

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2019
(Third Semester)
Branch-BOTANY
CHEMISTRY -1

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks!)

Answer ALL questions

ALL questions carry EQUAL marks

(10x2 = 20)

- 1 Define oxidation number.
- 2 State - Pauli exclusion principle.
- 3 What is Huckels rule?
- 4 Give any two uses of Nicotine.
- 5 Write any two examples of Antipyretics.
- 6 Draw the chemical structure of Indigo.
- 7 Define - Consecutive reactions.
- 8 What is meant by catalytic poisoning?
- 9 Write any two effects of acid rain.
- 10 Define-COD.

SECTION - B (25 Marks!)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 5 = 25)

- 11 a State and explain the Hund's rule.
OR
b What are oxidizing and reducing agents? Give examples.
- 12 a What are alkaloids? Explain the classification.
OR
b State and explain isoprene rule of alkaloids.
- 13 a Define - Antibiotics and tranquilizers. Give examples.
OR
b Define - Dyes. Explain the requisites of dyes.
- 14 a What is pseudo unimolecular reaction? Explain with examples.
OR
b Explain the types catalysis.
- 15 a What are pollutants? Explain its classification.
' OR
b Describe the classification of water pollution.

SECTION - C (30 Marks!)

Answer any THREE Questions

ALL Questions Carry EQUAL Marks

(3 x 10 = 30)

- 16 What is meant by orbit and orbital? Explain the different types and shapes of orbitals.
- 17 Discuss the preparation, properties and uses of benzene.
- 18 Write note on the followings. (5x2=10)
(i) sulphadiazole (ii) Antiseptics (iii) Disinfectants (iv) chromophore
(v) Auxochrome
- 19 (a) Derive the rate constant for first order reaction (5)
(b) What are reversible and chain reaction? Explain with examples (5)
- 20 Define - soil pollution. Explain the sources, effects and preventive measures, and factors affecting the soil pollution.