

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**BSc DEGREE EXAMINATION DECEMBER 2019
(Fourth Semester)**

Branch - BOTANY

CHEMISTRY - II

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer **ALL** questions

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

- 1 Write any two uses of Urea.
- 2 Write the structure of sodium metabisulphate.
- 3 How will you prepare ethanol from molasses?
- 4 Define Proteins.
- 5 Define Molarity.
- 6 What is fractional crystallization?
- 7 Define P^H .
- 8 Define Ostwald's law.
- 9 Draw the structure of myoglobin.
- 10 Any two industrial uses of cadmium.

SECTION - B (25 Marks)

Answer **ALL** Questions

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

- 11 a Write the preparation and properties of sodium hydro sulphite.
OR
b Write note on triple super phosphate.
- 12 a Explain the manufacturing process of spirit and Wine.
OR
b Prepare furan and pyridine.
- 13 a Discuss distillation method of extraction of organic compounds.
OR
b Write note on (i) Normality (ii) Molarity.
- 14 a Illustrate Faraday's Law.
OR
b Differentiate physical and chemical absorption.
- 15 a discuss the chemistry of Hemoglobin.
OR
b Write note on toxicity and pollution sources of mercury, lead and chromium.

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

- 16 (i) What is EOT A and mention its applications.
(ii) Discuss the role of chlorophyll in biology.
- 17 Discuss preparation, properties and uses of glycine and alanine.
- 18 Write brief account of chromatography techniques.
- 19 Discuss Langmuir absorption isotherm.
- 20 Write down the twelve principles of green chemistry.