastard	52	Instrument	A Standard Flat File Bastard Type made up of HCS having dimensions of 350 mm handle made of sheesham wood.
74	Glow plug tester	53	Instrument	A standard Glow Plug Tester provides fault detection through LED's for a quick analysis; Short Circuit, Over Current, Normal Operation, Open Circuit/Under Current.it must allows for testing without removing glow plug from engine. it should Powers the glow plug to test the plug in it's operating state.
75	Granite surface plate 1600 x 1000 with stand and cover	54	Instrument	A black Granite Surface plate with dimensions of 1600 X 1000 X 100 mm with wooden cover and Stand supported by a cast iron stand, Granite of Grade- I texture fine, moisture absorbastions Nil specific gravity 3.08g/cm3
76	Grease Gun	55	Instrument	A grease gun complying with following specifications and grease pipe made up of metal Pump Ratio: 40:1 at 150 psi Max. Grease Pressure: 6,000 psi (414 bar) Air Pressure Range: 40-150 psi (2.8 – 10.3 bar) Weight: 5.375 lbs. (2.4 kg)
77	Growler	56	Instrument	A Growler set capable of producing 10 A current at secondary output when operated on 220-230 Volt.
78	Hacksaw frame adjustable 20-30 cm	57	Instrument	Standard Hacksaw frame made of Steel or Iron suitable for 30 cm blade fitment.
79	Hammer Ball Peen 0.75 Kg	58	Instrument	Forged Ball Peen Hammer Having head weight of 0.75 KG as a Head Weight and a handle made of red coloured sheesham wood.
80	Hammer Chipping 0.25 Kg	59	Instrument	Forged Chipping Hammer Having head weight of 0.25 KG as a Head Weight and handle made of red coloured sheesham wood
81	Hammer copper 1 Kg with handle	60	Instrument	Standard Copper Hammer having I Kg as a Head weight with Handlehandle made of red coloured sheesham wood
82	Hammer Mallet	61	Instrument	Standard Wooden mallet made up of red coloured sheesham wood of 4 inch Round Face
83	Hammer Plastic	62	Instrument	Standard Plastic hammer of 4 inch Round Face

84	Hand operated crimping tool (i) for crimping up to 4mm and (ii) for crimping up to 10mm	63	Instrument	A hand operated crimping tool for crimping upto 4 mm and 10 mm repectively
85	Hand reamers adjustable 10.5 to 11.25 mm, 11.25 to 12.75 mm, 12.75 to 14.25 mm and 14.25 to 15.75 mm	64	Instrument	An adjustable hand reamer made up of HSS(High Speed Steel) having range from 10.5 to 11.25 mm , 11.25 to 12.75 mm 12.75 to 14.25 mm, 14.25 to 15.75 mm, For keeping of above material PVC or wooden box should be provided along with material. As per indian standerd
86	Hand Shear Universal 250mm	65	Instrument	A standard Handshear of Overall Length: 250 mm, Handle Material made up of Rubber and Blade Material made up of Steel
87	Hand vice - 37 mm	66	Instrument	A hand vice made up of Cast iron or steel having maximum jaw openings of 37 mm
88	High rate discharge tester (cell tester)	67	Instrument	A Standard High rate Discharge tester which can test High Rate Discharge HRD from5 A to 30 A of Load Test.
89	Holders, lamp teakwood boards, plug sockets, solders, flux wires and cables batteries round consumable blocks and other consumables as required	68	Instrument	Batton Holders made up of PVC and conductor used in the same must be of Brass - 04 Nos. Spark plug sockets suitable for fitment for spark plug of all sizes made up of chrome vanadium steel - 02 Nos. Cable batteries made up of Copper and properly insulated and clamps fitted at each end duly crimped with insulated PVC cap cover suitable for fitment on battery terminal - 04 Nos.
90	Hollow Punch set of seven pieces 6mm to 15mm	69	Instrument	Standard Hollow punch made up of HCS set consisting of punch hole face having 100 mm length dia of 6 , 7 , 8 , 9 ,10.5 , 12 and 15 mm respectively
91	Insulated Screw driver 20 cm x 9mm blade	70	Instrument	Standard Insulated Screw driver of 20 cm length and 9 mm blade dia and tip dimension must be 1.2 X 9 mm.
