



ADITYA DEGREE COLLEGES

ANDHRA PRADESH

IV SEMESTER –MID-I EXAMINATIONS

Date:

**SUB : Nitrogen containing organic compounds
and spectroscopy(major)**

Max Marks : 60M

Time : 2 Hr

SECTION– A

I. Answer any five questions:

5 X 4 = 20 M

1. Hoffmann's exhaustive methylation?
2. Carbylamine reaction?
3. Schmidt reaction?
4. Explain Formation of γ and δ -lactones?
5. Write the preparation of leucine from Gabriel phthalimide synthesis?
6. Explain chirality in amine?
7. Explain preparation of Azo dyes?
8. Explain structure and nomenclature of peptides and proteins?

SECTION– B

II. Answer all the questions:

4 X 10 = 40 M

9. a) Write the preparation of amines from
 - (i) Gabriel synthesis.
 - (ii) Hoffmann-Bromamide reaction(with mechanism)

Or

 b) Write the preparation of Diazonium salt and explain synthatic applications.
10. a) Write the preparation of valine and explain chemical properties of valine.

Or

 b) Define amino acid and explain classification.
11. a) Write the preparation of Alanine and explain chemical properties of Alanine.

Or

 b) Explain zwitter ion and iso electric point.
12. a) Explain Hofmann and cope elimination.

Or

 b) Explain distinction between 1° , 2° , 3° amines using Hinsberg's method and Nitrous acid.