

Branch -**BIOTECHNOLOGY**

CHEMISTRY FOR BIOTECHNOLOGY

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10 x 2 = 20)

- 1 Define Mole Fraction.
- 2 What do you mean by sublimation process?
- 3 What are vitamins? Give one example.
- 4 Define the term antiseptic.
- 5 What are natural organic fertilizers? Give one example.
- 6 What is called nicotine?
- 7 What are plastics? Give its types.
- 8 Define the terms perfumes and flavours.
- 9 What are the different forms of heather?
- 10 What is meant by adhesives? Give examples.

SECTION - B (25 Marks)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks (5 x 5 = 25)

- 11 a Write note on fractional distillation.
OR
b. Explain the term green synthesis with suitable examples.
- 12 a What are antibiotics? Explain their role with one example.
OR
b Explain the deficiency diseases of vitamins.
- 13 a Explain the manufacture and application of ammonium nitrate and triple super phosphate.
OR
b What are Insecticides? How are they classified according to their mode of action.
- 14 a What are detergents? Explain their classification.
OR
b What is polymerization? Explain their types.
- 15 a Write notes on enzymes involved in leather industry.
OR
b Write short notes on tanning and finishing process in leather industry.

SECTION - C (30 Marks)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Explain the following terms.
i) Nano chemistry ii) Purification of liquids iii) Green Synthesis
iv) Mass percentage and PPM
- 17 i) What are the functions and classification of vitamins?
ii) Explain the mode of action of sulphur drugs.
- 18 What are fertilizers? Mention their need and Explain their classification with examples.
- 19 How detergents are manufactured? Give the preparation and uses of Urea.
- 20 Write note- on Rubber based adhesives and silicate adhesives. Give examples and their importance.