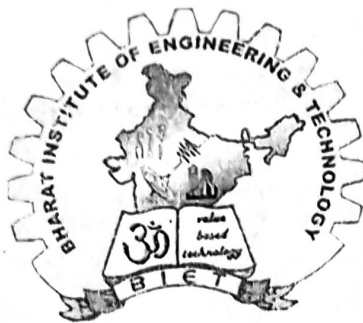


BHARAT INSTITUTE OF ENGINEERING & TECHNOLOGY

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



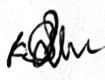



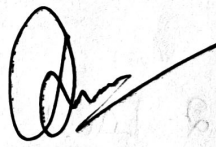




STUDENT'S ATTENDANCE REGISTER

Time	9:05 to 9:55			1:55	
Day	9:55			2:45	
M	✓				
W				✓	
Th				✓	
S				✓	

Year/ Session	W - 22	15.9.22 to 22.12.22
Semester & Branch	3 rd Sem Mechanical Engn	
Subject with Code	(Th-4) Thermal Engineering	
Name of the Faculty Member	En. Satyanarayana Pradhan	

B.I.E.T.





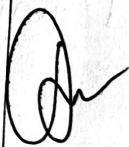




SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
1. <u>Thermodynamic concept & terminology</u> :-			
1.1. Thermodynamic systems (closed, open, isolated).	15.9.22		
1.2. Thermodynamic Properties of a system (pressure, volume, temperature entropy, enthalpy, internal energy and units of measurement).	19.9.22		
	21.9.22		
1.3. Intensive and extensive properties.	22.9.22		
1.4. Define thermodynamic Process, Path, cycle, state, Path Junction, Point function.	24.9.22		
	26.9.22		
1.5. Thermodynamic Equilibrium.	28.9.22		
1.6. Quasi - static Process.	29.9.22		












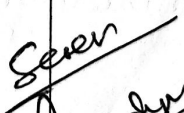
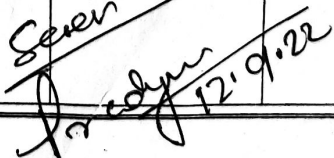
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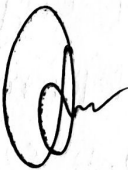


TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE THE H.O
1.7. Conceptual explanation of energy and its sources.	12.10.22		
1.8. Work, heat and comparison between the two.	13.10.22		
1.9. mechanical equivalent of heat.	15.10.22		
1.10. work transfer, Displacement work.	17.10.22		
2. <u>Laws of thermodynamics</u> :-			
2.1. State & explain zeroth law of thermodynamics.	19.10.22		
2.2. State & explain first law of thermodynamics.	20.10.22		
2.3. Limitations of first law of thermodynamics.	22.10.22		
2.4. Application of first law of	26.10.22		

B.I.E.T. SYLLABUS COVERAGE


TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
thermodynamics, (steady flow energy equation and its application to turbine and compressor).	27.10.22		
2.4. Second law of thermodynamics (Clausius & Kelvin Planck statements).	29.10.22		
	31.11.22		
	1.11.22		
2.5. Application of second law in heat engine, heat pump, refrigerator & determination of efficiencies & C.O.P (solve simple numerical).	3.11.22		
	5.11.22		
	7.11.22		
<u>3. Properties Process of Perfect gas :-</u>			
3.1. Laws of Perfect gas :	9.11.22		
Boyle's law, Charles's law, Avogadro's law, Dalton's law of Partial Pressure; Guy Lussac law, General gas equation, characteristic gas constant, universal gas constant.	10.11.22		
	12.11.22		
	12.11.22		
			

B.I.E.T.



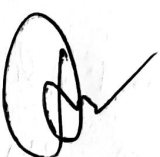
SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE THE H.O.D
3.2. Explain specific heat of gas (cp and cv).	14.11.22		
3.3. Relation between cp & cv.	16.11.22		
3.4. Enthalpy of a gas.	17.11.22		
3.5. Work done during a non-flow process.	19.11.22		
3.6. Application of first law of thermodynamics to various non flow process (isothermal, isobaric, isentropic and polytropic process)	21.11.22		
3.6. Solve simple problems on above	23.11.22		
3.7. Free expansion & throttling process.	24.11.22		
4. <u>Internal combustion engine</u> :-			

B.I.E.T. SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE OF THE H.O.D.
4.1. Explain & classify I.C engine.	26.11.22 28.11.22	n	
4.2. Terminology of I.C Engine such as bore, dead centre, stroke volume, piston speed & RPM.	30.11.22 1.12.22		
4.3. Explain the working principle of 2-stroke & 4-stroke engine C.I & S.I engine.	3.12.22 5.12.22	S	
4.4. Differentiate between 2-stroke & 4-stroke engine C.I & S.I engine.	7.12.22	S	
	8.12.22	S	
5. <u>Gas Power cycle</u> :-			
5.1. Carnot cycle.	10.12.22 12.12.22	S	
5.2. Otto cycle.	14.12.22 15.12.22	S	
5.3. Diesel cycle.	17.12.22 19.12.22		
5.4. Dual cycle.	21.12.22 22.12.22		

B.I.E.T. SYLLABUS COVERAGE

TOPIC	DATE	SIGNATURE OF THE FACULTY	SIGNATURE THE H.O.
S.S. Solve simple numerical.	Extra dent		
<p><u>6. Fuels and Combustion</u> :-</p> <p>6.1. Define fuel.</p> <p>6.2. Types of fuel.</p> <p>6.3. Application of different types of fuel.</p> <p>6.4. Heating values of fuel.</p> <p>6.5. Quality of I.C. engine fuels octane number, Cetane number.</p>	E x t r a c u r s		
	<p>Seen Teacher 12.9.22</p>		