92	Insulated Screw driver 30 cm x 9mm blade	71	Instrument	Standard Insulated Screw driver of 30cm length and 9 mm blade dia and tip dimension must be 1.5 X 9 mm.
93	Left cut snips 250mm	72	Instrument	A standard Left Cut Snip of Overall Length: 250 mm, Handle Material made up of Rubber and Blade Material made up of Steel
94	Lifting jack screw type 3 ton, 5ton & 20 Ton capacity	73	Instrument	A 3-ton screw jack. The jack needs to be operational by inserting the bar in the holes at the top and turning. A 5-ton screw jack. The jack needs to be operational by inserting the bar in the holes at the top and turning. A 20-ton screw jack. The jack needs to be operational by inserting the bar in the holes at the top and turning.
95	Magneto spanner set with 8 spanners	74	Instrument	A standard forged magneto spanner set of 8 spanners
96	Magnifying glass 75mm	75	Instrument	A Good quality Magnifying Glass of 75 mm Dia

97	Marking out table 90X60X90 cm.	76	Instrument	A marking out table having dimensions of the supporting arrangement 90 X 60 X 90 cm in terms of Length X Breadth X Height and Top of the table should be MS Plate 25 mm and supporting arrangement needs to be made of 50X50X6 angle
98	Multimeter digital	77	Instrument	A Standard Digital Multimeter without Clamp of good quality
99	Multi-point fuel injection pump	78	Instrument	A latest multi point fuel injection pump capable of fitment in all vehicles
100	Oil can 0.5/0.25 liter capacity	79	Instrument	A standard Oil Can made of metal with 0.5 and 0.25 Litres capacity and must be rigid spout ,steel pump,steel metal body and must be powder coated .
101	Oil Stone 15 cm x 5 cm x 2.5 cm	80	Instrument	An Standard Flat oil stone having 150 mm length ,50 mm breadth and 25 mm height or thick.
102	Oscilloscope 20MHz	81	Instrument	CRO 20 MHz, Dual Trace Bandwidth: 20MHz Operating modes: Ch A, Ch B, Alt, Chop, Add Input impedance: 1MΩ±2%, 25pF±3pF Sensitivity: 5mV—5V per division Maximum input: 400V Sweep time: 0.1us—0.2s per division Sweep modes: A, XY, Alt, Mag, 5x Mag Capablity of testing active and passive components
103	Outside micrometer 0 to 25 mm	82	Instrument	Range 0 to 25 least count 0.01 mm Thimble 1 circle =0.5mm
104	Outside micrometer 25 to 50 mm	83	Instrument	Range 25 to 50 least count 0.01 mm Thimble 1 circle =0.5mm
105	Outside micrometer 50 to 75 mm	84	Instrument	Range 50 to 75 least count 0.01 mm Thimble 1 circle =0.5mm
106	Outside micrometer 75 to 100 mm	85	Instrument	Range75 to 100 least count 0.01 mm Thimble 1 circle =0.5mm
107	Philips Screw Driver set of 5 pieces (100 mm to 300 mm)	86	Instrument	Standard Philips Screw Driver Set of 5 pieces having length 100 mm ,150 mm,200 mm,250 mm and 300 mm respectively.
108	Pipe cutting tool	87	Instrument	A Standard adjustable Pipe Cutting Tool capable of cutting the pipes from 4mm to 20mm dia
109	Pipe flaring tool	88	Instrument	A good quality pipe flaring tool 4mm to 20mm made up of low carbon steel with a chrome plating or black oxide finish and capable to flare copper, aluminum, soft steel and brass tubing and enclosed in a storage case
110	Pliers combination 20 cm.	89	Instrument	Standard Combination Plier having Length of 20 Cm
111	Pliers flat nose 15 cm	90	Instrument	Standard Flat Nose Plier having Length of 15 Cm
112	Pliers round nose 15 cm	91	Instrument	Standard Round Nose Plier having Length of 15 Cm
113	Pliers side cutting 15 cm	92	Instrument	Standard Side Cutting Plier having Length of 15 Cm

114	Portable electric drill Machine	93	Instrument	An ISI marked Portable electrical drill machine capable of drilling a 12 mm hole in metal,cement and wood etc .
