Q.P. Code: 20ME0353 **R20**

Reg. No: | | | | | | | | | | |

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY: PUTTUR

(AUTONOMOUS)

B.Tech I Year I Semester Regular & Supplementary Examinations May-2022

THERMAL AND FLUID ENGINEERING

(Electrical and Electronics Engineering)

Time: 3 hours Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

UNIT-I

1		Draw a neat sketch of a Thermal Power Plant and Explain each component in the thermal power plant.	L3	12M
		OR		
2	a	Define the term property. Distinguish between intensive property and extensive property with an example.	L1	7M
	b	Explain following terms state, path, process and cycle.	L1	5M

UNIT-II

3		Compare fire tube boilers and water tube boilers.	L2	12M
		OR		
4		Write short notes on i) Pressure gauge. ii) Water level indicator.	L6	12M

UNIT-III

5	a	Write a short note on surface tension and capillarity.	L6	6M
	b	Define compressibility and specific weight and write their units.	L1	6M
		OR		
6		Explain with neat sketch Bourdon tube pressure gauge.	L3	12M

UNIT-IV

7		List out types of flows and explain them clearly.	L2	12M
		OR		
8		Derive Euler's equation of motion and Bernoulli's energy equation.	L3	12M

UNIT-V

9	a	Define the terms a) Fluid jet b) Impact of jets.	L1	6M
	b	Find the force exerted by a jet of water of diameter 75 mm on a stationary flat plate, when the jet strikes the plate normally with velocity of 20 m/s.	L3	6M
		OR		
10		Explain the working of a Pelton wheel with a neat sketch.	L1	12M

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