

**SYLLABUS FOR TRADE OF TWO WHEELER AUTO VEHICLE REPAIRER.**

WK NO.	PRACTICAL	THEORY	ENGG. DRWG.	WORKSHOP CAL.& SCI.
1	Introduction to the trade, Safety precautions and first aid treatments, fire Fighting equipments.	General introduction to Course duration and the Course contents, Rules And regulations of the institute		
2	Brief history of an Automobile industries and advancement in	Theory on types of autoativevebiiiiicicles	Concept of engg. Drawing .	
3, 4	Details and construction of Automotive hand too And equipment	Uses and maintenance of Hand tools .	simple geometrical construction .	Simple addition & subtraction.
5	Introduction to the accessories of the two wheeler auto vehicle.	Requirements and uses of different accessories.	-as above-	Simple Multiplications & division .
6	Type of two wheelers	Classification of two Wheelers	Freehand sketches.	-as above-
7, 8	Systems to the two wheelers, ignition, carburetion etc.	Theory on the various systems.	-as above-	fraction.
10, 11	Introduction to frame, major assemblies, sub Assemblies and their Function.	Introduction and function Of various main parts of Two wheelers.	- as above-	-as above-
	Chassis, different	Introduction theory on	-as above-	

12, 13	types and constructional details And maintenance.	Chassis.		
14	Repairing and alignment Of chassis.	Construction and function of chassis.		
14 15, 16	General faults, diagnoment and remedial measures for two and four stroke engines.	Theory of two and four stroke engines. Merits and demerits.		
17	Repair and maintenance of two strokes engines.	Precautionary measures while repairing of engines.		
18	Removing of cylinder head, piston connecting rod, cleaning de- carbonizing and head checking. Piston and ring clearance setting			
19	Repair and maintenance of four stroke engines.	Overhauling of engines, performance And specific fuel consumption.		

20	Removing of cylinder head, piston connecting rod cleaning de-carbonizing and head checking. Piston and ring clearance setting. Valve clearing, checking and reconditioning.			
21	Sciences, repairing and maintenance.	Silencers in general.		
22	Diagnosing noises and faults in engines and Rectification.			
23	Performance test. Use of dynamometer and test benches.		Sketch of lighting and ignition system.	
24	Electrical system. lighting and ignition.	Lighting and ignition system.		
25	Electronic ignition repair and maintenance.		-as above-	
26	General faults, Diagnosis and Remedial measures for lighting system.			
27.	General faults, Diagnosis and Remedial measures for lighting system.	Suspension system, their classification and requirements.		
28	Suspension system. Repair and maintenance.			
29.	Front and rear suspension, axles, steering, bearing and	Braking systems, their type and uses.		

	thrust bearing assemblies repair and maintenance.			
30.	Trouble shooting in suspension, steering and bearing.	General theory on carburetion.		
31, 32	Brakes. General faults, diagnosis and remedial measures. Braking efficiency and testing.	Theory on wheels and tyres.	Sketches of carburetor and sys	
33, 34	Carburetion. General faults, diagnosis and remedial measures.	Clutch in general.		
35.	Tuning and setting of carburetor.			
36, 37	Wheels and tyres, their general faults, diagnosis and remedial measures.			
38, 39	Repair and maintenance of clutch and clutch settings.			
40.	Oil pump repair and mainenance.			
41.	Transmission system. General faults, diagnosis and remedial measures for different models of two wheelers.	Types if drives.		
42.	Repair and maintenance of transmission system. Gear Box, General faults, diagnosis and			

43, 44	repairing. Testing and general settings.	Introduction to preventive maintenance of gear box.		
45.	Fuel and air supply system, maintenance repair and general faults.	Theory of fuel/air system.		
46, 47	General servicing and Road testing. Typical service station equipments for routine servicing.	Preventive maintenance of vehicle		
48.	LOCAL INDUSTRIAL TOURS.	LOCAL INDUSTRIAL TOURS.		
49, 50 & 51.	REVISION  TEST	REVISION  TEST		
52.				

