PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2019
(Third Semester)

Branch- **ZOOLOGY**

CHEMISTRY -1

Time : Three Hours   Maximum : 75 Marks
SECTION-A (20 Marks!
Answer ALL questions
ALL questions carry **EQUAL** marks   (10 x 2 = 20)

1   Define - orbit and orbital.
2   State- Aufbuf principle.
3   Write any two uses of benzene.
4   What is isoprene rule?
5   Give any two examples of Analgesics.
6   Define - Chromophore.
7   What is order of a reaction?
8   Write the types of catalysis.
9   What is global warming?
10   Define-BOD.

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 is oxidation and reduction reactions? Explain.

12 a State and explain the Huckel's rule of Aromaticity.
                        OR
    b How will you prepare piperine? Give its properties.

13 a What are antipyretics and antibiotics? Give examples.
                        OR
    b How will you prepare malachite green and phenolphthalein?

14 a   Distinguish between order and molecularity of a reaction.
                        OR
    b Derive the rate constant for first order reaction.

15 a What is Air pollution? Explain its sources, effects and preventive measures.
                        OR
    b Write a short note on pesticides and insecticides.

SECTION - C (30 Marks)
Answer any **THREE** Questions
ALL Questions Carry **EQUAL** Marks   (3 x 10 = 30)

16   Explain the VSEPR theory with suitable examples.

17   Discuss the preparation and uses of polyethylene, teflon and terylene.

18   Describe the classification of dyes on the basis of application and chemical structure.

19   Define enzyme catalysis. Explain its characteristics and mechanism.

20   Write note on the following
      (a) Acid rain   (4)
      (b) Eutrophication   (3)