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PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2017
(Second Semester)

Branch - **NUTRITION, FOOD SERVICE MANAGEMENT**

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 : Define Green Chemistry. Give an example for green synthesis.
2 Write any two methods used for purification of solids and liquids.
3 How is Marshall's acid prepared?
4 What are ligands? How are they classified? Give an example for each type.
5 Write any two colour tests for protein.
6 What are hetero cyclic compounds? How are they classified? Give examples for each type.
7 Define P^H.
8 State and explain Kohlrausch law.
9 Define COD and BOD.
10 What is mean by pollution? How is it classified?

SECTION - B *(25* Marks)
Answer ALL Questions
ALL Questions Carry EQUAL Marks (5 x 5 = 25)

11 a Explain the principles of fractional crystallization and fractional distillation methods.

OR

b Define chromatography. How is it classified? Write the basic principle and applications of ion-exchange chromatography.

12 a How is sodium hydro sulphite prepared? Explain their properties and uses.

OR

b What is mean by Chelation? Mention its industrials importance. What are the salient features of Wernerls Co-ordination theory?

13 a Explain the preparation, properties and uses of Pyridine.

OR

b What are amino acids? How are they classified? Describe the preparation, properties and uses of Glycine.

14 a Define conductance, specific conductance, molar conductance and equivalent conductance. What is the effect of dilution on conductance?

OR

b What are the biological importance of Hemoglobin and Chlorophyll.

15 a Define the term soil pollution. What are the factors that affecting soil pollution?

OR

b What is mean by acid rain and global warming? Explain in detail.

Cont...

SECTION - C (30 Marks)

Answer any **THREE** Questions

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

16 Write the 12 principles of Green chemistry. What are the uses of Green Chemistry?

17 a) How is Sodium Meta bisulphate prepared? Explain their properties and uses,

b) How is Caro's acid prepaed? Mention their properties and uses.

18 a) What are proteins? How are they classified? Discuss about primary, secondary structure of proteins. (7)

b) Define co-ordination compound. Give any four examples. (3)

19 a) State and explain (i) Faraday's law of electrolysis
(ii) Ohm's law
(iii) Ostwald's dilution law (8)

b) What is mean by consecutive reactions and chain reactions? Give examples. (2)

20 Discuss about following wastewater treatment methods:

(a)Primary (b) Secondary and (c) Tertiary treatment

Z-Z-Z END