Government of the People's Republic of Bangladesh

Mymensingh Polytechnic Institute

Semester Plan

Power Technology

Subject: Engineering Thermodynamics

T	P	C
3	3	4

Subject Code:27131

3rd Semester (1st Shift)

Class Start : 14-01-2024

Week	Activity/Lesson	Teaching aids		Remark
		Theory	Practical	
01	**Theory:** Understand the Concepts of Thermodynamics **Practical:** Verify First Law of thermodynamics with I.C. Engine	White Board Marker Pen, Internet Connected Laptop & Multimedia Projector	Job Sheet	
02	**Theory:** Understand the Heat, Temperature and Pressure **Practical:** Demonstrate Verify First Law of thermodynamics with I.C. Engine	Do	Do	QT-1
03	**Theory:** Understand the Zeroth Law and First law of thermodynamics **Practical:**. Demonstrate Internal combustion (IC) engine components	Do	Do	CT-1
04	**Theory:** Understand the the Second law of thermodynamics **Practical:** Verify Second Law thermodynamics with I.C. Engine.	Do	Do	CT-2
05	**Theory:** Understand Internal energy and enthalpy of gases . **Practical:** Determine the mechanical equivalent of heat by Joule's apparatus cycle engine	Do	Do	
06	**Theory:** Understand the Thermodynamic processes of perfect gases **Practical:** Compare Otto and Diesel cycles	Do	Do	QT-2
07	Mid Term Examination			
08	**Theory:** Understand the Entropy of perfect gases **Practical:** Compare Otto and Diesel cycles	Do	Do	
09	**Theory:** Understand Steam and Vapor **Practical:** Observe Rankin cycle with a steam	Do	Do	QT-3
10	**Theory:** Understand the Thermodynamic cycles **Practica**l: Observe Rankin cycle with a steam			

	turbine model	Do	Do	
11	**Theory:** Understand Air standard cycles **Practical:** Demonstrate the 4-stroke Diesel Cycle with an engine	Do	Do	CT-3
12	**Theory:** 1.Vapor power cycles 2. Heat engine, refrigeration and heat pump **Practical:** Compare radiators, evaporators andcondensers of heat exchangers	Do	Do	QT-4
13	**Theory:** IC engines **Practcal:** Demonstrate the 4-stroke Otto Cycle with an engine	Do	Do	CT-4
14	**Theory:** 1.Boiler. 2. Heat transfer **Practical:** Demonstrate the heat transfer modes Conduction, convention and radiation with refrigerator	Do	Do	
15 & 16	**Semester Final Examination**			

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