

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2017
(First Semester)

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 normality.
- 2 What is meant by crystallization?
- 3 Explain the term Anesthetics.
- 4 Draw the conformations of cyclohexane.
- 5 What are manures?
- 6 Comment on botanical insecticides.
- 7 Enumerate non-ionic detergents.
- 8 Differentiate perfumes from flavours.
- 9 Differentiate hides from skin.
- 10 What is the concept of atom economy?

SECTION - B (25 Marks)

Answer ALL Questions

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

- 11 a Give a brief account on nano chemistry.
OR
b Discuss the need for green chemistry. Illustrate with examples.
- 12 a Explain the following: (i) Antibiotics (ii) Sulpha drugs. (2 'A + 2 'A)
OR
b Describe the conformational analysis of n-butane.
- 13 a What are plant nutrients? Give their significance in plant growth.
OR
b Write notes on inorganic insecticides.
- 14 a Describe the preparation of any two perfumes any, tvrerpoirflinags..
OR
b Explain the role of enzymes in detergent industry.
- 15 a Outline the manufacturing process of leather.
OR .
b Write a brief note on the following: Lining and bating processes.

SECTION - C (30 Marks)

Answer any THREE Questions

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

- 16 Describe any two methods available for the purification of liquids.
- 17 Give a comprehensive account on vitamins.
- 18 Discuss the manufacture and applications of nitrogenous, phosphatic and potash fertilizers.
- 19 Write the preparation, properties and biological applications of the following:
(i) Polyurethane (ii) Polyethylene (iii) Teflon and (iv) Nitrocellulose
(4 x 2/4 = 10)
- 20 Describe the preparation of the following adhesives: (i) Starch (ii) Silicate
(iii) Rubber based adhesives and (iv) Animal glue. (4 x 2 !4 = 10)