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

LESSON PLAN

SUBJECT: Th-2 (AUTOMOTIVE TRANSMISSION)

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	9
2	Gear Box	8	11
3	Propeller Shaft	8	8
4	Differential	8	8
5	Rear Axle	8	8
6	Two Wheeler	8	8
7	Performance of automobile	12	12
	Total Period:	60	64

Discipline: AUTOMOBILE ENGINEERING	Semester: 5th	**Name of the Teaching Faculty:** Er. Nihar Ranjan Sahoo
		SESSION : 2023-24 **EXAMINATION :** 2023 (W)
Week	**Class Day**	**Theory / Practical Topics**
1st	**1st**	Introduction to AUTOMOTIVE TRANSMISSION .
	2nd	**1. Clutch** 1.1 Introduction, requirement of clutch, types of clutch.
	3rd	Types of clutch
	4th	1.2 Clutch operation.
2nd	**1st**	1.3 Clutch components, clutch facing.
	2nd	1.3 Clutch components, clutch facing.
	3rd	1.4 Clutch problem & adjustment.
	4th	1.4 Clutch problem & adjustment.
3rd	**1st**	1.5 Fluids fly wheel & coupling.
	2nd	1.5 Fluids fly wheel & coupling.
	3rd	**2. Gear Box** 2.1 Introduction, functions & types of transmission.
	4th	2.2 Sliding mesh & constant mesh gear box.
4th	**1st**	2.2 Sliding mesh & constant mesh gear box.
	2nd	2.2 Sliding mesh & constant mesh gear box.
	3rd	2.3 Epicyclic gear box over drive.
	4th	2.3 Epicyclic gear box over drive.
5th	**1st**	2.3 Epicyclic gear box over drive.
	2nd	2.4 Free-wheel drive, selector mechanism.
	3rd	2.4 Free-wheel drive, selector mechanism.
	4th	2.5 Fluid torque converter.
6th	**1st**	2.5 Fluid torque converter.
	2nd	**3. Propeller shaft** 3.1 Introduction definition & types of propeller shaft.
	3rd	3.1 Introduction definition & types of propeller shaft.

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

13th	**3rd**	6.2 Power transmission system of scooter.
	4th	6.3 Power transmission system of motor cycle.
14th	**1st**	6.3 Power transmission system of motor cycle.
	2nd	6.4 Power transmission system of bullet.
	3rd	6.4 Power transmission system of bullet.
	4th	**7. Performance of Automobile** 7.1 Power for propulsion resistances for vehicle.
15th	**1st**	7.1 Power for propulsion resistances for vehicle.
	2nd	7.2 Traction & tractive effort, road performance curves.
	3rd	7.2 Traction & tractive effort, road performance curves.
	4th	7.2 Traction & tractive effort, road performance curves.
16th	**1st**	7.3 Acceleration gradiability & draw-bar pull.
	2nd	7.3 Acceleration gradiability & draw-bar pull.
	3rd	7.4 Calculation of equivalent weight.
	4th	7.4 Calculation of equivalent weight.
17th	**1st**	7.4 Calculation of equivalent weight.
	2nd	7.5 Calculation of maximum traffic effort.
	3rd	7.5 Calculation of maximum traffic effort.
	4th	Revision .