115	Portable headlight aiming kit	94	Instrument	A Standard Headlight aiming kit which can aim headlights portably and must be of good quality
116	Prick Punch 15 cm	95	Instrument	Standard Prick punch made of HCS of 15 cm Length.
117	Punch Letter 4mm (Number)	96	Instrument	Hardened steel Punch suitable to punch soft metals and mild steel capable of punching numbers and letters having 4 mm dia and should be 100 mm in length minimum
118	Right cut snips 250mm	97	Instrument	A standard Right Cut Snip of Overall Length: 250 mm, Handle Material made up of Rubber and Blade Material made up of Steel
119	Rivet sets snap and Dolly combined 3mm, 4mm, 6mm	98	Instrument	A Rivet sets of Snap and Dolly combined type of 3 mm,4 mm and 6 mm of good quality.
120	Scriber 15 cm	99	Instrument	A Scriber of 15 cm length made from good grade of steel suitable for tool and point made of Tungston Carbide .
121	Scriber with scribing black universal	100	Instrument	A scriber fixed on scriber block and length of post should be from 200 mm to 300 mm.Material discription for scriber and block is defined as above
122	Set of stock and dies - Metric	101	Instrument	A complete Set, Tap and Die, Metric, (3mm to 12mm, Adjustable dies) Metric type thread pitch guage. Made of HSS . Hardend and Toughned
123	Shear Tin Man's 450 mm x 600mm	102	Instrument	A Standard Shear Tinman made up of Iron and having length of 450 mm and 600 mm respectively
124	Sheet Metal Gauge	103	Instrument	A Standard Sheet Metal Gauge capable of measuring from 1 SWG to 30 SWG.
125	Sher Tinmans 300mm	104	Instrument	A Standard Shear Tinman made up of Iron and having length of 300 mm.
126	Soldering Copper Hatchet type 500gms	105	Instrument	Standard Soldering Ironhaving Power Rating of 120 Watts and having copper hatchet of 500 Gms
127	Spanner Clyburn 15 cm	106	Instrument	A clyburn spanner made up of Cast Iron capable of adjusting jaw and maximum opening of jaw should be 15 cm
128	Spanner D.E. set of 12 pieces (6mm to 32mm)	107	Instrument	Standard Forged DE Spanner set consisting of 12 pieces size varying from 6 mm to 32 mm made of Chrome Vanadium Steel and Chrome Plated .
129	Spanner T. flocks for screwing up and up-screwing inaccessible positions	108	Instrument	A Spanner T flocks complete set made up of drop forged material
130	Spanner, adjustable 15cm.	109	Instrument	An adjustable spanner made up of Cast Iron capable of adjusting jaw and maximum opening of jaw should be 15 cm
131	Spanner, ring set of 12 metric sizes 6 to 32 mm.	110	Instrument	Standard Forged Ring Spanner set consisting of 12 pieces size varying from 6 mm to 32 mm made of Chrome Vanadium Steel and Chrome Plated .
132	Spanners socket with speed handle, T-bar, ratchet and universal upto 32 mm set of 28 pieces with box	111	Instrument	A Standard Spanner socket set of sizes upto 32 mm dia having total no. of 28 pieces and with speed handle ,T Bar Ratchet and universal type made of Chrome Vanadium Steel and Chrome Plated and the box should be metal box.

133	Spark lighter	112	Instrument	Spark lighter for use in gas welding
134	Spark plug spanner 14mm x 18mm x Size	113	Instrument	A spark plug spanner 14 mm X 18 mm X 10 mm made up of drop forged material.
135	Steel measuring tape 10 meter in a case	114	Instrument	A Standard Steel measuring tape of 10 Metre Length enclosed in a case and can be rearranged in a PVC/Metallic case .
136	Steel rule 15 cm inch and metric	115	Instrument	Standard Stainless Steel Rule of 15 Cm Length having marking in inch and cm both
137	Steel rule 30 cm inch and metric	116	Instrument	Standard Stainless Steel Rule of 30 Cm Length having marking in inch and cm both
138	Straight edge gauge 2 ft.	117	Instrument	A Straight edge gauge made up of Stainless Steel of 2 Feet Length
139	Straight edge gauge 4 ft.	118	Instrument	A Straight edge gauge made up of Stainless Steel of 4 Feet Length
140	Stud extractor set of 3	119	Instrument	A 4 Piece ,0.5 inch drive socket type Stud extractor set for stud sizes 6,8,10 and 12 mm in storage casemade up of PVC/metal and material of the tool is Chrome Vanadium Steel
141	Stud remover with socket handle	120	Instrument	A universal Stud Remover with the suitable socket handle and made up of Chrome Vanadium Steel
142	Surface gauge with dial test indicator plunger type i.e. 0.01 mm	121	Instrument	A 9" surface gauge with started and tech lock dial indicator magnatic stand and capable to read 0.01 mm
143	Tachometer (Counting type)	122	Instrument	A Standard Latest Digital Counting Type Tachometer having measuring range from 3 RPM to 20000 RPM.
