PSG COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2024

(Fourth Semester)

Branch - ZOOLOGY

CHEN	IISTRY -	П
CAA.	AALA LAA	-

Time: Three Hours Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks $(5 \times 1 = 5)$

1. EDTA is a

a) Bidentate ligand

b) Hexadentate ligand

c) Monodentate ligand

- d) None of these
- 2. Furan reacts with ammonia in the presence of alumina at 400°C to give

a) Pyridine

- b) Furfural
- c) Pyrrole
- d) Furoic acid

3. A drug which acts as antipyretic is

a) Paracetamol b) Chloroform

- c) Prontosil
 - d) Quinine

4. CH₃COOH + CH₃COONa is an example

a) Basic buffer

- b) Acidic buffer
- c) Neutral buffer
- d) None of these

5. Which one of the following is an excellent green solvent?

- a) CO
- b) CH₃OH
- c) CFCs
- d) H₂O

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks $(5 \times 3 = 15)$

6. a) State chelation. Give an example.

OR

- b) How are the following prepared?
 - i) Triple Superphosphate
- ii) Urea
- 7. a) Discuss the heterocyclic compounds? Give an examples.

OR

- b) How is glycine prepared? Give its use.
- 8. a) Explain the following with examples: i) Analgesics

ii) Antibiotics

OR

- b) Distinguish between antiseptics and disinfectants.
- 9. a) Explain the mechanism of buffer action.

OR

- b) Determination of Oswald's dilution law.
- 10. a) Briefly explain about the non-heme iron-sulphur proteins.

OR

b) Give an account on any three principles of Green chemistry.

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Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

 $(5 \times 6 = 30)$

11. a) Describe the Werner's theory of coordination compounds.

OR

- b) Explain the biologically importance of haemoglobin and chlorophyll.
- 12. a) Analyze the preparation and reactions of pyridine.

OR

- b) Discuss about the structure of proteins.
- 13. a) Elaborate the notes on sulpha drugs.

OR

- b) How are dyes classified based on their mode of applications and structure? Give an examples.
- 14. a) State and explain Kohlrausch's law and its applications.

OR

- b) Illustrate the laws of photochemistry.
- 15. a) Develop the chemistry of Myoglobin.

OR

b) Discuss the toxicity of heavy metals.

Z-Z-Z

END