

# Govt. Polytechnic, Nawada

## Lesson Plan

Lecturer Name :- Prem Prakash

No of Week- 18

Subject :- Automobile Engineering

Subject Code :-1625505

Semester :- IIIrd

Branch :- Mechanical Engg.

<b>Unit-01 :- Introduction of Automobile</b>			
Sl. No.	Topic Coved	Duration required in hrs.	Platform
1.1	Classification of automobiles.	1	Google Classroom/vcs/youtube
1.2	Body construction - Types & Nomenclature of car body. Introduction to aerodynamic body	2	Google Classroom/vcs/youtube
1.3	Vehicle layout & types	1	Google Classroom/vcs/youtube
1.4	Automobile market in India of “on road vehicles”, major manufacturers, their products & their collaborations.	2	Google Classroom/vcs/youtube
Classl Test		1	GOOGLE FORM
<b>Unit-02 :- Automobile Transmission</b>			
Sl. No.	Topic Coved	Duration required in hrs.	Platform
2.1	Clutch- necessity, construction & working of coil spring & diaphragm spring type clutch	3	Google Classroom/vcs/youtube
2.2	Gear Box- tractive effort and tractive resistance, types of G.B construction & working of constant mesh G.B., & synchromesh G.B.,	3	Google Classroom/vcs/youtube
2.3	Final drive- necessity, construction & working of propeller shaft & differential.	3	Google Classroom/vcs/youtube
2.4	Axle- Type of rear axles, front axles & their applications	3	Google Classroom/vcs/youtube
Classl Test		1	GOOGLE FORM
<b>Unit-03 :- Control Systems</b>			

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Sl. No.	Topic Coved	Duration required in hrs.	Platform
3.1	Steering system- Requirement of steering system	2	Google Classroom/vcs/youtube
	Construction and working of steering linkage	1	Google Classroom/vcs/youtube
	. Steering gear box- construction & working of rack and pinion & re-circulating ball type gearbox	1	Google Classroom/vcs/youtube
	Introduction to Power steering, Steering geometry- camber, caster, toe-in, toe-out, Kingpin inclination & their	2	Google Classroom/vcs/youtube
3.2	Brake system- construction & working of hydraulic & Pneumatic brakes.	3	Google Classroom/vcs/youtube
	Classl Test	1	GOOGLE FORM
<b>Unit-04 :-</b>	<b>Suspension systems, wheels &amp; Tyres-</b>		
Sl. No.	Topic Coved	Duration required in hrs.	Platform
4.1	Necessity & classification of suspension system.	1	Google Classroom/vcs/youtube
4.2	Working & construction of Leaf spring, rigid axle suspension.	1	Google Classroom/vcs/youtube
4.3	Introduction to air suspension	1	Google Classroom/vcs/youtube
4.4	Construction & working of McPherson & wishbone, trailing link suspensions.	1	Google Classroom/vcs/youtube
4.5	Construction & working of telescopic shock absorbers.	1	Google Classroom/vcs/youtube
4.6	Construction & working of spoked wheel, disc wheel & light alloy cast wheel.	1	Google Classroom/vcs/youtube
4.7	Types of rims, their construction & working.	1	Google Classroom/vcs/youtube

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4.8	Construction, working & comparison of radial, cross-ply and tubed, tubeless tyre & tyre specifications	1	Google Classroom/vcs/youtube
4.9	Wheel Alignment and Balancing	1	Google Classroom/vcs/youtube
Classl Test		1	GOOGLE FORM
<b>Unit-05 :- Automobile Electrical Systems &amp; Body</b>			
Sl. No.	Topic Coved	Duration required in hrs.	Platform
5.1	Battery- working, construction & rating of battery	2	Google Classroom/vcs/youtube
5.2	Ignition system- construction & working of electronic and CDI ignition system	2	Google Classroom/vcs/youtube
5.3	Starting system- construction & working of starting motor.	2	Google Classroom/vcs/youtube
5.4	Charging system- construction & working of alternator	2	Google Classroom/vcs/youtube
5.5	Wiring system-harnessing & colour codes.	2	Google Classroom/vcs/youtube
5.6	Lighting system-head light, tail light, indicator light & their circuits.	2	Google Classroom/vcs/youtube
5.7	Gauges- construction & working of Fuel level gauge, oil gauge and water temperature gauge	3	Google Classroom/vcs/youtube
Classl Test		1	GOOGLE FORM