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SNS College of Technology, Coimbatore-35.

(Autonomous)

B.E/B.Tech- Internal Assessment -III

Academic Year 2022-2023 (Odd Semester)

Third Semester

Aerospace Engineering

19ASB202– Aero Engineering Thermodynamics

Time: 1^{1/2} Hours

Maximum Marks: 50

B

Answer All Questions

PART - A (5x 2 = 10 Marks)

			CO	Blooms
1.		What is compressibility factor?	CO4	Und
2.		Define Dalton's law of partial pressure.	CO4	App
3.		State Charle's law.	CO4	Ana
4.		What do you mean by reduced properties?	CO5	Und
5.		What is Joule-Thomson coefficient?	CO5	Und
PART – B (13+13+14 =40 Marks)				
			CO	Blooms
6.	(a)	Explain about the mass fraction and mole fraction in gas mixtures.	13 CO4	Und
		(or)		
	(b)	Derive the Tds equation and enthalpy relation?	13 CO4	App
7.	(a)	30m ³ /min of moist air at 15°C DBT and 13°C WBT are mixed 12m ³ /min of moist air at 25°C DBT and 18°C WBT. Determine DBT and WBT of the mixture assuming barometric pressure is one atmosphere.	13 CO5	Eva
		(or)		
	(b)	Briefly explain about the working of air conditioning system.	13 CO5	Und
8.	(a)	Derive and explain the Maxwell relation.	14 CO4	App
		(or)		
	(b)	Explain the process involved in psychometry process.	14 CO5	Und

Abbreviations

Rem- Remember

App-Apply

Ana-Analyze

Eva-Evaluate

Cre-Create