Seat Number

* 3 2 0 2 *

W-19

BP 401 T
Pharmaceutical Organic Chemistry-III
(724401)

P. Pages : 3

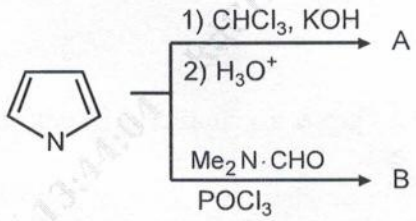
Time : Three Hours **Max. Marks : 75**

Instructions to Candidates :

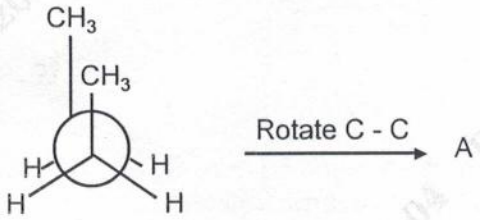
1. Do not write anything on question paper except Seat No.
2. Graph or diagram should be drawn with the black ink pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. All questions are compulsory.
5. Figure in black to the right indicate full marks.

1. Solve the following. **20**

a) Which is the product A & B in the following reaction.



b) Write the product A in the following rotation –



Eclipsed conformation of n-batane

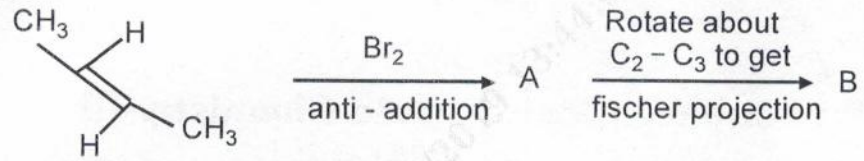
c) Predict the product A & B in the following reaction

d) Complete the following reaction

$$CH_3COOH + N_3H \xrightarrow[\text{Schmidt Rearrangement}]{H_2SO_4}$$

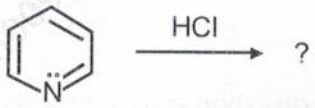
e) -------- is responsible for Geometrical isomerism

f) Write the product A & B of the following



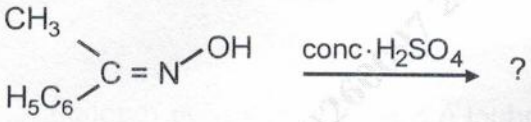
g) The correct order of aromaticity of furan, thiophen & pyrrole is -----

h) Which is the product of following reaction



i) Complete the following reaction to get the product

j) Complete the following Beckmann rearrangement reaction write the product.



2. Solve **any two.** 20

a) Write reaction, mechanism & application of Beckmanns rearrangement & Schmidt rearrangement.

b) Explain synthesis, reactions & medicinal uses of

a) Furan

b) Thiophene

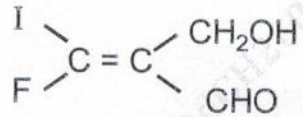
c) What do you mean by racemic mixture & racemic modification? Explain various methods of resolution of racemic mixture.

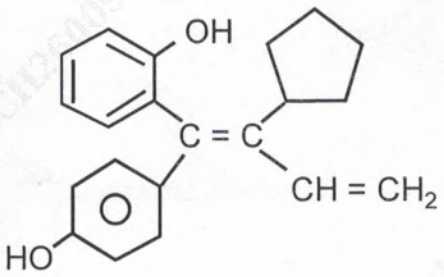
3. Solve **any seven.** 35

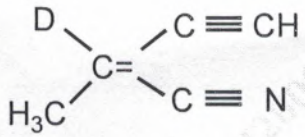
a) Why pyridine undergoes electrophilic substitution at β -Position?

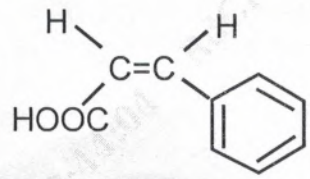
b) What is stereoselectivity and stereospecificity? Explain it with suitable example.

c) Assign E & Z configuration to the following.

i) 

ii) 

iii) 

iv) 

d) Explain in detail oppenauer – oxidation reaction with suitable example.

e) Write aromaticity and reactivity of Furan.

f) Explain synthesis, reactions & medical uses of Thiazole

g) Explain basicity of pyridine.

h) Explain stereoisomerism in biphenyl compounds

i) Explain synthetic method & two characteristic reactions for Imidazole & Pyrrole

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