144	Taps and Dies complete sets (5 types)	123	Instrument	A complete set of 5 Types of Taps and Dies in 12mm, 14mm, 16mm, 20mm, 24mm, respects .Tap material must be HSS .
145	Taps and wrenches - Metric	124	Instrument	A complete set of Taps and Dies in 12mm, 14mm, 16mm, 20mm, 24mm,3 to 12 mm adjudtable .
146	Telescope gauge	125	Instrument	A Standard telescopic gauge having Spring-loaded plunger expands within the bore (or groove), allowing determination of the internal diameter(or groove width) and With a knurled clamp.8mm to 150mm
147	Temperature gauge 0-100 deg c	126	Instrument	A Standard Digital Tempreature Gauge Capable of measuring tempreature from 0 to 100 Degree Celcius commonly used in vehicles.
148	Tester sparking plug 'NEON' Type	127	Instrument	Fully enclosed type, Separate cleaning chamber, Double action valve for blasting and subsequent cleaning, Different rubber adopters for cleaning of plugs of 10, 14 and 18 mm sizes with easily removable abrasive and dust store bag, Twin testing chambers connected to compressed air system for charging the chamber with control device, Provision for reducing excess air and releasing pressure in chamber with pressure gauge, Mirror Reflector Chamber window for visual checking.
149	Thermostat	128	Instrument	A latest thermostat suitable for fitment in vehicles.
150	Thread pitch gauge metric, BSW	129	Instrument	A gauge capable of measuring metric and BSW thread pitch 0.1mm to 2.5mm in metric and equilvent BSW

151	Timing lighter	130	Instrument	The timing lighter with xenon flasher lamp for dynamic ignition timing adjustment and can perform following measures and tests:  Basic ignition distributor adjustment  Ignition timing angle  Centrifugal force adjustment  Vacuum adjustment
152	Torque wrenches 5-35 Nm, 12-68 Nm & 50-225 Nm	131	Instrument	A Standard Torque Wrench capable of producing Torque from 5 to 35 Nm A Standard Torque Wrench capable of producing Torque from 12 to 68 Nm A Standard Torque Wrench capable of producing Torque from 50 to 225 Nm
153	Trammel 30 cm	132	Instrument	A standard beam compass with stainless steel scale sutiable for marking the diameter of 30 cm and marking tips are made up of carbide.
154	Universal puller for removing pulleys, bearings	133	Instrument	An Universal puller made up of iron capable of removing the pulleys and bearings of different types.
155	V' Block 75 x 38 mm pair with Clamps	134	Instrument	Standard V Non magnetic block of 75 mm length and 38 mm Jaw made up of cast iron.
156	Vernier caliper 0-300 mm with least count 0.02mm	135	Instrument	A standard Vernier Caliper having least count of .02 mm and scale must be 300 mm long and allows step measurement and posseses Technical DataAccuracy: ±0.03mm (≤180mm), ±0.04mm (≤280mm)Graduation: 0.02mm, 0.02mm (.001") or .001" (1/128"
157	Vice grip pliers	136	Instrument	A standard Vice Grip or locking plier that can be locked into position, using an overcenter action. One side of the handle includes a bolt that is used to adjust the spacing of the jaws, the other side of the handle includes a lever to push the two sides of the handles apart to unlock the pliers the handle must be covered with rubber and entire plier must be made of steel or iron
158	Voltmeter 50V/DC	137	Instrument	An Analog Voltmeter capable of measuring voltage upto 50 V DC
159	Wire Gauge (metric)	138	Instrument	A Wire guage made up of Stainless steel capable of measuring the sizes in metric .
