22CHU622

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2025
(Sixth Semester)

Branch – **CHEMISTRY**

ORGANIC CHEMISTRY - II

Time: Three Hours | Maximum: 50 Marks

SECTION-A (5 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (5 x 1 = 5)

1 What is the molecular formula of pyridine?
(i) C_5H_5N (ii) C_5H_4N
(iii) C_4H_5N (iv) C_6H_5N

2 Who discovered DNA & RNA?
(i) Watson & Crick (ii) Bohr & Dalton
(iii) Thomson (iv) Dalton

3 Mention the loss of electron is
(i) Oxidation (ii) Reduction
(iii) Redox (iv) Reductive

4 Indicate aromatic compound from the following
(i) Benzene (ii) Acetic acid
(iii) Sodium (iv) Carbon

5 Find the molecular formula of cyclohexane is
(i) C_6H_{12} (ii) C_5H_4
(iii) C_4H_5 (iv) C_6H_5

SECTION - B (15 Marks)
Answer **ALL** Questions
ALL Questions Carry **EQUAL** Marks (5 x 3 = 15)

6 a Outline the any three uses of selenium dioxide.
OR
b Explain any three properties of quinoline.

7 a Summarize the preparation of amino acids.
OR
b Describe the uses of nucleic acids.

8 a Classify the molecular rearrangement.
OR
b Prepare chromium based oxidations.(Preparation only)

9 a State a brief note on nucleophile.
OR
b Explain hofmann rule.

10 a Describe any three properties of cycloalkanes.
OR
b Outline moffit concept.

Cont...

SECTION -C (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 6 = 30)

11 a Discuss the preparation and properties of pyrrole.

OR

b Discuss the synthetic uses of NBS.

12 a Examine the classification of proteins.

OR

b Outline the peptide synthesis.

13 a Elucidate the mechanism of Beckmann rearrangement with mechanism.

OR

b Summarise the uses of $NaBH_4$ and $LiAlH_4$

14 a Analyse the mechanism of E1 and E2 eliminations.

OR

b Classify aliphatic nucleophilic substitution reaction with examples.

15 a Outline the conformational analysis of n-butane.

OR

b Discuss baeyar strain theory.

Z-Z-Z

END