Enrolment No./Seat No_____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE- SEMESTER–VI EXAMINATION – WINTER 2025

Subject Code: 3160510 Date: 21-11-2025

Subject Name: Petroleum Refining and Petrochemicals

Time: 02:30 PM TO 05:00 PM Total Marks: 70

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **Simple and non-programmable scientific calculators are allowed.**

			MARKS
Q.1	**(a)**	Discuss the composition of crude oil..	**03**
	(b)	Discuss classification of crude oil in brief.	**04**
	(c)	Discuss the recent scenario of production of crude oil and refineries in India.	**07**
Q.2	**(a)**	Discuss briefly; Flash point and Fire point.	**03**
	(b)	Discuss in brief Vacuum Distillation Unit.	**04**
	(c)	Discuss any three tests for testing of gasoline in detail.	**07**
		OR	
	(c)	Discuss about different types of additives added in gasoline and their functions.	**07**
Q.3	**(a)**	Explain in brief: Cloud and Pour Point.	**03**
	(b)	Write short note on Electric desalting process.	**04**
	(c)	Discuss with neat diagram Fluid catalytic cracking in detail..	**07**
		OR	
Q.3	**(a)**	Explain ASTM distillation process.	**03**
	(b)	Discuss any two tests recommended for kerosene.	**04**
	(c)	Discuss in detail about Plat forming with neat sketch.	**07**
Q.4	**(a)**	Explain briefly Visbreaking.	**03**
	(b)	Discuss in brief about Lead Doctor sweetening process for gasoline.	**04**
	(c)	Discuss manufacturing process of Ethylene with neat sketch.	**07**
		OR	

Q.4	**(a)**	Discuss properties of Formaldehyde.	**03**
	(b)	Discuss major engineering problems involved in production of PVC.	**04**
	(c)	With the help of a detailed flow diagram explain the manufacturing process of Styrene.	**07**
Q.5	**(a)**	Discuss Octane number and its significance.	**03**
	(b)	Explain the major engineering problems involved in the Manufacturing of Methanol.	**04**
	(c)	Discuss manufacturing process of LDPE with neat sketch along with its application.	**07**

OR

Q.5	**(a)**	Discuss properties and applications of Polypropylene.	**03**
	(b)	Explain True boiling point test with neat sketch.	**04**
	(c)	Discuss with neat flow diagram the manufacturing process of Ethylene dichloride.	**07**

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