SUDDHANANDA ENGINEERING AND RESEARCH CENTER, BBSR

LESSON PLAN- 6TH SEMESTER (2022-2023)

SUBJECT:- AUTOMOBILE ENGINEERING AND HYBRID VEHICLES (TH.2)

NAMEOFTHEFACULTY:- P.K. Behera

MONTH	CHAPTER /UNIT	COURSETOBE COVERED	CLASSES REQUIRED	REMARKS(IF ANY)
	Chapter-1	**INTRODUCTION&TRANSMISSIONSYSTEM**	**12**	
	1.1	Automobiles:Definitions,needandclassification:Layoutof automobile chassis with major components (Line diagram)	2	
	1.2	ClutchSystem:Need,Types(Single&Multiple)andworking principlewithsketch	2	
	1.3	Gear Box: Purpose of gear box, Construction and working ofa 4 speed gear box	2	
	1.4	Conceptofautomaticgearchangingmechanics	2	
	1.5	Propellershaft:Constructionalfeatures	2	
	1.6	Differential:Need,TypesandWorkingprinciple	2	
	Chapter-2	**BRAKINGSYSTEM**	**05**	
	2.1	Brakingsystemsinautomobiles:Needandtypes	1	
	2.2	MechanicalBrake	1	
	2.3	HydraulicBrake		
	2.4	AirBrake	1	
	2.5	AirassistedHydraulic Brake	1	
	2.6	VacuumBrake	1	
	Chapter-3	**IGNITION&SUSPENSIONSYSTEM**	**10**	
	3.1	DescribetheBatteryignitionandMagnetignitionsystem	2	
	3.4	Description of the conventional suspension system for Rear and Front axle	2	
	3.6	Constructionalfeaturesandworkingofatelescopicshock absorber	2	
	Chapter-4	**COOLINGANDLUBRICATION**	**8**	
	4.1	Enginecooling:Needandclassification	2	
	4.2	Describedefectsofcoolingandtheirremedialmeasures	2	
	4.3	DescribetheFunctionoflubrication	2	
	4.4	DescribethelubricationSystemI.C.engine	2	
	Chapter-5	**FUELSYSTEM**	**10**	
	5.1	DescribeAirfuelratio	1	
	5.2	DescribeCarburetionprocessforPetrolEngine	2	
	5.3	DescribeMultipointfuelinjectionsystemforPetrolEngine	2	

	5.4	Describetheworkingprincipleof fuelinjectionsystemfor multi cylinder Engine	2	
	5.5	FilterforDieselengine	1	
	5.6	DescribetheworkingprincipleoffuelfeedpumpandFuel Injector for Diesel Engine	2	