

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III • EXAMINATION – WINTER • 2014****Subject Code: 2130501****Date: 18-12-2014****Subject Name: Organic Chemistry and Unit Process****Time: 02.30 pm - 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.

- Q.1** (a) Define cracking. Explain any one method of catalytic cracking. **07**
(b) Write short note on synthetic petrol. **07**
- Q.2** (a) How is sucrose manufactured from sugar cane? Explain by giving flow sheet diagram. **07**
(b) Write a note on Ruff degradation. **07**
- OR**
- (b) Write a note on Killiani fischer synthesis. **07**
- Q.3** (a) Discuss the theories of color and constitution. **07**
(b) What is dye? How are dyes classified on the basis of application? **07**
- OR**
- Q.3** (a) Explain the reaction mechanism of Wolf-kisher and canninzaro reaction. **07**
(b) Explain the preparation, properties and use of furan. **07**
- Q.4** (a) Explain the manufacturing process of Acetic acid. **07**
(b) Write a note on optical activity by using a suitable example. **07**
- OR**
- Q.4** (a) Explain unit process for nitration and sulphonation. **07**
(b) Explain unit process for amination and oxidation in detail. **07**
- Q.5** (a) Explain nucleophilic substitution reaction in detail with their mechanism. **07**
(b) Write a note on optical isomerism of lactic acid and tartaric acid. **07**
- OR**
- Q.5** (a) Explain your understanding for E,Z,notation. **07**
(b) Discuss bromination of benzene with its reaction mechanism. **07**
