

Total No. of Questions : 6]

SEAT No. :

P1435

[5049]-204

[Total No. of Pages : 3

F.Y.B. Pharmacy

**1.1.4 : PHARMACEUTICAL ORGANIC CHEMISTRY -II**  
**(2013 Pattern) ( Semester-II)**

Time : 3 Hours]

[Max. Marks : 70

Instructions to candidates:

- 1) Answers to the two sections should be written on the separate answer books.
- 2) Figures to the right indicate full marks.
- 3) All questions are compulsory.

**SECTION - I**

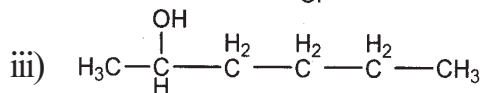
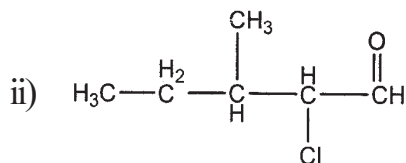
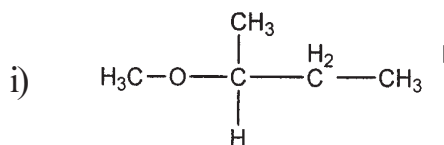
**Q1)** Aldehydes and Ketones are susceptible for nucleophilic addition reactions explain. Write any two methods of preparation of aldehydes and write a note on aldol condensation. [10]

OR

What are phenols, explain their acidic nature, explain any three methods and three reactions of phenols. [10]

**Q2)** Answer the following (Any Five) [15]

- a) Draw structures from IUPAC names of following.
  - i) 2-methoxy propane
  - ii) 4-nitrophenol
  - iii) 2-pentanol
- b) Write IUPAC names for following structures.



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- c) Discuss reactions of alcohols with conc. Sulphuric acid.
- At room temperature
  - At 170°C
  - Dehydration at 140°C
- d) Discuss mechanism of Claisen reaction.
- e) Explain Perkin Reaction.
- f) Explain Cannizaro reaction.
- g) How will you distinguish among primary, secondary and tertiary alcohols.

**Q3) Solve any two: [10]**

- Give any two methods of preparation and two reactions of Sulphonic Acids.
- Explain Reformatsky reaction.
- Write a note on Knoevenagel condensation.
- Write any two methods of preparations and two reactions of Ethers.

### **SECTION - II**

**Q4) Explain the substitution Nucleophilic unimolecular reaction, with mechanism and stereochemistry giving suitable examples. [10]**

OR

Write method of preparation of following: [10]

- Acid chlorides
- Anhydrides
- Amides
- Esters

**Q5) Solve any Five**

**[15]**

- a) Describe how primary, secondary and tertiary amines can be separated from mixture.
- b) Explain acid catalyzed esterification of carboxylic acids.
- c) Give any two Chemical Reactions of Acid Chloride.
- d) Explain Ammonolysis of esters.
- e) Give any two methods of preparation of amines.
- f) Why esters are less reactive towards nucleophile than aldehydes?
- g) Compare and explain the basicities of ethanalamine and aniline.

**Q6) Solve any Two**

**[10]**

- a) Give methods of preparation of Cyanides and isocyanides.
- b) Give methods of preparations & Reactions of dicarboxylic acid.
- c) Short note on Michael addition.
- d) Explain Haloform reaction with suitable example.

