Seat No.:	Enrolment No.
Jour 110	

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

BE - SEMESTER- VII • EXAMINATION-SUMMER 2015

Subject code: 170205 Da		te:06/05/2015	
•		Name: Alternative Fuels & Engines (Department El	· ·
		pm-5.00pm	Total Marks: 70
Instructions:			
		Attempt all questions.  Make suitable assumptions wherever necessary.	
		Figures to the right indicate full marks.	
		g	
Q.1	(a)	Write a short note on calorific values of fuels. Ment	
	<b>(b)</b>	advantages & disadvantages of gaseous fuels over solid fuels.	
	<b>(b)</b>	Classify I.C. engine in detail. Explain working of four stropetrol engine with suitable sketches.	oke <b>07</b>
		petrol engine with suitable sketches.	
<b>Q.2</b>	(a)	Explain combustion process & production process of methan	ol. <b>07</b>
	<b>(b)</b>	Write a short note on vegetable oil as an alternate fuel.	07
	<b>.</b>	OR	
	<b>(b)</b>	Write a short note on eco friendly plastic fuels.	07
Q.3	(a)	Discuss in detail uses of biogas in I.C. engine.	07
4.0	(b)	Write a short note on biodiesel production process.	07
		OR	
<b>Q.3</b>	(a)	1 1	ith <b>07</b>
	<b>(1.)</b>	biodiesel.	07
	<b>(b)</b>	Explain working of Wankel engine with neat sketch.	07
Q.4	(a)	Describe properties & production process of LPG as an eng	ine <b>07</b>
	()	fuel.	·
	<b>(b)</b>	Draw layout of solar powered vehicle and explain it.	07
		OR	
Q.4	(a)	Describe properties & production process of CNG as an eng fuel.	ine <b>07</b>
	<b>(b)</b>	Write a short note on fuel cell.	07
	(6)	write a short note on raci cen.	07
Q.5	(a)	Write a short note on green house effect.	07
	<b>(b)</b>	Explain working of sterling engine with neat sketch.	07
0.5	( )	OR	0=
Q.5	(a)	Describe advantages & disadvantages of electric vehicles.	07
	<b>(b)</b>	Draw layout of hydrogen car and explain it.	07

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