

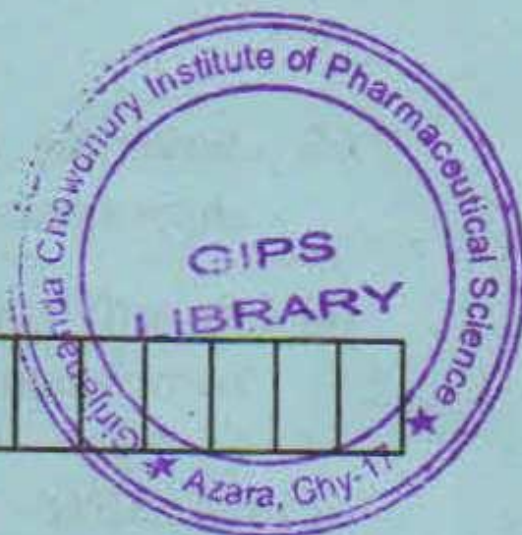
07/06/17

Total No. of printed pages = 4

PY 132208

Roll No. of candidate

--	--	--	--	--	--	--	--	--	--



2017

**B. Pharm 2nd Semester End-Term Examination**

**PHARM CHEMISTRY-II**

**(Organic Chemistry-I)**

Full Marks – 100 Pass Marks – 35 Time – Three hours

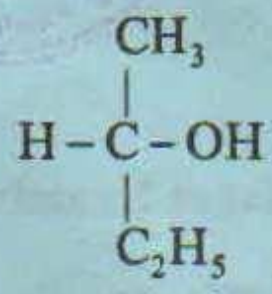
The figures in the margin indicate full marks  
for the questions.

1. Answer any *ten* :  $3 \times 10 = 30$
- (a) What is orbit ? Write the name of different types of orbit with their electron carrying capacity as per Bohr's atomic model.
- (b) Define lone pair electrons. How many lone pair electron present in N and F ?
- (c) What type of hybridisation is found in Ethane, Ethyne and Ethene ?

[Turn over

F1/20/50

- (d) Write the conditions for a compound to show optical activity.
- (e) Specify the configuration and IUPAC nomenclature of the following compounds.



- (f) Explain the term chiral carbon with example.
- (g) Write any 3 differences between electromeric effect and inductive effect.
- (h) What is carbanion ion ? Give example.
- (i) Prepare benzene from n-hexane.
- (j) Write a reaction to differentiate between 1°, 2° and 3° alcohols.
- (k) Differentiate between alkane, alkene and alkynes.

2. Answer any *eight* : 5×8=40

- (a) Prepare ethane by
  - (i) Wurtz rex<sup>n</sup>
  - (ii) hydrogenation of alkenes.

- (b) What happens when benzene undergoes
- Oxidation in presence of  $\text{H}_2\text{O}_5$ ,  $500^\circ\text{C}$
  - Chlorination under Uv light.
- (c) Write a short note on order of reactivity of  $1^\circ$ ,  $2^\circ$ ,  $3^\circ$  alkyl halides towards nucleophilic substitution  $\text{S}_\text{N}^\text{n}$ .
- (d) Write a short note on inductive effect.
- (e) Differentiate between carbocations and carbanions.
- (f) Write a short note on D-L configuration.
- (g) Write how stereo isomers undergo stereoselective synthesis.
- (h) Differentiate between geometrical isomer and optical isomer.
- (i) Briefly explain polarity of covalent bonds.
- (j) Differentiate between Sigma bond and Pi bond.

3. Answer any *three* : 10×3=30

- (a) What is hybridisation? Classify it and explain with examples. 1+5+4=10

(b) Briefly explain : 5+5=10

(i) Carbenes

(ii) Nitrene

(c) Write any three methods of preparation of alcohol. What happens when Ethanol reacts with

(i)  $\text{SOCl}_2$  and heat

(ii) Conc.  $\text{H}_2\text{SO}_4$  at  $130^\circ\text{C}$  ?

$(3 \times 2) + 2 + 2 = 10$

(d) Write any three methods of preparation of diethyl ether. Shortly explain narcotic action and solubility of alcohol.  $(3 \times 2) + 2 + 2 = 10$