

COURSE TITLE : VEHICLE TESTING LAB
COURSE CODE : 6058
COURSE CATEGORY : A
PERIODS/WEEK : 6
PERIODS/SEMESTER : 90
CREDITS : 3

TIME SCHEDULE

Module	Topic	Periods
1	Tools/ equipments/servo brake unit study	19
2	Wheels/Tyres/Head lamp unit repair work	21
3	AC Units/ ignition units/brake testing, trouble shooting and maintenance	25
4	Tuning of FIP, Testing of vehicles on road.	25
TOTAL		90

GENERAL COURSE OUTCOME

Sl. No.	Sub	Students Will be able to
	1	Understand the use of tools and equipment in Vehicle Testing Lab.
	2	Identify various servo brake units.
	3	Compare the types of maintenance systems.
	4	Identify various testing equipments used for servicing and repair of automobiles
	5	Carryout repairs on A C unit in an Automobile.
	6	Dismantle and troubles shoot the components of, Ignition system and Brake Units.
	7	Execute various adjustments in fuel injection pump for its proper functioning in an Engine.

SPECIFIC COURSE OUTCOME

Module	G.O	Student will be able to
1	1	Understand the use of tools and equipment used in Vehicle Testing Lab.
	2	Identify various servo brake units.
2	1	Compare and understand the types of maintenance systems.
	2	Identify various testing equipment used for servicing and repair of automobiles
	3	Identify whether to repair or replace Wheels, Tyres and Head light units in an Automobile.
3	1	Dismantle and trouble shoot the components of A C Unit, Ignition system and Brake Units .

	2	Check the components for proper functioning.
4	1	Execute various adjustments in fuel injection pump for its proper functioning in an Engine.
	2	Execute tuning of fuel pump
	3	Drive and test the vehicle

COURSE CONTENT

CYCLE I

1. Familiarise the Tools and Equipment used in Vehicle Testing Lab
2. Study the different units of vacuum servo and air brake units
3. Dismantling and assembling of air brake units (brake valve , unloaded valve, brake chamber)

CYCLE II

1. Wheel balancing and wheel alignment testing.
2. Automatic tyre changer.
3. Head light beam alignment.

CYCLE III

1. MPFI sensor identification and testing.
2. Testing of car AC.
3. Ignition system testing.
4. Disc brake overhauling, adjustments and testing.

CYCLE IV

1. Smoke testing of Diesel and Petrol engines.
2. Fuel injections pump calibration and phasing.
3. Student must be able to drive and test the vehicle.