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Total No. of printed pages = 02

Winter, 2025 / 23/05

B. Pharm 2nd Semester Examination
Pharmaceutical Organic Chemistry - I

Course Code: BP202T

Bina Chowdhury Central Library
 Girijananda Chowdhury University
 Hatkhowabara, Azara, Ghy-17

Full Marks – 75

Time – 3 hours

The figure in the margin indicates full marks for the questions.

1. Objective type question (Answer all questions):

10 x 2=20

- (i) Describe one qualitative test for alcohol.
- (ii) Explain one qualitative test for alkyl halide.
- (iii) Draw the structure of benzaldehyde.
- (iv) Draw the structure of Glycerol.
- (v) Explain structural isomerism.
- (vi) Describe one method of preparation of alkene
- (vii) Write a reaction to differentiate between primary, secondary and tertiary alcohol.
- (viii) Differentiate between alkane, alkene and alkyne.
- (ix) Explain the difference between sigma bond and pi bond.
- (x) Explain carbonyl compounds along with its various types.

2. Short Answers (Answer any seven)

7 x 5 =35

- (i) Discuss any two methods of preparation of alkane.
- (ii) Describe about inductive effects in organic compounds.
- (iii) Write any two methods of preparation of alcohol?
- (iv) Explain about aldol condensation reactions with proper example.
- (v) Explain about Cannizzaro reactions with proper example.
- (vi) Describe the S_N1 and S_N2 reactions of alkyl halides.
- (vii) Describe Electrophilic addition reaction of alkenes.
- (viii) Explain the free radical reactions of alkanes.
- (ix) Explain the rules for the nomenclature of alkene as per IUPAC rules with proper examples.

3. Long Answers (Answer any two)

2x10=20

- (i) Explain conformational isomerism of alkane & geometrical isomerism of alkene.
- (ii) Explain about the use of following in pharmaceutical science by mentioning their chemical structure:
- Benzyl alcohol
 - Chloroform
 - Propylene glycol
 - Methanol
- (iii) Explain about
- Corey-House reaction
 - Wurtz reaction.
 - Hell – Volhard Zelinsky reaction of carboxylic acid
 - Pyrolysis of alkane