

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

BVoc DEGREE EXAMINATION DECEMBER 2022  
(First Semester)

Branch – FOOD PROCESSING TECHNOLOGY

CHEMISTRY - I

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- The chemical that counteracts the effect of poison is  
(i) antibiotic (ii) antidote  
(iii) antigen (iv) antiseptic
- Bond formed between a metal and non-metal is referred as  
(i) electrovalent bond (ii) hydrogen bond  
(iii) covalent bond (iv) metallic bond
- The substance that resists change in pH of a solution is called as  
(i) oxidizing agent (ii) Indicator  
(iii) Reducing agent (iv) Buffer
- The terpenoid having a strong lemon like odour is  
(i) menthol (ii) camphor  
(iii) citral (iv) geraniol
- Identify the natural polymer from among the following  
(i) nylon (ii) LDPE  
(iii) terylene (iv) Cotton

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- a Summarise the various safety and hygienic procedures to be followed while handling chemicals.  
OR  
b Describe the various heating methods to be followed in the laboratory.
- a Explain the VSEPR theory and its postulates.  
OR  
b Compare acids and bases based on Arrhenius, Lowry- Bronsted and Lewis theory.
- a Classify solutions and bring out the methods of expressing concentration of a Solution.  
OR  
b Explain about Buffer solutions and its importance in biological systems.

Cont...

- 9 a Classify alkaloids and bring out the properties of alkaloids.  
OR  
b Explain flavonoids and its importance in fruits and vegetable.
- 10 a Outline the properties of plastic.  
OR  
b Describe the control measures for pest control.

**SECTION -C (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Elucidate on the various stirring and filtration techniques employed in the lab.  
OR  
b Discuss the various types of errors.
- 12 a Explain the properties of various chemical bonds.  
OR  
b Elaborate on the mechanism of Auto-oxidation.
- 13 a Summarise on conductance of a solution and differentiate between various conductors.  
OR  
b Elucidate the postulates of Arrhenius theory of electrolysis.
- 14 a Explain the classification and isolation of terpenoids.  
OR  
b Discuss on Anthocyanin and its synthesis in fruits and vegetables.
- 15 a Outline the various classification of polymers.  
OR  
b Summarise the important categories of pesticides.

Z-Z-Z

END