

GUJARAT TECHNOLOGICAL UNIVERSITY
B.PHARM - SEMESTER- 2 EXAMINATION – WINTER -2019

Subject Code: BP202TP**Date: 17-12-2019****Subject Name: Pharmaceutical Organic Chemistry I****Time: 10:30 AM TO 01:30 PM****Total Marks: 80****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Give the methods for the preparation of carboxylic acid. **06**
(b) Explain Aldol and Crossed aldol condensation. **05**
(c) Explain classification of organic compounds with example. **05**
- Q.2** (a) Give the structure and uses of (i) Formaldehyde (ii) Paraldehyde (iii) Chloral hydrate (iv) Vaniline (v) Cinnamaldehyde (vi) Hexamine **06**
(b) Give the general methods for the preparation of amines. **05**
(c) Explain mechanism of (i) Cannizaro reaction (ii) Perkin condensation. **05**
- Q.3** (a) Discuss classification of alcohols. What happens when they are dehydrogenated catalytically? **06**
(b) Differentiate markownikoff's and anti- markownikoff's rules with suitable examples. **05**
(c) Give the methods of preparation of carbonyl compounds. **05**
- Q.4** (a) Give the structure and uses of (i) Dimethyl phthalate (ii) Dichloromethane (iii) Benzoic acid (iv) Ethanolamine (v) Oxalic acid (vi) Amphetamine. **06**
(b) Define saytzeff's rule with one example. **05**
(c) Write note on dines. **05**
- Q.5** (a) Give in detail on structural isomerisms in organic compounds. **06**
(b) Describe two methods of preparation and two chemical properties of alcohols. **05**
(c) Explain diels-alder reaction. **05**
- Q. 6** (a) Give the mechanism of E₁ and E₂ reaction. **06**
(b) Give methods for the preparation of Alkanes. **05**
(c) Note on hybridization in alkanes. **05**
- Q.7** (a) Discuss SN¹ and SN² reaction. **06**
(b) How does structure effect the basicity of amines? **05**
(c) How will you separate 1°, 2° and 3° amines by Hinsburg method? Give equations also. **05**