**LIST OF TRAINEE TOOL KIT, TOOLS/EQUIPMENTS AND RAW MATERIAL**

<b>NO.</b>	<b>DISCRIPTION</b>	<b>QUANTITY</b>
<b>* TRAINEE TOOLKIT</b>		
1.	Apron	One each per trainee
2.	Hammer BallPoint (75 kg.)	One each per trainee
3.	Hide Face Hammer.	One each per trainee
4.	File set of 300 mm. (assorted)	One each per trainee
5.	Centre punch 100 mm.	One each per trainee
6.	Hollow Punch, 100 mm.	One each per trainee
7.	Steel Rule 300 and 150 mm.	One each per trainee
8.	Depth scale, 150 mm.	One each per trainee
9.	Screw Driver 300 X 10 mm. Round blade	One each per trainee
10.	Screw Driver 300 X 10 mm. Square blade	One each per trainee
11.	Screw Driver 200 X 8 mm. Round blade	One each per trainee
12.	Screw Driver 200 X 8 mm. Square blade	One each per trainee
13.	Double Ended and Ring Spanner Set of 12 metric. 6 – 32 mm.	One each per trainee
14.	Pliers combination 150 mm.	One each per trainee
15.	Philips screw driver 200 mm.	One each per trainee
16.	Steel Tool Box with Lock and Key.	One each per trainee

NO.	DISCRIPTION	QUANTITY
* TOOLS AND EQUIPMENTS.		
1.	Test Bench consists of Voltmeter, Amp. Meter to test various lighting and ignition system with power supply and protecting system.	1 no.
2.	Exhaust gas monitoring system to check 3 gases	1 no.
3.	Air compressor 150 PSI	1 no.
4.	Techo meter 15000 RPM	1 no.
5.	Temperature indicator with Thermo couple.	1 no.
6.	Torque wrench	1 no.
7.	Service Pump 300 Lt. Tank Hot water Jet Type	1 no.
8.	Engine Analyzer for scooters and motor cycles	1 no.
9.	D.C. power supply, 0-30 volt, up to 15 amps. Capacity	1 no.
10.	Multi meter, Analog type to measure volt, ampere and resistance in micro as well as higher range.	2 no.
11.	Portable meters multi range, volt, amp and ohm,	1 each
12.	Soldering Iron 25 watt	3 no.
13.	Solder ting Iron 250 watt.	3 no.
14.	Knives, 100 mm.	6 no.
15.	Scissors, 150 mm.	6 no.
16.	Magnetic Spanner set.	2 sets.
17.	Box Spanner set, 6 to 32 mm with Tommy bar and rachate.	3 sets.
18.	Tubular box spanner set.	
19.	Socket spanner set, British and metric.	
20.	Diamond cutter 150 mm.	6 nos.
21.	Wire stripper 1 to 4 sq. mm.	6 nos.
22.	Long nose plier, 150 mm.	6 nos.
23.	Bent and Square nose plier, 150 mm.	3 each
24.	Hacksaw frame, 300 mm.	6 nos.
25.	Electric Hand Drill EJ3C type.	1 no.
26.	Magnetic ink board, 3 ft * 6 ft.	1 no.
27.	Dial Gauge, Metric	2 nos.
28.	Wheel pullers, 100 and 200 mm	2 each.
29.	Calipers, inside and outside 150 mm.	3 each.
30.	Piston ring expanders.	2 nos.
31.	Valve seat grinder.	1 no.
32.	Spring testing unit.	1 no.
33.	Compressor gauge.	4 no.
34.	Coil Tester	1 no.
35.	Air Gauge.	2 nos.
36.	Air gun.	2 nos.
37.	Oil gun.	2 nos.
38.	Grease gun.	2 nos.
39.	Oil can, ½ pint.	4 nos.
40.	Scrubber for washing spare parts.	1 no.
41.	All types of two wheeler auto vehicles.	1 each
*	<b>RAW MATERIALS</b>	<b>(As per need)</b>
1	Soldering core and flux.	

2	Auto cable wire 0.5 to 5 sq. mm		
3	Flexible wire 1 sq. mm		
4	Fuse wire. Lead tin 1 to 5 amps. Cap		
5	Kerosene		
6	Grease.		
7	Rustolin.		
8	Cotton waste.		
9	Hacksaw blades, HSS 300 mm		
10	Mica sheet.		
11	Insulating paper		
12	Nut, Bolts and Metal Screw assorted		
13	First Aid Box.		
14	Carbon Tetra Chloride.		
15	PVC Tape.		
16	Cotton tape.		
17	Hook up wires		
18	Terminal lugs assorted.		
19	Drill Bits, 3 to 12 mm		
20	Nails assorted		
21	Magnetic ink pen and duster.		
22	Die and tap sets		
23	Patrol		
24	Oils		
25	Packing assorted.		
26	De-carbonizing spray.		
*	<b><u>EXAMINATION SETUP</u></b>		
1	Trade Theory	Two Hours	50 Marks.
2	Practical.....	Eight Hours	300 Marks.