

Department of Electrical Engineering

Mid term exam

Date: 24/08/2020

Course Details

Course Title: Thermodynamics

Module: 02

Instructor: _____

Total Marks: 30

Student Details

Name: _____

Student ID: _____

Q1.	(a)	Express the temperature of 140 °C on degree Fahrenheit, Rankine and Kelvin scales.	Marks 06 +05										
	(b)	Formulate the equation highlighting the work done by a gas or vapour in expanding for a constant temperature process.	CLO 1										
Q2.		<p>Analyze the given figure and match column 1 with the correct option of column 2.</p> <div style="text-align: center;"> </div> <table border="1" style="margin: 10px auto; width: 80%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%; text-align: center;">Column 1</th> <th style="width: 50%; text-align: center;">Column 2</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Process I</td> <td style="text-align: center;">Adiabatic</td> </tr> <tr> <td style="text-align: center;">Process II</td> <td style="text-align: center;">Isobaric</td> </tr> <tr> <td style="text-align: center;">Process III</td> <td style="text-align: center;">Isochoric</td> </tr> <tr> <td style="text-align: center;">Process IV</td> <td style="text-align: center;">Isothermal</td> </tr> </tbody> </table>	Column 1	Column 2	Process I	Adiabatic	Process II	Isobaric	Process III	Isochoric	Process IV	Isothermal	Marks 08 CLO 1
Column 1	Column 2												
Process I	Adiabatic												
Process II	Isobaric												
Process III	Isochoric												
Process IV	Isothermal												
Q3.	i.	Outline the differences between work and heat.	Marks 03+03										
	ii.	Describe the meaning of the term $\Delta Q = \Delta W$	CLO 1										
Q4.		Explain the process of throttling.	Marks 05 CLO 1										