160	Work bench 250 x 120 x 60 cm with 4 vices 12cm Jaw	139	Instrument	Work bench 250 x 120 x 605 cm made of wooden with 4 bench vices of 12 cm jaw opening
161	4 Point relays	140	Instrument	A 4 point relay of 12/24 Volt generally used in Light Motor Vehicles
162	5 Point relays	141	Instrument	A 5 point relay of 12/24 Volt generally used in Light Motor Vehicles

163	Air bag simulator	1	Machineries	An Air bag simulator having following standards Weight of test body between 4.5 kg and 25 kg max.: 16 ±0.2 m/s Weight of test body between 25 kg and 25 kg max.: 12 ±0.1 m/s Weight of test body between 25 kg and 35 kg max.: 12 ±0.1 m/s Weight of test body between 35 kg and 70 kg max.: 9 ±0.1 m/s Displacement of test body during acceleration: 50mm to 400mm Impact accuracy of test body: ±10 mm Travel Ranges: Motorized length setting approx. 340 mm – 2,490 mm Motorized height setting approx. 490 mm – 1,700 mm Swivel Range: Angle of rotation about the cylinder's Y-axis (motorized) ±20° Angle of rotation about the cylinder's Z-axis (manual) ±10° Test stand dimensions (L x W x H) 5,200 mm x 3,000 mm x 2,200 mm
164	Air conditioned MPFI vehicle with auto transmission and accessories	2	Machinery	Petrol Engine, Air conditioned ,Light Motor Vehicle confirming to MPFI (Multi port Fuel Injection )System and having automatic transmission facility.
165	Air conditioning service Unit (Car)	3	Machinery	A Standard Air Condition service unit suitable for servicing of all the air conditioners used for Car and Tools associated with the same should be included in this kit
166	Air conditioning trainer kit	4	Machinery	A Standard Air Condition trainer kit suitable for servicing of all the air conditioners used for automobiles and Tools and service kit associated with the same should be included in this kit
167	Alternator assembly used for LMV	5	Machinery	An Alternator will be of 12 V Rating capable of producing 90 Amp. Current .
168	Arbor press hand operated 2 ton capacity	6	Machinery	A Hand Operated Arbor Press of 2 Ton Capacity having Leverage Ratio of 55 : 1 with Ratchet
169	Bench lever shears 250mm Blade x 3mm Capacity	7	Machinery	Bench shear hand capacity up to 3 mm  1. Length of blade 250 mm  2. Cutting capacity mild steel 3 mm  NOTE- Suitable Extra blades supply two sets with machine
170	Cut section Model of Mock layout of a motor car -electrical system - working model	8	Machinery	A working model capable of demonstrating the construction and working of motor car electrical system
171	Demonstration board Ignition system, ignition coil	9	Machinery	A working model capable of demonstrating basic principle and operation of ignition system and ignition coil for petrol engines.
172	Demonstration board of CRDI system working model	10	Machinery	A working model capable of demonstrating basic principle and operation of CRDI System (Common Rail Direct Injection) for diesel engines

173	Demonstration board of MPFI system working model	11	Machinery	A working model capable of demonstrating basic principle and operation of MPFI System (Multi Point Fuel Injection) for Petrol engines
174	Discrete Component Trainer / Basic Electronics Trainer	12	Machinery	A Discrete Component trainer having following specifications IC based DC Regulated Power Supplies: a.) +12 V / 500 mA
175	Drilling machine bench to drill up to 12mm dia along with accessories	13	Machinery	Piller type Drill machine with drill chuck, 12mm capacity -one HP single phase moter ,With adjustable table, With accessory
176	Dual Magnetization Yoke : AC / HWDC, 230 VAC, 50Hz	14	Machinery	A Dual magnetization yoke having following specifications  * Pole Distance : 50 to 300mm  * Cord Length : 3 Meters  * Input Supply : 220V, 50Hz, 1 Phase & 110V, 50Hz  * Max Current Drawn : AC - 2.2 Amps DC - 2.5 Amps  * Yoke Weight : 4 Kgs  * Controls : Solid State Control
177	Electronic engine control module	15	Machinery	A Standard Electronic Engine Control module used in Light Motor Vehicle.
