



NILASAILA INSTITUTE OF SCIENCE & TECHNOLOGY
SERGARH-756060, BALASORE (ODISHA)
(Approved by AICTE& affiliated to SCTE&VT, Odisha)



LESSON PLAN

SUBJECT: Th-2 (AUTOMOTIVE TRANSMISSION)

Name Of The Faculty :- Er. Nihar Ranjan Sahoo

Branch :- Automobile Engineering

Session :- 2024-25


Semester :- 5th

Examination :- 2024 (w)

CHAPTER WISE DISTRIBUTION OF PERIODS

Sl.No.	Name of the chapter as per the Syllabus	No. of Periods as per the Syllabus	No. of periods actually needed
1	Clutch	8	10
2	Gear Box	8	12
3	Propeller Shaft	8	8
4	Differential	8	8
5	Rear Axle	8	9
6	Two Wheeler	8	8
7	Performance of automobile	12	13
	Total Period:	60	68

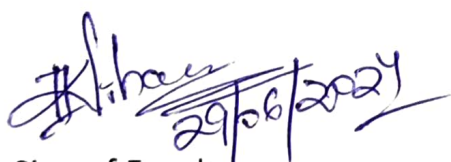

Sign of Faculty



Sign of H.O.D. 29/06/24

Discipline: AUTOMOBILE ENGINEERING	Semester: 5th	Name of the Teaching Faculty: Er. Nihar Ranjan Sahoo	
		SESSION : 2024-25	EXAMINATION : 2024 (W)
Week	Class Day	Topics to be Covered	
1 st	1 st	Introduction to AUTOMOTIVE TRANSMISSION .	
	2 nd	1. Clutch 1.1 Introduction, requirement of clutch, types of clutch.	
	3 rd	1.1 Introduction, requirement of clutch, types of clutch.	
	4 th	Types of clutch	
2 nd	1 st	1.2 Clutch operation.	
	2 nd	1.3 Clutch components, clutch facing.	
	3 rd	1.3 Clutch components, clutch facing.	
	4 th	1.4 Clutch problem & adjustment.	
3 rd	1 st	1.4 Clutch problem & adjustment.	
	2 nd	1.5 Fluids fly wheel & coupling.	
	3 rd	1.5 Fluids fly wheel & coupling.	
	4 th	2. Gear Box 2.1 Introduction, functions & types of transmission.	
4 th	1 st	2.1 Introduction, functions & types of transmission.	
	2 nd	2.2 Sliding mesh & constant mesh gear box.	
	3 rd	2.2 Sliding mesh & constant mesh gear box.	
	4 th	2.2 Sliding mesh & constant mesh gear box.	
5 th	1 st	2.3 Epicyclic gear box over drive.	
	2 nd	2.3 Epicyclic gear box over drive.	
	3 rd	2.3 Epicyclic gear box over drive.	
	4 th	2.4 Free-wheel drive, selector mechanism.	
6 th	1 st	2.4 Free-wheel drive, selector mechanism.	
	2 nd	2.5 Fluid torque converter.	
	3 rd	2.5 Fluid torque converter.	
	4 th	3. Propeller shaft 3.1 Introduction definition & types of propeller shaft.	
7 th	1 st	3.1 Introduction definition & types of propeller shaft.	

Week	Class Day	Topics to be Covered
7 th	2 nd	3.1 Introduction definition & types of propeller shaft.
	3 rd	3.2 Universal joints & its types.
	4 th	3.2 Universal joints & its types.
8 th	1 st	3.2 Universal joints & its types.
	2 nd	3.3 Sliding joint.
	3 rd	3.3 Sliding joint.
	4 th	4. Differential 4.1 Function of differential gear box.
9 th	1 st	4.1 Function of differential gear box.
	2 nd	4.2 Types of differential.
	3 rd	4.2 Types of differential.
	4 th	4.3 Constructional details of a differential.
10 th	1 st	4.3 Constructional details of a differential.
	2 nd	4.4 Study & inspection of differential.
	3 rd	4.4 Study & inspection of differential.
	4 th	5. Rear Axle 5.1 Definition of rear axle, supporting of rear axle.
11 th	1 st	5.1 Definition of rear axle, supporting of rear axle.
	2 nd	5.2 Rear axle drives such as Hotchkiss drive, torque tube drive etc.
	3 rd	INTERNAL ASSESMENT
	4 th	INTERNAL ASSESMENT
12 th	1 st	5.2 Rear axle drives such as Hotchkiss drive, torque tube drive etc.
	2 nd	5.2 Rear axle drives such as Hotchkiss drive, torque tube drive etc.
	3 rd	5.3 Types of rear axle.
	4 th	5.3 Types of rear axle.
13 th	1 st	5.4 Rear axle casing.
	2 nd	5.4 Rear axle casing.
	3 rd	6. Two wheeler 6.1 Power transmission system of moped.
	4 th	6.1 Power transmission system of moped.
14 th	1 st	6.2 Power transmission system of scooter.

Week	Class Day	Topics to be Covered
14 th	2 nd	6.2 Power transmission system of scooter.
	3 rd	6.3 Power transmission system of motor cycle.
	4 th	6.3 Power transmission system of motor cycle.
15 th	1 st	6.4 Power transmission system of bullet.
	2 nd	6.4 Power transmission system of bullet.
	3 rd	7. Performance of Automobile 7.1 Power for propulsion resistances for vehicle.
	4 th	7.1 Power for propulsion resistances for vehicle.
16 th	1 st	7.2 Traction & tractive effort, road performance curves.
	2 nd	7.2 Traction & tractive effort, road performance curves.
	3 rd	7.2 Traction & tractive effort, road performance curves.
	4 th	7.3 Acceleration gradiability & draw-bar pull.
17 th	1 st	7.3 Acceleration gradiability & draw-bar pull.
	2 nd	7.3 Acceleration gradiability & draw-bar pull.
	3 rd	7.4 Calculation of equivalent weight.
	4 th	7.4 Calculation of equivalent weight.
18 th	1 st	7.4 Calculation of equivalent weight.
	2 nd	7.5 Calculation of maximum traffic effort.
	3 rd	7.5 Calculation of maximum traffic effort.
	4 th	Revision .


29/06/2024
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