

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

- BVoc DEGREE EXAMINATION DECEMBER 2019
(First Semester)

Branch - FOOD PROCESSING TECHNOLOGY

CHEMISTRY -1

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

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

- 1 Which of the following swallowed poison should need induced vomiting?
(i) Washing soda (ii) Benzene
(iii) Phenol (iv) Formaldehyde
- 2 , The square of standard deviation is _____ .
(i) Precision (ii) Variance
(iii) Absolute deviation (iv) Relative standard deviation
- 3 Covalent molecules are usually help in crystal structure by
(i) dipole-dipole attraction (ii) electrostatic attraction
(iii) hydrogen bonds (iv) van der Waals forces
- 4 In the transition of Cu atoms to Cu²⁺ ions, there is a decrease in the _____
(i) atomic mass (ii) atomic number
(iii) number of valence electrons (iv) equivalent mass
- 5 Electrolytic conduction is due to the movement of _____ .
(i) electrons (ii) atoms
(iii) ions (iv) electrons as well as ions
- 6 Find the pH of HCl having 0.01 mol/dm³ of hydrogen ion.
(i) 1 (ii) 2
(iii) 3 (iv) 4
- 7 Which of the following is less toxic among them?
(i) coniine (ii) nicotine
(iii) piperine (iv) atropine
- 8 Identify the one which is not containing anthocyanins.
(i) black berries (ii) banana
(iii) plums (iv) prunes
- 9 _____ polymer is used in the manufacture of synthetic fibre.
(i) PVC (ii) Teflon
(iii) Dacron (iv) Polyethylene
- 10 Bordeaux mixture is a
(i) rodenticide (ii) insecticide
(iii). fungicide (iv) herbicide

Cont..

SECTION - B (35 Marks)

Answer ALL Questions

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

- 11 a Distinguish between Precision and accuracy,
OR
b Enlist any five first aid techniques during accidents in laboratory.
- 12 a BF_3 acts as a Lewis acid whereas NF_3 doesn't. Explain.
OR
b Which of the following compounds are hydrogen bonded and explain?
i) CO_2 ii) CH_3 iii) H_2O iv) NH_3
- 13 a Describe the importance of buffer solution in biological systems.
OR
b Classify the various types of electrolytes with examples.
- 14 a Explain isoprene rule in Terpenoids.
OR
b Classify the flavones.
- 15 a Describe the applications of plastics in food packaging.
OR
b Explain the residual analysis of pesticides.

SECTION - C (30 Marks)

Answer any THREE Questions

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

16. a) List out the rules to be followed in storage and handling of chemicals,
b) How will you calibrate pipette in titrimetry?
17. Explain the following: i) Auto oxidation ii) Lewis concept of acids and bases iii) Bronsted-Lowry concept
18. Enumerate the effects of electrolytes in blood pressure and osmotic pressure in living systems.
19. a) Discuss the classification of alkaloids.
b) Enumerate the biological functions of coniine.
20. Summarize the ill effects of pesticide and how would you control pesticide poisoning of environment.