

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

BVoc DEGREE EXAMINATION DECEMBER 2022  
(Second Semester)

Branch – FOOD PROCESSING TECHNOLOGY

**CHEMISTRY - II**

Time: Three Hours

Maximum: 50 Marks

**SECTION-A (5 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

- The process of separation of solid organic compounds is known as
  - differential extraction
  - sublimation
  - crystallization
  - distillation
- Identify in ascending paper chromatographic technique the solvent will rise only \_\_\_\_\_ in.
  - 8-9
  - 7-8
  - 6-7
  - 5-6
- \_\_\_\_\_ mineral plays an important function in a number of reproduction processes.
  - Copper
  - Zinc
  - Iodine
  - phosphorus
- Choose an acidic amino acid from the following
  - lysine
  - cystine
  - aspartic acid
  - aminoacetic acid
- Which is the most common used coagulant?
  - Coal
  - Ferric sulphate
  - Limestone
  - Alum

**SECTION - B (15 Marks)**

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

- a) Classify the methods of sampling.  
(OR)  
b) Explain the principle and process of crystallisation.
- a) Explain the centrifugation method of separation.  
(OR)  
b) How will you locate the individual components in TLC?
- a) Explain the structure–activity relationship of phenolic antioxidants.  
(OR)  
b) Outline the importance of minerals and mineral salts.
- a) How are enzymes classified? Give examples.  
(OR)  
b) Explain the role of RNA in protein synthesis.
- a) Write notes on incineration and pyrolysis in solid waste management.  
(OR)  
b) Outline the preliminary steps involved in the waste water treatment.

**SECTION -C (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

11. a) Elucidate the extraction of organic compounds with examples.  
(OR)  
b) Discuss the principle and process of distillation.
12. a) Elucidate the principle of chromatography and its classification.  
(OR)  
b) Discuss the principle and process of gas chromatography with neat diagram.
13. a) Discuss the possible mechanisms for antioxidant action.  
(OR)  
b) Summarize the various organic & inorganic preservatives.
14. a) Discuss the factors influencing the mechanism of enzyme action.  
(OR)  
b) Discuss the double helix structure of nucleic acids.
15. a) Analyse the classification of pollution and explain the types of pollutants.  
(OR)  
b) Discuss the various steps involved in waste water treatment.

Z-Z-Z

END