

MGM's, Jawaharlal Nohru Engineering College, Aurangabad Mid Semester Examination - Sept-Oct. 2019 Course: S.y. B. Tech in Mechanical Engineering Subject Name: THERMODYNAMICS Max Marks: 20 Date: - Oct. 9, 2019 Instructions to the Students: 1. Use of scientific aclustance is permitted 2. Draw schematic diagrams whenever necessary 3. Assume suitable data if necessary 4. Mark one correct answer. Density of fluid is 2. Draw schematic diagrams whenever necessary 3. Assume suitable data if necessary 4. Mark one correct answer. Density of fluid is 3. Execusive property b) Intensive Property c) Path Function d) None of these COI a) Thermodynamic equilibrium b) Chemical Equilibrium c) Mechanical Equilibrium d) All of these 2. Thermodynamic temperature is constant Temperature d) Constant Entropy d) All of these 2. Thermodynamic temperature is represented as a) Constant Pressure b) Constant Volume c) Constant Pressure b) Constant	er's	CI	10	ICE		Т		_	-	:	_	Ė	-			ww	w	Fir	stF	Ran	ke	r.c	φm	-	, 	÷	wv	vw	.Fi	rst	Ra	nk	eric	on	1		1			-	-
MGM's, Jawaharlal Nehru Engineering College, Aurangabad Mid Semester Examination – SeptOct. 2019 Course: S.Y. B. Tech in Mechanical Engineering Subject Name: THERMODYNADICS Subject Name: THERMODYNADICS Subject Name: THERMODYNADICS Subject Name: THERMODYNADICS Subject Code: BT-MEC 305 Max Marks: 20 Date: - Oct. 9, 2019 Duration: - 1 Instructions to the Students: 1. Use of scientific calculator is permitted 2. Draw schematic diagrams whenever necessary 3. Assume suitable data if necessary 4. Mark one correct answer. Density of fluid is a) Extensive property b) Intensive Property c) Path Function d) None of these Density of fluid is a) Extensive property b) Intensive Property c) Path Function d) None of these Thermodynamic equilibrium is a) Extensive property b) Intensive Property c) Path Function d) None of these Sochoric Process involves 3. Choose the correct answer. Density of fluid is 4. Mark one correct answer for MCQs Choose the correct answer. Density of fluid is 5. Thermal Equilibrium b) Chemical Equilibrium c) Mochanical Equilibrium d) All of these Sochotic Process involves 5. Thermodynamic temperature in September of these in Constant Pensure d) Constant Entropy Kelvin-Plank statement states no heat engine exists a) Without Heat Gain b) Without Heat Rejection c) Without Work d) None of these Absolute thermodynamic temperature in September of Work of None of these Absolute thermodynamic temperature in September of System d) None of these Work and Heat transfers are a) State Function b) Path Function c) Properties of System d) None of these Work and Heat transfers are b) In an insulated Nozzle, entilate of Ozdo kJkg and velocity 100 m/s with elevation 0 m. This steam leaves the turbine at 20 kPa with enthalpy 2512 kJkg and velocity 33.3 m/s at elevation 0 f m. This steam leaves the turbine operates under steady flow conditions, receiving steam 1.2 MPa at 188 °C with enthalpy 255 kJkg and velocity 33.3 m/s at elevation of 3 m. This steam leaves the under area is 0.1 m² and specific volume at inlet is 0					(B)						E	0.3	3		(6)	9 3		02				Š		4		u			2		_	0.1									
Hr. CO2 CO2 CO2 CO3		velocity at exit of nozzle and mass flow rate through the nozzle.	the inlet area is 0.1 m° and specific volume at inlet is 0.187 m³/kg, determine the	while at the exit the enthalpy reduced to 2762 kJ/kg. The nozzle is kept horizontal. If	In an insulated Nozzle, enthalpy of fluid passing is 3000 kJ/kg and velocity is 60 m/s	turbine is 0.42 kg/s, what is the power output of the turbine in kW?	Heat is lost to the surrounding at the rate of 0.29 kJ/s. If the steam flow rate through the	The state of the s	the turbine at 20 kPa with enthalpy 2512 k1/kg and velocity 100 m/s with elevation 0 m	with enthalpy 2785 kJ/kg and velocity 33.3 m/s at elevation of 3 m. This steam leaves	A turbine operates under steady flow conditions, receiving steam 1.2 MPa at 188 °C	Solve Any One of the following.	Explain Clausius statement with scientific example of refrigerator	produce 70 J work. Determine the final Internal energy of the gas?		-		Solve Any Two of the following.	a) State runction b) Fain runction c) Properties of System q) None of these	Work and Heat transfers are	a) temperature in 'C b) temperature in 'F c) temperature in K d) None of these	Absolute thermodynamic temperature is expressed as	a) Without Heat Gain b) Without Heat Rejection c) Without Work d) None of these	Kelvin-Plank statement states no heat engine exists	a) Constant Pressure b) Constant Volume c) Constant Temperature d) Constant Entropy	Isochoric Process involves	d) All of these	a) Thermal Equilibrium b) Chemical Equilibrium c) Mechanical Equilibrium	Thermodynamic equilibrium is	a) Extensive property b) Intensive Property c) Path Function d) None of these	Density of fluid is		THE ROLL COLLECT STATES AND TAIL CO.		Draw schematic diagrams whenever necessary	Instructions to the Students: 1. Use of scientific calculator is nermitted.	Date: - Oct. 9, 2019	Subject Code: BT-MEC 305	CS	. 2019	MGM's, Jawaharlal Nehru Engineering College, Aurangabad
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