178	Grinding machine (general purpose) D.E. pedestal with 300 mm dia	16	Machinery	An ISI marked pedestal hand grinder machine capable of accomodating discs of various sizes and maximum disc size that should be suitable for fitment in the machine is 300 mm
179	Liquid penetrant Inspection kit	17	Machinery	A latest liquid penetrant or dye penetrant inspection kit that must not cause permanent staining or degradation on metal body
180	Memory keeper / Battery backups	18	Machinery	A latest technology memory keeper capable of recording and holding data of battery backups

181	Multi scan tool /ECU diagnostics kit	19	Machinery	A Scan Tool Capable of measuring the RPM of all petrol and diesel engines, IAC Duty, Injector Pulse Width, Throttle position Voltage, Dvell Angle, Temperature, Battery Voltage, DC volts, Continuity, Ohms, KiloOhms, Amperes, Sensor values can be checked, High Tension Cords can be checked, Alternator Over Charging & Low Charging, Self Load and condition, Current Leakage and laptop associated with the scanner is included in this kit.
182	Petrol Engine(4-stroke) Motor Cycle/Scooter along with special tools and accessories	20	Machinery	A Latest 4 Stroke Scooter/Motorcycle (petrol engine )complete with all the accessories and special tools associated with the vehicle which are required for its maintenance.
183	Pipe Bending Machine (Hydraulic type) 12mm to 30mm	21	Machinery	A Hand operated hydaulic type pipe bending machine capable of generating Hydraulic pressure of 10 Ton
184	Pneumatic rivet gun	22	Machinery	A Pneumatic Rivet Gun having following specifications Air Pressure 5-7 Bar (75-100 lbf/in Square) (Minimum-Maximum) Free Air Volume Required 8 Litres (.28 Ft cube) (@ 5 bar/75 lbf/in square) Stroke Maximum 7 mm (.276 in) Motor Speed Spin On 2000 RPM Spin OFF 2000 RPM Pull Force @5 bar/75 lbf/in Square 19.1 kN(4300 lbf) Cycle Time Approximately 2.5 Seconds Noise leve Less than 75 dB(A) Vibration Less than 2.5 m/s square (8 ft/s Square)
185	Spring tension tester	23	Machinery	A Spring tension tester capable of Capture loads at up to 8 preset heights, Capture heights at up to 8 preset loads, Auto spring rate computation, Spring classification, Metric to English conversion and following specifications Load Cells (1 standard) 5 lb (2.3 kg),10 lb (4.5 kg),20 lb (9 kg),25 lb (11 kg) Daylight Opening 4 inches (101 mm) Platen Diameter 2 inches (50 mm) Load Accuracy 0.25 % Full Scale Height Resolution 0.0002 inches (0.005 mm)
186	Starter motor axial type, pre- engagement type & Co-axial type	24	Machinery	Starter motor will be of Power 1 Kw,12 V and 4 Pole DC motor.  An Alternator will be of 12 V Rating capable of producing 90 A Current.  A dynamo cut out will be of 12 V Rating capable of producing 40 A Current
187	Trolley type portable air compressor single cylinder with 45 liters	25	Machinery	A Standard Air Piston type (vehicular) Air Compressor having 1 cylinder, 1 HP motor and tank capacity of 45 Litres fitted on trolley

188	Ultrasonic Injection cleaning equipment	26	Machinery	An Ultrasonic injection cleaning equipment having following functions of Direct flush ,Reverse flush, Ultrasonic cleaning, On-vehicle cleaning, Uniformity & Sprayability test, Leakage test, Injecting flow test, Auto cleaning-test function and having following specifications  Power supply AC220V 50/60Hz / AC110V 50/60Hz  Input power 350 W  Fuel system cleaning & 0 to 7 bar test pressure  Flow test accuracy 2  Simulated RPM range 0 to 9990 rpm  Step 10 rpm  PW range 0.1 to 30 ms , Step 0.1 ms  Timing range 1 to 30min  Ultrasonic timing range 0 to 15min  Wireless frequency 433 MHz  Diagnostic protocol standard All OBD compliance (OBDII,Pressure testing range for wireless module 0-20 Bar
189	Welding plant Oxy-Acetylene complete ( high pressure)	27	Machinery	WELDING PLANT OXYACETYLENE COMPLETE (HIGH PRESSURE) GAS CUTTING AND WELDING SET 1) DOUBLE STAGE REGULATIONS FOR OXYGEN AND ACETYLENE suitable for 230 bar inlet pressure and imported safety pressure gauges designed for 300 bar service pressure, confirming to EN-837 standards. 2) GAS CUTTING TORCH 3) HIGH PRESSURE BLOW PIPE 4) CYLINDER TYPE FLASH BACK ARRESTORS with protection valves. 5) TORCH TYPE FLASH BACK ARRESTORS * It should have both check valve and sintered filter 6) Hoses 8mm should be supply ten meter along with clamps and ripples. Cylinder trolley should be of tubes castor wheels.

