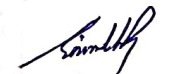


SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

Discipline: Mechanical	Semester: 3rd	Name of the Teaching Faculty: Soumikh Roy
Subject: TE I	No of Days/per week class allotted:	Semester from Date: 01/07/2024 to Date: 31/07/2024 No of Weeks: 05
Week	Class Day	Theory/Practical Topics
1st	1st	Thermodynamic Systems explanation
	2nd	Closed thermodynamic Systems
	3rd	Open thermodynamic Systems
	4th	Difference between open & closed system
	5th	Isolated thermodynamic Systems
2nd	1st	Explanation on Thermodynamic properties of a system
	2nd	Study Thermodynamic properties Pressure & volume,
	3rd	Study Thermodynamic properties temperature & entropy
	4th	Different methods for measurement of thermodynamic properties
	5th	Numerical on different thermodynamic properties
3rd	1st	Enthalpy and its unit of measurement
	2nd	Internal energy and its unit of measurement
	3rd	Comparison between Internal energy and total energy of a system
	4th	Study the formula of Enthalpy and its numericals
	5th	Study the methods of energy transfer in thermodynamics
4th	1st	Study Intensive properties
	2nd	Study extensive properties
	3rd	Difference between Intensive and extensive properties
	4th	Define thermodynamic processes
	5th	Define thermodynamic path
5th	1st	Define thermodynamic cycle
	2nd	Study differences between reversible & non reversible process
	3rd	Study on examples of reversible & non reversible process
	4th	
	5th	


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SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

Discipline: Mechanical Engg	Semester: 3rd	Name of the Teaching Faculty: Soumikh Roy
Subject: TE 1	No of Days/per week class allotted:	Semester from Date: 01/08/2024 to Date: 31/08/2024 No of Weeks: 05
Week	Class Day	Theory/Practical Topics
1st	1st	Define state function
	2nd	Define path function
	3rd	Define point function
	4th	
	5th	
2nd	1st	Study Thermodynamic Equilibrium
	2nd	Study Thermodynamic Equilibrium (Continue)
	3rd	Quasi-static Process
	4th	Practical examples of Quasi-static Process
	5th	Mechanical Equilibrium.
3rd	1st	Heat and work transfer
	2nd	Conceptual explanation of energy and its sources
	3rd	Work , heat and comparison between the two
	4th	Mechanical Equivalent of Heat
	5th	Study Work transfer
4th	1st	Study Displacement work
	2nd	State Zeroth law of thermodynamics
	3rd	explain Zeroth law of thermodynamics
	4th	State First law of thermodynamics
	5th	Derivation of First law of thermodynamics
5th	1st	Explain First law of thermodynamics
	2nd	Numerical on First law of thermodynamics
	3rd	Limitations of First law of thermodynamics
	4th	Application of Steady flow energy equation
	5th	Steady flow energy equation


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Lesson Plan
Discipline: Me
Subject: TF
Need

SYNERGY POLYTECHNIC, BBSR

Lesson Plan

Discipline: Mechanical Engg	Semester: 3rd	Name of the Teaching Faculty: Soumikh Roy
Subject: TE 1	No of Days/per week class allotted:	Semester from Date: 01/09/2024 to Date: 30/09/2024 No of Weeks: 04
Week	Class Day	Theory/Practical Topics
1st	1st	Second law of thermodynamics
	2nd	Numerical on Second law of thermodynamics
	3rd	Difference between Refrigerators and Heat pumps
	4th	Numerical on Refrigerators
	5th	Study heat engine
2nd	1st	Second law of thermodynamics
	2nd	Application of second law of thermodynamics
	3rd	Numerical on second law of thermodynamics
	4th	Derivation of second law of thermodynamics
	5th	Derivation of second law of thermodynamics (Continue)
3rd	1st	Study heat pump
	2nd	Study and unit of Refrigerator
	3rd	Study efficiencies & C.O.P of Refrigerator
	4th	Numerical on Refrigerator
	5th	Numerical on Heat pump
4th	1st	Study Laws of perfect gas
	2nd	Study Boyle's law
	3rd	Study Charle's law
	4th	Study Gay lussac law
	5th	Study Avogadro's law
5th	1st	Study Dalton's law
	2nd	
	3rd	
	4th	
	5th	


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SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

Discipline: Mechanical Engg	Semester: 3rd	Name of the Teaching Faculty: Soumikh Roy
Subject: TE 1	No of Days/per week class allotted:	Semester from Date: 01/10/2024 to Date: to 31/10/2024 No of Weeks: 05
Week	Class Day	Theory/Practical Topics
1st	1st	Explain specific heat of gas (Cp and Cv)
	2nd	Relation between Cp & Cv
	3rd	Numerical on Cp & Cv
	4th	Work done during a non- flow process
	5th	Isothermal, Isobaric, Isentropic and polytropic process
2nd	1st	Study the Free expansion
	2nd	Study the throttling process
	3rd	PUJA HOLIDAY
	4th	PUJA HOLIDAY
	5th	PUJA HOLIDAY
3rd	1st	PUJA HOLIDAY
	2nd	PUJA HOLIDAY
	3rd	PUJA HOLIDAY
	4th	Enthalpy of a gas
	5th	Study C.I & S.I engine
4th	1st	Explain I.C engine
	2nd	classify Internal combustion engine
	3rd	Study bore of ic Engine
	4th	Study dead centers
	5th	Study stroke volume
5th	1st	Study piston speed & RPM
	2nd	2-stroke & 4- stroke engine
	3rd	Study C.I & S.I engine
	4th	Difference 2-stroke & 4- stroke engine
	5th	


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Lesson Plan
Subject: Mechanical
Subject: TE 1
Week

SYNERGY POLYTECHNIC, BBSR

Lesson Plan

Discipline: Mechanical Engg	Semester: 3rd	Name of the Teaching Faculty: Soumikh Roy
Subject: TE 1	No of Days/per week class allotted:	Semester from Date: 01/11/2024 to Date: 30/11/2024 No of Weeks:
Week	Class Day	Theory/Practical Topics
1st	1st	Study PV Diagram
	2nd	Study TS Diagram
	3rd	
	4th	
	5th	
2nd	1st	Study Carnot cycle
	2nd	Derivation of Carnot cycle
	3rd	Study Otto cycle
	4th	Derivation of Otto cycle
	5th	Numerical on Otto cycle
3rd	1st	Study Diesel cycle
	2nd	Numerical on Diesel cycle
	3rd	Study Dual cycle
	4th	Numerical on Dual cycle
	5th	Define Fuel
4th	1st	Types of fuel
	2nd	Application of different types of fuel
	3rd	Heating values of fuel
	4th	Quality of I.C engine fuels
	5th	Octane number
5th	1st	Cetane number
	2nd	Sample paper practice
	3rd	Sample paper practice
	4th	Sample paper practice
	5th	Sample paper practice


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