

# C.U. SHAH UNIVERSITY

## Winter Examination-2022

**Subject Name: Pharmaceutical Organic Chemistry I - Theory**

**Subject Code: BP202T**

**Branch: B. Pharm**

**Semester: 2**

**Date: 20/09/2022**

**Time: 11:00 To 02:00**

**Marks: 75**

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

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- Q-1**      **Attempt the following questions:**      **(20)**
- a) What do you mean by Alicyclic and Acyclic compounds? Explain by giving proper examples.
  - b) Why even number of carbon containing alkanes have higher melting point? Explain.
  - c) Give reason: Why ketones are less reactive than aldehydes in nucleophilic addition reaction?
  - d) Define and classify amines.
  - e) Compare acidity of Benzoic acid, Acetic acid and Ethyl alcohol
  - f) Differentiating tests for Ketone
  - g) Physical properties of alkyl halide
  - h) Hinsberg Test for amines
  - i) Structure and uses of: Amphetamine
  - j) 4+2 reaction for Dienes
- Q-2**      **Attempt any two of following :**      **(20)**
- A Write a detail note on E1 and E2 reaction along with its reaction, mechanism, difference and explanation.      **10**
  - B Discuss SN1 and SN2 reactions in Alkyl Halides and Stereochemistry involved      **10**
  - C Give Reactions of following:      **10**
    - i) Aldol & Cross-Aldol Condensation
    - ii) Cannizzaro & Crossed-Cannizzaro Reaction
- Q-3**      **Attempt any Seven of following :**      **(35)**
- A Discuss Sp<sup>3</sup> and Sp<sup>2</sup> Hybridization in alkanes and its impact.      **5**
  - B Write oxidation of Aldehyde & Ketone.      **5**
  - C Explain Birchman Simonini Reaction.      **5**
  - D Explain Markovnikov's and Anti-Markovnikov's orientation in alkenes.      **5**
  - E Give laboratory method of preparation of alkanes and alkenes.      **5**
  - F Give Qualitative test, structure and uses of Glycerol and Propylene Glycol.      **5**
  - G Separation of primary, secondary and tertiary amines      **5**
  - H Write a detail note on Isomerism.      **5**
  - I Define: Diene. Write down its method of preparation and chemical property.      **5**