190	Welding Transformer ( 150-300 Amps)	28	Machinery	Welding Transformer having following specifications Welding current range = 35-300 Welding voltage = 24-32 Continuous hand welding current = 240 Max international current = 300 Continuous welding current = 170 Open circuit voltage = 65 Electrode size continuous = 6 to 16G K.V.A RATED = 15 Fuse rating max at 400 v = 45 capacitor = 7 (KVAR)
191	Wiper motor assembly	29	Machinery	A DC Wiper motor having a Low Speed of 30 RPM and High Speed of 48 RPM of 12V/24 V.However Tolerance of 20 % will be acceptable
192	Working Model of power windows	30	Machinery	A demonstration model capable of demonstrating basic principle and operation of power windows
193	Book shelf (glass panel) 6.5' x 3' x 1.5'	1	Machinery	A Standard Book shelf made up of MS sheet 20 SWG having 5 nos equally spaced compartments. The Dimensions of the Book shelf will be 6.5 X 3 X 1.5 Ft. & front side doors with plain glass fitted & having locking arrangement

194	Computer Chair	2	Furniture	Computer chair specifications - Seat & Back of the Computer Chair shall be made of plywood upholstered with fabric and moulded polyurethane foamMid Back size shall be 45 (W) x 53 cm (H) and Seat Size shall be 50 (w) and 48 cm (D). The polyurethane foam is to be moulded with density =45±2 kg/m3. Armrests (fixed) shall be scratch and weather resistant made of black integral skin polyurethane reinforced with M.S. insert. Should have 360 degrees revolving facility, back tilt facility & Upright position locking facility & height adjustment facility.
195	Computer Table	3	Furniture	Computer Table of size – 3 feet length X 2 feet width X 2.5 feet height, top make of both sides pre-laminated board of 19mm. The edges of the computer table top to be covered with PVC beading, sliding key board tray of 22 inches in length and 3 shelves for keeping the CPU, UPS, printer and other accessories.
196	Desktop computer and related MS office software	4	Furniture	Latest PC 4th Genration(Intel i7 microprocessor ,3.4 GHz,8 MB cache with 4 GB Ram and 1 TB Hardisk ,Wifi enabled ,USB optical mouse,multimedia key board LED and 23" LED Monitor ,Standard ports and connectors ,DVD Writer ,Speakers and Mic wih window 8.1 and antivirus preloaded.
197	Discussion Table 8' x 4' x 2.5'	5	Furniture	A discussion table made of wood having dimensions of 8 Feet X 4 Feet X 2.5 Feet having a rigid MS structure to support the arrangment and top should be 19 mm high quality SANMAICA finished surface
198	Fire Extinguishers, first- aid box	6	Furniture	Standard Fire Extinguisher of Dry Powder or CO2 Type capable to extinguish Class C Fire and a Basic first Aid Box suitable for providing first aid to industrial accident victim
199	Instructional Material - NIMI Books/Ref.books	7	Furniture	A latest instructional material-NIMI (National Instructional Media Insitute-Chennai)books and Reference books trade related subjects as available in market.
200	Internet connection with all accessories	8	Furniture	A Broad band Connection with all the accessories like modem ,ADSL splitter etc and wiring suitable for easy access to the place of PC
201	Laser printer	9	Furniture	Workgroup printer - Laser - Monochrome - Monochrome Legal (8.5 in x 14 in) A4 (210 x 297 mm) A4 (8.25 in x 11.7 in) Legal (216 x 356 mm)Printer / Interface USB, minimum speed 30 PPM, Print Quality: Upto 2400x600 dpi with automatic image refinement. Prinet Resolutioin: Upto 600x600 dpi, having option of double sided printing, Automatic, Memory: minimum 16 MB.
202	LCD projector/ LED /LCD TV (42")	10	Furniture	LCD Projector - type DLP, Multimedia projector display technology , Light output 3700 lumens, 1024x768 resolution, aspect ratio-4:3,contrast ratio-3000:1 with standard accessory

203	Multimedia DVD for Automotive application/subjects	11	Furniture	A latest Multimedia DVD for automotive applications and trade related subjects as available in market.
