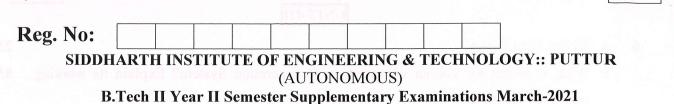
Q.P.	Code:	18ME0346
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R18

Max. Marks: 60

MECHANICAL ENGINEERING

(Common to CE & AGE)

Time: 3 hours

$\underline{PART-A}$ (Answer all the Ouestions 5 x 2 = 10 Marks)

1	a	What is the difference between Ideal Gas & Real Gas?	2M
	b	What are the advantages of CRDI Engine?	2M
	c	Define Refrigerant.	2M
	d	What are the different types of Brakes?	2M
	e	What is the difference between Brazing & Soldering?	2M

PART-B

(Answer all Five Units $5 \times 10 = 50$ Marks)

UNIT-I

2	a Explain the different types of process in Diesel Cycle.	4M
	b Illustrate the analysis of Otto Cycle Efficiency.	6M

OR

- 3 In an air standard diesel cycle, the compression ratio is 16 and the beginning of isentropic 10M compression the temperature is 150 C and the pressure is 0.1 MPa. Heat is added until the temperature at the end of the constant process is 14800C.Calculate:
 - i) The cut-off ratio
 - ii)The Heat supplied per Kg of air
 - iii) the Cycle efficiency
 - iv) The Mean effective pressure.

UNIT-II

4	a	Explain about different types of Steam Turbines.	5 M
	b	Explain the term Gas turbine and its Classification.	5 M
		OR	
5	a	What is a Hybrid Engines? Explain its Types.	4M
	b	Explain the working of Reciprocating Pump with a neat sketch.	6M

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		UNIT-III	_
6	a	Define Heat Pump.	2M
	b	What is meant by Vapour compression Refrigeration System? Explain its working	8M
		with neat diagram.	
		OR	
7	a	Define Psychometry.	2M
	b	What are the different types of Psychrometric Processes? Explain them with neat	8M
		diagram.	
		UNIT-IV	
8	a	Define power Transmission Devices.	6M
	b	Discuss in detail about Single Plate clutch.	4M
		OR	
9	Ex	xplain in details about different types of Gear Trains with neat sketch.	10M
		UNIT-V	

R18

10	a	Explain about Casting.	5 M
	b	Explain about Powder Metallurgy.	5M
		OR	

11	a	Explain in detail about CNC Machines.	5 M
	b	Discuss clearly about Metal Joining Process.	5M

END