

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2017
(Third Semester)

Branch- ZOOLOGY

CHEMISTRY -1

Time : Three Hours

Maximum : 75 Marks

SECTION-A (20 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10x2 = 20)

- 1 What are the different types of orbitals?
- 2 Write about reducing agent with example.
- 3 Give any two uses of polyethylene.
- 4 Write any two properties of nicotine.
- 5 What is chemotherapy?
- 6 Define the term 'Chromogen'.
- 7 ■ What is molecularity of a reaction?
- 8 What is enzyme?
- 9 What is meant by air pollution?
- 10 What is chemical oxygen demand (COD)?

SECTION - B (25 Marks)

Answer ALL Questions

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

- 11 a Write a short note on (i) Pauli's exclusion principle (ii) Aufbau principle. (3+2)
OR
b Describe VSEPR theory.
- 12 a Write the preparation, properties and uses of piperine.
• OR
b Discuss the preparation and uses of Teflon.
- 13 a What are anesthetics? Give their uses.
OR
b Discuss about the classification of dyes based on structure. .
- 14 a Derive the expression of rate constant for the first order reaction.
OR
b What are the characteristics of catalytic reaction?
- 15a Discuss the types of pollutants.
OR
b What is acid rain? Write its causes.

SECTION - C (30 Marks)

Answer any THREE Questions

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

- 16 i) Write the shapes of BF_3 , SF_6 , PCl_5 . (6)
- ii) Discuss about different types of orbitals and their shapes. (4)
- 17 Describe the preparation, properties and uses of nicotine. (4+4+2)
- 18 Define the term 'Antisepetic' Discuss the uses of chloramine - T, Iodoform and Dettol.
- 19 i) Write note on complex reactions. (8)
- ii) What is catalytic poisonin? (2)
- 20 i) Describe the various steps involved in the v/ater treatment process. (7)
- ii) Give the definition of BOD. (3)