204	Online UPS 2KVA	12	Furniture	A quality online UPS of 2 KVA having surge protection a ,fault indications,circuit diagram printed ,Full time multi-pole noise filtering : 5% IEEE surge let-through : zero clamping response time,Resettable circuit breakers, along with batteries for providing the back up of 2 KVA along with the connecting leads,rack for batteries and for UPS

205	Stools	13	Furniture	Square pipe body 25 x 16 gauge top wooden 15"x 15"
206	Storage Rack 6.5 ' x 3' x 1.5' feet	14	Furniture	A Standard metal shelving rack open type made up of iron having structural arrangement of L angles so that the shelves can be easily adjusted into it and shelves should be made up of 20 SWG material and no. of shelves should be 5 .The Dimensions of the rack will be of 6.5 X 3 X 1.5 Ft .
207	Storage shelf 6.5 ' x 3' x 1.5'	15	Furniture	A Standard metal shelving rack open type made up of iron having structural arrangement of L angles so that the shelves can be easily adjusted into it and shelves should be made up of 20 SWG material and no. of shelves should be 5 .The Dimensions of the shelf will be of 6.5 X 3 X 1.5 Ft.
208	Suitable class room furniture	16	Furniture	Dual Desk - Table: 54" Length, 14" width, 30" height, Seating Bench: 54"length, 10" width, 18" height, gap 10". Rack 8" below writing top, angled frame with sunmica top, Board both sides laminated 19mm(3/4"), Sq. Pipe medium 25mm-B Class 16 gauge, (Sketch appendix at page-A)
209	Suitable Work Tables with vices	17	Furniture	Work bench 340x120x75 cm made of heavy wooden top of atleast 50mm thick wood and frame made of angle 50*50*6 mm as per IS 808 -1989 fitted with rigis supports with 4 bench vices of 150 mm jaw opening as per IS 2586-1986 ,bush made of gun metal
210	Tool Cabinet - 6.5 ' x 3' x 1.5'	18	Furniture	A Standard Tool Cabinet made up of iron having capacity of 8 Drawers having 6.5 Ft X 3 Ft X 1.5 Ft Dimensions (Length X Breadth X Height) and material of the locker is of 20 SWG and entire cabinet should be powder coated.
211	Trainees locker 6.5' x 3' x 1.5'	19	Furniture	A Standard Steel Locker having capacity of 8 compartment having 6.5 Ft X 3 Ft X 1.5 Ft Dimensions (Length X Breadth X Height) and material of the locker is 20 SWG and entire locker should be powder coated with locking arrangement of each compartment.
212	Draughtsman drawing instrument box	1	T. TOOL KIT	A standard Draughtsman drawing instrument box having ABS Plastic Box, containing one half-set compass 15 cm, One divider 15 cm, center wheel compass, Central wheel divider and lead case, tightening key/ screw driver, Lengthening Bar, handle for hand work, Ink Point central wheel Ink compass, pen and pencil point, Rotring type attachment, blow pen and lead case
213	Set square celluloid 45° (250 X 1.5 mm)	2	T. TOOL KIT	Set square celluloid 25 cm, 1.5 mm thick with measurement angle 45 degrees.
214	Set square celluloid 30°-60° (250 X 1.5 mm)	3	T. TOOL KIT	Set square celluloid 25 cm, 1.5 mm thick with measurement angles 30 -60 degrees.
215	Mini drafter	4	T. TOOL KIT	A standard mini drafter of good quality
216	Drawing board (700mm x500 mm) IS: 1444	5	T. TOOL KIT	A good quality drawing board having top finiished with MATT Laminated surface having dimensions of 700 mm X 500 mm and conforming to IS: 1444 standards.

217	Draughtsman table	1	Furniture	Standard adjustable draughtsman table having high grade material sturdy construction perfect finish and durability, Fabricated from quality raw material. The product is rigid stable structure made of MS pipe, with powder coating having adjustment of Height and Angle to ensure comfort at various postures during working. Available for board sizes 30x42". and board must be finished with MATT laminated top
218	Draughtsman stool	2	Furniture	Made of sheesham wood, Top 15.5" x 15.5" x 3/4" and height 30".