

## Lesson Plan

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Name of the Faculty : Dinesh Jain

Discipline : Automobile Engg.

Semester : 5th.

Subject : Chassis, Body & Transmission (Theory & Practicals)

Lesson Plan Duration : 15 weeks (July 2018 to Nov. 2018)

Week	Theory		Practical & Practical.	
	Lect. Day.	Topic	Pract Day	
1st	1	Function & Types of Suspension System	1	Study and servicing of coil spring type suspension system.
	2.	Suspension springs - Function, construction, material & Types.	2.	Study & servicing of Leaf spring type suspension system.
	3.	Spring & unsprung wt, characteristics of spring materials, Types of Leaf Springs.		
2nd	1.	Leaf spring Terminology, Spring eye, bushes, leaf sections, rubber pads.	1	servicing & Testing of shock absorbers.
	2.	Pressure block, spring covers, interleaf inserters,	2.	Type changing practice.
	3.	Variable rate spring, Helper spring.		
3rd	1.	Pneumatic suspension system.	1.	Retreading of Tyres (Visit to Auto market)
	2.	Function & Construction of Shock Absorber.		

	3.	Diagnosis of Common faults & their remedies.	2.	visit to Auto-market. <sup>2.</sup>
4th	1.	wheels - Types & Constructional details.	1.	Servicing & overhauling of Mechanical Brakes.
	2.	Material used for wheels, Tyres classification	2.	- do -
	3.	Function of Tyres, pneumatic Tyres.		
5th	1.	Tread Breakers, bead, casing Comparison of cross ply & radial ply.	1.	Brake shoes Changing Practice
	2.	Causes of excessive tyre wear, Tyre care & maintenance.	2.	Brake Adjustments.
	3.	Tubular Tyres, Run flat Tyres, Retreading of Tyres.		
6th	1.	1st Sessional Test.	1.	Servicing of Hydraulic Brakes
	2.	Brakes, purpose, Layout of Braking system, components	2.	Bleeding of Brakes.
	3.	Types of Brakes: Mech, hydraulic, power.		
7th	1.	Hydraulic Master Cylinder & wheel cylinder.	1.	Study of Hand Brakes
	2.	Drum Brakes Const. & working Leading & Trailing shoes.	2.	- do -
	3.	Disc Brakes - Construction & working, Hand Brake.		

	<ol style="list-style-type: none"> <li>1. Construction &amp; working of Air Brakes.</li> <li>2. Construction &amp; working of Air-hydraulic Brakes.</li> <li>3. Construction &amp; working of Hydrovac Brakes</li> </ol>	<ol style="list-style-type: none"> <li>1. Wheel Balancing - <span style="float: right;">(3)</span></li> <li>2. - do -</li> </ol>
9th	<ol style="list-style-type: none"> <li>1. Brake Fluid, its Characteristics</li> <li>2. Antilock Brake System, Brake Tests.</li> <li>3. Common Faults &amp; their rectification.</li> </ol>	<ol style="list-style-type: none"> <li>1. Disc Pad Changing in Disc Brakes</li> <li>2. Lubrication in disc Brakes.</li> </ol>
10th	<ol style="list-style-type: none"> <li>1. 2nd Sessional Test.</li> <li>2. Classification of vehicles according to body, Car Body.</li> <li>3. Types of Car Bodies.</li> </ol>	<ol style="list-style-type: none"> <li>1. Removing &amp; Refitting of Car Body parts</li> <li>2. - do -</li> </ol>
11th	<ol style="list-style-type: none"> <li>1. Body &amp; frame Types.</li> <li>2. Various Body Panels</li> <li>3. Body Materials, Body Painting Process.</li> </ol>	<ol style="list-style-type: none"> <li>1. Practice on body Repair</li> <li>2. - do -</li> </ol>
12th	<ol style="list-style-type: none"> <li>1. Preventive Design for Automotive safety</li> <li>2. Designing for minimum injury in accident</li> <li>3. Seat Belts, Air Bags</li> </ol>	<ol style="list-style-type: none"> <li>1. Practice on Body Repair</li> <li>2. - do -</li> </ol>

- 1. Electronic Vehicle stability.
- 2. Occupant Protection Systems
- 3. Pedestrian Protection

- 1. Vehicle Safety & Security Flex.
- 2. - do -

14th

- 1. History of Automobile.
- 2. Leading Manufactures of Automobiles, their market share.
- 3. Recent development in Automobiles.

- 1. Vehicle specification Flex.
- 2. - do -

15th

- 1. specification of chassis & transmission system in two wheels.
- 2. specification of chassis & Transmission in four wheelers.
- 3. 3rd Seasonal Test.

- 1. flex on Recent Development in Auto Industries
- 2. - do -