

Directorate of Distance Education
S.K.University – Anantapuramu
M.Sc. Chemistry Second Year

Paper - V : ORGANIC REACTION MECHANISM

Max. Marks : 25

SECTION - A

Answer the following questions

2x10=20 Marks

1. What is an anchimeric assistance? Write an account of neighbouring group participation reactions where nitrogen and argl groups are involved.
2. Discuss the mechanism of following:
(a) Hozmann rearrangement.
(b) Bayer - Villiger rearrangement.

SECTION - B

Answer the following question.

1x5=5 Marks

3. What is Paterno - Buchi reaction? Discuss the stereochemistry of Paterno - Buchi reaction.

Paper - VI : ORGANIC SPECTROSCOPY

Max. Marks : 25

SECTION - A

Answer the following questions

2x10=20 Marks

1. Draw a schematic diagram of IR spectrometer. Describe its function. Write an account of sampling techniques in IR.
2. Write an essay on the factors affecting chemical shifts in Proton and ^{13}C NMR.

SECTION - B

Answer the following question.

1x5=5 Marks

3. Write an account of the following.
(a) MC Lafferty rearrangement.
(b) Metastable icons

Paper VII - ORGANIC SYNTHESIS

Max. Marks : 25

SECTION - A

Answer the following questions

2x10=20 Marks

1. Describe the mechanism of following.
(a) Wittig reaction
(b) Claisen rearrangement.
2. Write an account of the following.
(a) Hydroboration and Oxidation.
(b) Phase Transfer Catalysis.

SECTION - B

Answer the following question.

1x5=5 Marks

3. Define the following with examples.
(a) Synthons and Synthetic equivalent.
(b) Functional Group Inter Conversion.

Paper VIII - NATURAL PRODUCTS AND BIOPOLYMERS

Max. Marks : 25

SECTION - A

Answer the following questions.

2x10=20 Marks

1. Write an account of the structural elucidation of cholesterol.
2. Write an account of the structural elucidation of Morphine.

SECTION - B

Answer the following question.

1x5=5 Marks

3. Write an account of the secondary structure of DNA.