# Faculty of Mechanical Engineering M.E. Automobile Engineering (R 2021) Semester – I

Course Code: AM4111 Course Title: Engine and Chassis Component Laboratory				
SI. No.	Description of Equipment	Required Numbers (For batch of 25 students)		
1	1000CC Engine / Passenger Car Engine	1		
2	Six-cylinder Engine/ Truck Engine	1		
3	V8 Engine / Equivalent	1		
4	CRDI Engine (Car /SUV)	1		
5	MPFI Engine (Car /SUV)	1		
6	Single plate, Diaphragm Clutch	1		
7	Constant mesh, Sliding mesh gear box	1		
8	Transfer case	1		
9	Live Rear axle	1		
10	Live and Dead Front axle.	1		

# Faculty of Mechanical Engineering M.E. Automobile Engineering (R 2021) Semester – I

Course Code: AM4112 Course Title: Automotive Electrical and Electronics Laboratory				
SI. No.	Description of Equipment	Required Numbers (For batch of 25 students)		
1	Lead acid battery, Portable battery tester, Multi meter, Hydrometer, High discharge tester	1		
2	Starter motor and alternator test bench and tools	1		
3	Ignition system test setup	1		
4	Entire Automotive electrical system Kit	1		
5	Microprocessor Programming Kits and Accessories	6		
6	Displacement Measurement Using LVDT kit	1		
7	Vibration Measurement using Accelerometer kit	1		
8	Temperature Measurement using Thermocouple kit	1		
9	Motor Speed Measurement using Magnetic pick-up kit	1		
10	Microcontroller kit, Stepper and DC motor	1		
11	Power supply, Bread board, IC, LED, Wires, Resistors, Capacitor, LED and LCD display and other components.	6		
12	ADC and DAC kit	1		
13	OBD Scan Tool Kit	1		
14	Oscilloscope	1		

## **Faculty of Mechanical Engineering**

### M.E. Automobile Engineering

#### (R 2021) Semester – II

#### AM4211 ENGINE AND VEHICLE TESTING LABORATORY

S.No	Description of Equipment	Required Numbers
1	Multi Cylinder SI Engine test setup	1
2	Single-cylinder CI Engine test setup	1
3	Motoring dynamometer test setup	1
4	Engine test setup with a heat balance test	1
5	SI / CI Engine test setup with mass air flow measurement	1
6	Live / Dead axle assembly	1
8	Clutch / Brake pedal setup	1
9	Wheel alignment machine	1
10	Vehicle transmission system /model	1
11	Vehicle braking system /model	1
12	Vehicle suspension system /model	1
13	Battery tester	1
14	Ignition system tester	1
15	Dynamo / Alternator tester	1
16	Lighting system/model	1
17	Body repair and painting tools set	1

# **Faculty of Mechanical Engineering**

## M.E. Automobile Engineering

(R 2021) Semester - II

#### AM4212 DESIGN AND MODELLING OF VEHICLE COMPONENTS LABORATORY

SI.No.	Description of Equipment (For Batch of 30 Students)	Required Numbers
1	Computer Nodes	30
2	Modelling Software	30 Licences