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Pharmaceutical Organic Chemistry-III
(724401)

Time : Three Hours

Max. Marks : 75

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.

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$$\begin{array}{c} \text{Br} \\ | \\ \text{C}_2\text{H}_5 - \text{C} - \text{H} \\ | \\ \text{OH} \end{array}$$

- a) R
b) S
c) RS
d) None of the above

C=C(Cl)Br

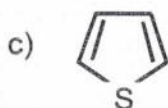
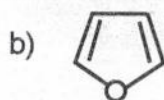
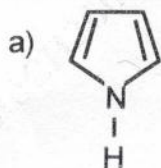
- a) E b) Z
c) EZ d) EE

- a) It has four different atoms attached to carbon
- b) Non superimposable on its mirror image
- c) Superimposable on its mirror image
- d) Both (a) and (b)

a) C_3H_3N b) $C_3H_3H_2N$
c) $C_3H_3HN_2$ d) $C_3N_2H_4$

a) Alcohols b) Amide
c) Phenols d) Oxime

vi) Which is the correct structure of the thiophene



d) None of the above

vii) Dipole moment of trans geometrical isomers is

a) One

b) Two

c) Zero or near to zero

d) None of the above

viii) Which types of isomers are formed in rearrangement reaction?

a) Structural isomers

b) Geometrical isomers

c) Optical isomers

d) Conformational isomers

ix) Condensation reaction is the reverse of which of the following reaction?

a) Oxidation

b) Reduction

c) a and b

d) Hydrolysis

x) Geometrical isomers formed in which compound.

a) In alkene

b) In cyclic compound

c) both a & b

d) None of the above

b) Solve the following.

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i) Write the Medicinal uses of purines & isoquinolines.

ii) Give the reaction for backmann reaction.

iii) Why pyridine is weaker base than aliphatic tertiary amines.

iv) Define the following terms with example

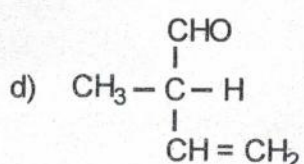
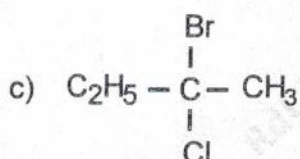
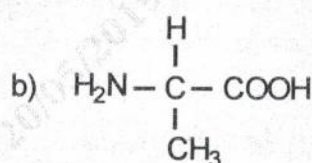
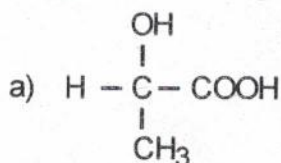
a) Enantiomer

b) Diastereoisomer

c) Racemic modification

d) Meso Compound

v) Assign R & S configuration to following



2. Solve any two of the following.

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- i) a) Define & classify stereoisomer with example.
b) Write note on Resolution of Racemic Mixture.
- ii) Write in brief about configuration of n-butane with energy profile diagram.
- iii) Explain reaction & mechanism involved in Backmanns rearrangements & schmidt reaction.

3. Solve any seven.

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- i) Explain the reaction & mechanism involved in oppenauer oxidation reaction.
- ii) Comment on electrophilic substitution reaction involved in Furan.
- iii) Give any two method of preparation & chemical reaction of pyridine.
- iv) Explain in detail RS system of nomenclature of optical isomers.
- v) Explain the concept of stereoselective & stereospecific reaction.
- vi) Give the various method for determination of geometrical isomers.
- vii) Write any two method of preparation & chemical reaction of Indole.
- viii) Explain in detail E & Z system of nomenclature of geometrical isomers.
- ix) Comment on clemmensen reduction reaction.
