

5230

**B. Sc. EXAMINATION**

(For Batch 2013 & (Inwards)

(Fourth Semester)

**CHEMISTRY**

**Paper XIII (CH-206)**

**Organic Chemistry**

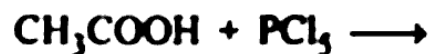
*Time : Three Hours*

*Maximum Marks : 27*

**Note :** Attempt Five questions in all. Q. No. 1 is compulsory. Attempt two questions out of three from each Section A and B.

1. (i) Write IUPAC name of  $\alpha$ -hydroxypropionic acid.

(ii) Complete the reaction :



(iii) Write mathematical form of Hooke's law.

(ii) aldehydes

(iii) nitriles

(iv) alkynes

(v) aromatic ring.

(b) On what factors stretching vibrational frequencies depend and how ? 3+2=5

**Section B**

5. (a) Arrange the following in increasing order of basic strength in aqueous solution :

$\text{C}_6\text{H}_5\text{NH}_2$ ,  $(\text{C}_2\text{H}_5)_2\text{NH}$ ,  $(\text{C}_2\text{H}_5)_3\text{N}$  and  $\text{NH}_3$

(b) How will you carry out the following conversions :

(i) Ethanoic acid to methanamine

(ii) Methanol to acetic acid

(iii) Nitrobenzene to benzoic acid.

6. (a) Write equations for preparation of the following :

(i) Methyl amine from acetic acid

(ii) 1,2,3-tribromobenzene from aniline

(iii) Ethyl amine from methyl bromide

(b) How will you convert ethyl amine into

(i) Ethanol

(ii) Diethyl amine ? 3 + 2 = 5

7. Give brief account of each of the following

(i) Gabriel phthalimide synthesis

(ii) Balz Schiemann reaction

(iii) HVZ reaction

(iv) Sandmeyer reaction

(v) Coupling reaction. 1 + 2 + 3 = 5