

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

B.Voc DEGREE EXAMINATION DECEMBER 2019  
(Second Semester)

Branch - FOOD PROCESSING TECHNOLOGY

**CHEMISTRY - II**

Time: Three Hours

Maximum: 75 Marks

**SECTION-A (10 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks (10 x 1 = 10)

- 1 A substance which decomposes below its boiling point can be best purified by \_\_\_\_\_ .  
(i) Simple distillation (ii) Steam distillation  
(iii) Fractional distillation (iv) Distillation under reduced pressure
- 2 Condensed solid produced during sublimation is \_\_\_\_\_ ,  
(i) Crystals (ii) Sublimate  
(iii) Residue (iv) Insoluble
- 3 In paper chromatography, \_\_\_\_\_  
(i) Mobile phase is a liquid and the stationary phase is a solid  
(ii) Mobile phase is a solid and the stationary phase is a liquid  
(iii) Both phases are liquids  
(iv) Both phases are solid
- 4 Chromatography is used to separate  
(i) Solution (ii) Mixtures  
(iii) Molecules (iv) Atoms
- 5 Which of the following is the function of chemical additive?  
(i) Preservation (ii) Serve as nutritional supplement  
(iii) Color modifier (iv) All of these
- 6 Which of the following is a naturally occurring antioxidant?  
(i) Hydroquinone (ii) Ascorbic acid  
(iii) Vitamin E (iv) All of these
- 7 The two strands in DNA double helix are joined by  
(i) Hydrogen bond (ii) Covalent bond  
(iii) Ionic bond (iv) All of these
- 8 "LOCK AND KEY" theory of enzyme was proposed by \_\_\_\_\_.  
(i) Fischer (ii) Arrhenius  
(iii) Kuhne (iv) Koshland
- 9 Problem of solid waste disposal can be reduced through \_\_\_\_\_.  
(i) Recycling (ii) Lesser pollution  
(iii) More timber (iv) Population control
- 10 Process in which water is passed through filter beds of sand and gravel to remove smaller particles of dirt is called  
(i) Coagulation (ii) Sedimentation  
(iii) Filtration (iv) Chlorination

Cont...

**SECTION - B (35 Marks)**

Answer **ALL** Questions

**ALL** Questions Carry **EQUAL** Marks ( 5 x 7 = 35)

- 11 a Discuss the process of purification of solid by sublimation method.  
OR  
b Write about extraction of organic compounds.
- 12 a Explain about paper chromatography.  
OR  
b Discuss thin layer chromatography.
- 13 a i) Write the importance of minerals and mineral acids.  
ii) Discuss the classification of minerals.  
OR  
b Discuss about the classification of food colourants and its chemistry.
- 14 a Discuss the functions of DNA.  
OR  
b i) What are enzymes?  
ii) What are the factors that influencing enzyme action.
- 15 a Discuss the preliminary treatment used in waste water treatment.  
OR  
b Write about the classification of solid waste.

**SECTION - C (30 Marks)**

Answer any **THREE** Questions

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

- 16 Discuss the method of purification of liquids by various distillation process.
- 17 Explain the theory and instrumentation of gas chromatography.
- 18 Explain the different types of organic preservatives.
- 19 i) Explain the role of RNA in protein synthesis,  
ii) Discuss the structure and functions of RNA.
- 20 Discuss the disposal method of waste by composting and sanitary land filling process.

Z-Z-Z

END