

GUJARAT TECHNOLOGICAL UNIVERSITY**Diploma Engineering - SEMESTER-V • EXAMINATION – SUMMER • 2014****Subject Code: 350503****Date: 29-05-2014****Subject Name: Petroleum Refining and Petrochemical Technology****Time: 02:30 pm - 05:30 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. English version is considered to be Authentic.

- Q.1** (a) Brief note on Occurrence of Petroleum. **07**
(b) Explain Pipe still heater in detail with their neat and clean sketches. **07**
- Q.2** (a) List out various cuts yields during distillation of crude oil with boiling range. **07**
And classify the Gas obtained from petroleum.
(b) Define Cracking and Describe types of cracking with difference between them. **07**
- OR
- (b) Short note on composition of Petroleum **07**
- Q.3** (a) Mention the types arrangement of towers in distillation of crude and explain any one. **07**
(b) Classify the Refinery and process of Refinery. **07**
- OR
- Q.3** (a) What is Sweating and Sweeting? List the various methods for each. **07**
(b) Short note on development of petroleum industry in Gujarat and India. **07**
- Q.4** (a) Define: Flash point, Fire point, smoke point, softening point with their significance. **07**
(b) Mention the solvent extraction method for sulphur removal from Kerosene and differentiate them. **07**
- OR
- Q.4** (a) Give full form of.1. RON 2. MON 3. UOP 4. API 5. OPEC. 6. ONGC 7. ADU **07**
(b) Define Petroleum and Petrochemical and List out various product **07**
- Q.5** (a) Describe the process for manufacture of Ethylene Oxide in detail with flow diagram. **07**
(b) Explain the Mfg. of Phenol by Benzene sulphonate process. **07**
- OR
- Q.5** (a) Why the dehydration and desalting of crude required? List the different methods for dehydration and explain any one. **07**
(b) Short note on Treatment techniques for Petroleum product. **07**
