

Lesson Plan

Name of the Faculty : Amit Kumar Gupta(Theory & Practical)

Discipline : Mechanical Engg.

Semester : 4th

Subject : I.C.Engines

Lesson Plan Duration : 15 weeks(From Januauy 2018 to April 2018)

WEEK	Theory		Practical	
	Lecture day	Topic	Practical Day	Topic
1st	1st	Unit 1 : IC Engines -introduction	1st	1. study of a two stroke engine using cut section model. Note the funcionand material of each part.
	2nd	Working principle of two stroke and four stroke cycle		
	3rd	SI and CI engines		
2nd	1st	location and functions of various parts of ic engines andmaterial used them	2nd	2. study of a four stroke engine using cut section model. Note the funcion of each part.
	2nd	conectp of ic engine terms-bore ,stroke,dead centre,crank throw,copression ratio,piston displacement,piston speed		
	3rd	otto cycle with numerical		
3rd	1st	diesel cycle with numerical	3rd	3.study of battery ignition system of a multicylinder petrol engine stressing ignition timing,setting,fixing order,and contact breaker gap adjustment
	2nd	dual cycle with numerical		
	3rd	problem solving class		
4th	1st	Unit 2 : Fuel supply in petrol engine -introduction	4th	4.study of cooling of IC engine.
	2nd	concept of carburetion		
	3rd	air fuel raio		
5th	1st	simple carburettor and its application	5th	5.Study of Lubricating system of IC engine
	2nd	MPFI and common rail system		
	3rd	super charging & turbocharger		
6th	1st	problem solving class	6th	6.Determination of BHP by dynamometer
	2nd	test and assignment		
	3rd	Unit 3 : Fuel supply of diesel engine -introduction		
7th	1st	components of fuel system	7th	7.Morse test on multicylinder petrol engine.
	2nd	description and working of fuel feed pump		
	3rd	fuel injection pump		
8th	1st	injectors	8th	8. Local visit to roadways or private automobile workshop
	2nd	problem solving class		
	3rd	Unit 4 : Ignition system of ic engine -introduction		

9th	1st	battery coil ignition system	9th	1. study of a two stroke engine using cut section model. Note the function and material of each part.
	2nd	magneto coil ignition system		
	3rd	electronic ignition system		
10th	1st	fault finding & remedial action in ignition system	10th	2. study of a four stroke engine using cut section model. Note the function of each part.
	2nd	problem solving class		
	3rd	test and assignment		
	1st	Unit 5: Cooling & lubrication- introduction	11th	3. study of battery ignition system of a multicylinder petrol engine stressing ignition timing, setting, fixing order, and contact breaker gap adjustment
	2nd	function of cooling system in ic engine		
	3rd	air cooling & water cooling, use of thermostat		
12th	1st	radiator and forced circulation in water cooling system	12th	4. study of cooling of IC engine.
	2nd	function of lubrication		
	3rd	types and properties of lubricant		
13th	1st	lubrication system of ic engine	13th	5. Study of Lubricating system of IC engine
	2nd	fault finding & remedial action in cooling & lubrication system		
	3rd	Unit 6: Testing of ic engine- indicated & brake power, mech. Thermal relative and volumetric efficiency		
14th	1st	Methods of finding indicated & brake power	14th	6. Determination of BHP by dynamometer
	2nd	morse test & heat balance sheet		
	3rd	concept of pollutants in SI & CI engine, pollution control, norms for 4 wheeler bis I, II, III, IV		
15th	1st	methods of reducing pollution in ic engines, fuels cng lpg	15th	7. Morse test on multicylinder petrol engine.
	2nd	numericals & problem solving		
	3rd	test and assignment		