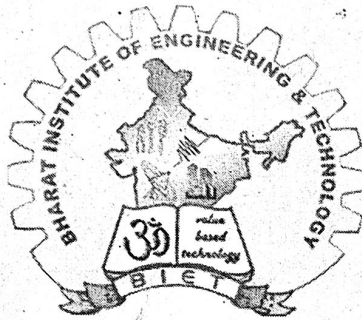


BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

**SIVARAM VIHAR, GHATAKESWAR HILLS
MOHADA, BERHAMPUR (GM.)**



STUDENT'S ATTENDANCE REGISTER

Time	Day				
		9:15			
	Mon	✓			
	Tue	✓			
	Wed	✓			
	Thu	●			
	Fri				
	Sat	✓			

Year/ Session : 2023 (winter)	Semester from Date: 01/08/2023 To Date : 30/11/2023
Semester & Branch	3 rd sem @ Mechanical
Subject with Code	Thermal Engg ⁿ - Th-4
Name of the Faculty Member	Satyanarayan Pradhan
No of Weeks:	No of Days per Week class Allotted :

B.I.E.T., COURSE PLAN

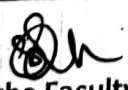
Month	Week	Class Day	Theory/Practical Topic
A U g u S T			Thermodynamic concept & Terminology
		2.8.23	→ thermodynamic system (closed, open, isolated)
		3.8.23	→ Thermodynamics properties of a system (pressure, volume, temperature, entropy, enthalpy, internal energy and units of measurement.)
		5.8.23	
		7.8.23	→ Intensive and extensive properties
		9.8.23	→ Define thermodynamic process, path, cycle, state, path function, point function
		10.8.23	→ Thermodynamic equilibrium
		12.8.23	→ Quasi static process
		14.8.23	→ Conceptual explanation of energy and its sources

Signature of the Faculty:

Signature of the Principal/Course Co-ordinator/HOD:

B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
		16.8.23 17.8.23	→ work, Heat and a compression between the two
		19.8.23	→ Mechanical equivalent of heat
		21.8.23	→ work transfer, displacement work
			• Laws of thermodynamics
		23.8.23 24.8.23	→ State, explain Zeroth law of thermodynamics
		26.8.23 28.8.23	→ State, explain first law of thermodynamics
		31.8.23 2.9.23	→ Limitation of first law of thermodynamics
September		5.9.23 6.9.23	→ Application of first law of thermodynamics (Steady flow energy equation)



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B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
S			and its application to turbine and compressor)
F		9.9.23	→ Second law of thermodynamics (Clausius & Kelvin plank statement)
P		10.9.23	
T		13.9.23	→ Application of first law in heat engine, heat pump, refrigerator & determination of efficiencies & C.O.P (solve simple numerical)
F		14.9.23	
m			② properties process of perfect gas
b			
F			→ Laws of perfect gas:- Boyle's law; Charles's law, Avogadro's law, Dalton's law of partial pressure, Gay Lussac's law, General gas equation, Characteristics gas constant.
R		16.9.23	
		18.9.23	

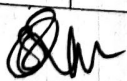
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Signature of the Faculty:

Signature of the Principal/Course Co-ordinator/HOD:

B.I.E.T., COURSE PLAN

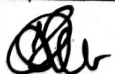
Month	Week	Class Day	Theory/Practical Topic
			<ul style="list-style-type: none"> ① Universal gas constant
		21.9.23	→ Explain specific gas heat of gas
		23.9.23	→ Relation between c_p & c_v
		25.9.23	→ Enthalpy of a gas
		27.9.23	→ work done during a non flow process
		28.9.23	→ Application of first law of thermodynamics to various non flow process
		30.9.23	⇒ (isothermal, isobaric, and polytropic process)
October		1.10.23	→ solve simple problem and above
		5.10.23	→ Free expansion & throttling process


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B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
O C T O B E R			4 Internal combustion engine
		7.10.23	→ Explain classify I.C engine
		9.10.23	
		11.10.23	→ Terminology of I.C such as
		12.10.23	bone dead centers stroke Volume, piston speed & RPM
		16.10.23	→ Explain the working principal of 2 stroke & 4-stroke
		17.10.23	engine CI & S.I engine
		18.10.23	→ Differential between 2 stroke & 4-stroke CI & S.I engine
		19.10.23	
		30.10.23	4 Gas power cycle
		1.11.23	→ Carnot cycle
		2.11.23	→ Otto cycle
		4.11.23	→ Diesel cycle
		6.11.23	→ Dual cycle
		8.11.23	→ Solve simple numerical
	9.11.23		
	11.11.23		
	13.11.23		
	15.11.23		




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B.I.E.T., COURSE PLAN

Month	Week	Class Day	Theory/Practical Topic
	Ni	16.11.23	Fuels and combustion → D.I engine fuel
	O	18.11.23	→ types of fuel
	V	20.11.23	
	E	22.11.23	→ Application of different types of fuel
	M	23.11.23	
	B	25.11.23	→ Heating values of fuel
	A	29.11.23	→ Quality of I.C engine fuels octane number, cetane number
		30.11.23	

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