

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2018
(Second Semester)

Branch – NUTRITION, FOOD SERVICE MANAGEMENT & DIETETICS

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 applications of TLC.
- 2 What is mean by sublimation?
- 3 Distinguish between double salt and co-ordination compounds.
- 4 What are peracids of sulphur? Give examples.
- 5 How is glycine prepared? Give its properties and uses.
- 6 What is mean by denaturation of proteins?
- 7 Define specific conductance, and molar conductance.
- 8 What is mean by parallel and reversible reactions? Give examples.
- 9 Define pollution. How is it classified?
- 10 What do you mean by acid rain? Mention its harmful effects.

SECTION - B (25 Marks)

Answer ALL Questions

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

- 11 a How are organic compounds purified by crystallization and steam distillation methods?
OR
b Write the twelve principles of green chemistry. Give its applications.
- 12 a What are ligands? How are they classified? Give an example for each type.
OR
b Explain the biological role of hemoglobin and chlorophyll.
- 13 a Discuss about preparation, properties and uses of furan.
OR
b What are proteins? How are they classified? Write any three analytical tests for proteins.
- 14 a State and explain (i) Ohm's law (ii) Oswald's law and (iii) Faraday's first law of electrolysis.
OR
b Define p^H and buffer solution. Explain their importance.
- 15 a i) Define water pollution? How is it classified? (2)
ii) Define DO, BOD and COD. (3)
OR
b Describe the contamination of foods with toxic chemicals, pesticides and insecticides in detail.

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

- 16 a) How can you purify a liquid by fractional distillation method? (4)
- b) Explain the principle and applications of paper chromatography and ion-exchange chromatography. (6)
- 17 a) Explain the preparation, properties and uses of Caro's acid. (7)
- b) Discuss the postulates of Werner's co-ordination theory. (3)
- 18 a) Discuss the primary and secondary structure of proteins.
- b) What are amino acids? How are they classified? Give examples.
- 19 a) State and explain Kohlrausch's law with suitable examples.
- b) What is the relationship between specific conductance and equivalent conductance? How can you determine the conductance of a solution?
- 20 What are the sources of air pollution and soil pollution? Explain the factors affecting air and soil pollution.

Z-Z-Z

END