PSIET, KARANDA,DHENKANAL

LESSONPLAN

Session(2022-2023)

Discipline: MechanicalEngg.	**Semester:**6th, Summer/2023	**Nameofthe Faculty:** Sushant Kumar Pradhan,Lecturer
Subject: Automobile EngineeringandHybrid Vehicle	**NoofDays/week:** 04	**StartDate:**15/02/2023 **EndDate:**23/05/2023

Week	ClassDay	TheoryTopics
1st	1st	Automobiles:Definition,needandclassification
	2nd	Layoutofautomobilechassiswithmajorcomponents(Line diagram)
	3rd	ClutchSystem:Need, Types(Single&Multiple)
	4th	Workingprinciplewithsketch: Different typesofclutches.
2nd	1st	GearBox:Purposeofgearbox,Types
	2nd	Constructionand workingofa4 speed gearbox
	3rd	Conceptofautomaticgear changingmechanisms
	4th	Propellershaft:Constructionalfeaturesandworking
3rd	1st	Differential:Need,TypesandWorkingprinciple
	2nd	Workingofdifferentialof4-wheeler
	3rd	Reviewclass
	4th	PracticeTest/&Assignment
4th	1st	Brakingsystemsinautomobiles:Needandtypes
	2nd	MechanicalBrakes
	3rd	HydraulicBrake
	4th	AirBrakeandVacuumBrake
5th	1st	AirassistedHydraulicBrake
	2nd	QuizTest
	3rd	Assignment Evaluation&ClassTest
	4th	Batteryignitionsystem:Schematicdiagram,elementsand
		working

6th	1st	Magnetignitionsystem:Schematicdiagram,elementsand working
	2nd	Sparkplugs:Purpose,constructionandspecifications
	3rd	Commonignitiontroublesanditsremedies
	4th	Conventionalsuspensionsystemfor RearandFrontaxle
7th	1st	Independent suspensionsystemused incars(coilspringand tension bars)
	2nd	Constructionalfeaturesandworkingofatelescopicshock absorber
	3rd	PracticeTest/&Assignment
	4th	Enginecooling:Needandclassification
8th	1st	CoolingsystemsofICengine
	2nd	Defectsofcooling andtheirremedialmeasures
	3rd	Enginelubrication:Needandclassification
	4th	DescribetheLubricationSystemofI.C.engine
9th	1st	Reviewclass
	2nd	CarburetionprocessforPetrolEngine
	3rd	FuelsforAutomobiles,FuelProperties
	4th	Airfuelratio,Carburettor
10th	1st	Multipointfuelinjectionsystemfor PetrolEngine
	2nd	Airfuelratio ofdieselengine.FilterforDieselengine
	3rd	ElementsoffuelinjectionsystemofDieselengine
	4th	Workingprincipleoffuelinjectionsystemformulticylinder Engine
11th	1st	PrincipleofFuelfeedpumpandFuelInjectorforDieselengine
	2nd	IntroductiontoElectricandHybrid vehicles
	3rd	SocialandEnvironmentalimportanceofHybridandElectric Vehicles
	4th	DescriptionofElectricVehicles,operationaladvantages
12th	1st	PresentperformanceandapplicationsofElectricVehicles
	2nd	BatteryforElectricVehicles,Batterytypesandfuelcells
	3rd	Hybridvehicles,TypesofHybridandElectricVehicles
	4th	Parallel,Series,ParallelandSeriesconfigurations
15th	1st	Drivetrain
	2nd	Solarpowergenerationanditsapplicationfor automobiles

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Signature of the faculty

Signature of the Principal