Seat	No.:	Enrolment No.	_
		GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-V • EXAMINATION - WINTER 2013	
Subject Code: 152206 Date: 09-12-20			
Sub	ject	Name: Fuel Technology	
Time: 10.30 am - 01.00 pm Instructions:  Total Marks: 70			
	2.	Attempt all questions.  Make suitable assumptions wherever necessary.  Figures to the right indicate full marks.	
Q-1	(a)	Give brief idea about Drift Theory & In situ theory of coal formation.	[07]
	(b)	Write the brief procedure to find out calorific value of Gaseous fuel.	[07]
Q-2	(a)	Explain the BEEHIVE method for coke manufacturing with its disadvantages with respect to OTTO HOFFMAN.	[07]
	(b)	Explain in brief Ultimate analysis for coal & its importance.	[07]
		OR	
	(b)	Give fuel classification. Also define following terms: 1)Gasification of coal 2)Carbonization 3)Calorific value 4)Fossil fuel	[07]
Q-3	(a)	Write brief difference between Low temperature carbonization & High temperature carbonization.	[07]
	(b)	Explain main component of LPG & properties of LPG.  OR	[07]
	(a)	Write short notes: 1) Coal Classification 2) Petrography of coal	[07]
	(b)	Explain process unit of producer gas plant with neat sketch.	[07]
Q-4	(a)	Explain manufacturing process of water gas with figure.	[07]
	(b)	Explain coke oven gas in detail.	[07]
		OR	
	(a)	Explain following property of Petroleum products.  1. Sp. Gravity 2. Flash point 3. Fire point 4. Anti	[07]
		knocking value	
	(b)	Explain bio gas gasification process.	[07]
Q-5	(a)	Write advantages & disadvantages of gaseous fuel over liquid OR solid fuel.	[07]
	(b)	How the natural gas produces?	[07]
	( )	OR	F0=3
	(a)	Why CNG is called as pollution free fuel.	[07]
	(b)	Write short notes: 1) Dewaxing of petroleum products	[07]
		2) Sweetening process of petroleum	

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