



SAIVA BHANU KSHATRIYA COLLEGE
(Aruppukottai Nadargal Uravinmurai Pothu Abi Viruthi Trustukku Pathiyapattathu)
ARUPPUKOTTAI
DEPARTMENT OF CHEMISTRY
QUESTION BANK

Name of the Department :	Chemistry	UG / PG :	UG
Semester (UG - III & V; PG - III) :	V	Subject Code :	SCHJC53
Name of the Subject :	Inorganic, Analytical & Applications of Computer in Chemistry		

Section A (Multiple Choice Questions)

Unit I: (Inorganic Chemistry)

- Acetic acid is weak acid because
a. Its aqueous solution is acidic b. It is highly ionized c. It is weakly ionized d. It contains the COOH group.
- Which of the following compound is most acidic?
a. Cl_2O_7 b. P_4O_{10} c. SO_3 d. B_2O_3
- is an example of Arrhenius acid
a. H^+ donar b. OH^- donar c. H^+ acceptor d. OH^- acceptor
- is a non aqueous solvent
a. Water b. Ammonia c. Water & Ammonia mixture d. water & HF mixture
- Electron donar is -----
a. Lewis acid b. Bronsted acid c. Arrhenius acid d. Lux Flood acid

Unit II: (Bioinorganic Chemistry)

- A Heme enzyme
a) Co b) Fe c) Hg d) Ag
- Co^{3+} ion is present in
a) Chlorophyll b) Hemoglobin c) Myoglobin d) Vitamin B₆
- Which of the following vitamins is also known as cobalamin?
a) Vitamin B11 b) Vitamin B2 c) Vitamin B6 d) Vitamin B12
- In the plants, chlorophyll is also called as _____
a) Photoreceptor b) Neuroreceptor c) Stimulator d) Enzyme
- Cisplatin is _____ shaped structure.
a) Tetrahedral b) Square planar c) Octahedral d) Triangle

Unit III: (Inorganic Polymers)

- Polysilicon is an example of-----
a. Organic polymer b. Inorganic polymer c. Both a & b d. None of these
- is the single unit of silicones
a. SiO_4^- b. SiO_4^{4-} c. SiO_4^{2-} d. SiO_4^{4+}
- Silicon nitride is an example of-----
a. Organic polymer b. Inorganic polymer c. Both a & b d. None of these
- Silicones are called inorganic polymers due to absence of _____ in the main back bone chain
a) Nitrogen atom b) Oxygen atom c) Carbon atom d) Hydrogen atom
- Which of the following is electrical conducting polymer
a) polymeric sulphur nitride b) linear polymers c) crosslinked polymers d) branched polymers

Unit-IV (Analytical Chemistry)

- The number of significant figures in 0.012 is
a) 3 b) 2 c) 1 d) 4
- The quality of being exact is called as
a) precision b) accuracy c) error d) average



SAIVA BHANU KSHATRIYA COLLEGE
(Aruppukottai Nadargal Uravinmurai Pothu Abi Viruthi Trustukku Pathiyapattathu)
ARUPPUKOTTAI
DEPARTMENT OF CHEMISTRY
QUESTION BANK

3. Which of the following cannot be used as an adsorbent in Column adsorption Chromatography ?
a) Magnesium oxide b) Silica gel c) Activated alumina d) Potassium permanganate
4. Adulterant in milk is _____
a) Urea b) Formalin c) Ammonium sulphate d) All the above
5. Why are adulterants added?
a) To increase shelf-life of products. E.g. Urea b) To improve flavour color and appearance c) To sell lesser quantity at the same price d) All the mentioned

Unit V: (Application of computer in Chemistry)

1. -----Language is middle level language.
(a) C (b) C++ (c) Java (d) Oracle
2. -----keyword used for integer
(a) int (b) float (c) char (d) sting
3. -----symbol indicates the beginning of the program
a. [(b)] (c) { (d) }
3. Structure oriented language is -----language
(a) C++ (b) C (c) Java (d) Oracle
4. Collection of information & details are known as-----
(a) Data (b) Program (c) Software (d) Language
5. -----keyword used for decimal value
(a) int (b) float (c) char (d) sting

Section B (7 mark Questions)

Unit I: (Inorganic Chemistry)

1. Describe Arrhenius acid base concept with example?
2. Write notes on Hard and Soft Acid Base (HSAB) concept.
3. Describe Lux-Flood acid base concept with example.
4. Compare the relative acid base strength with example.
5. Write notes on Lewis acid & its properties with example.

UNIT:II (Bioinorganic Chemistry)

1. Discuss the structure of Myoglobin.
2. Describe the biological role of Ca^{2+} ion.
3. Write the structure of oxaliplatin in detail.
4. Write the significance of carboplatin in detail.
5. Why metalloporphyrins are important in biological system?

Unit III: (Inorganic Polymers)

1. List out the characteristics of Inorganic polymer.
2. Write the preparation, properties and uses of Silicones.
3. List out the characteristics of Glass transition temperature.
4. Write the uses of polymeric sulphur? Explain in detail.
5. Write the preparation of polymeric sulphur nitride.

Unit-IV (Analytical Chemistry)

1. Write a note on significant figure.
2. Explain the curve fitting method
3. Discuss the principles of paper chromatography.
4. Describe the principles and applications of ion exchange chromatography.



SAIVA BHANU KSHATRIYA COLLEGE
(Aruppukottai Nadargal Uravinmurai Pothu Abi Viruthi Trustukku Pathiyapattathu)
ARUPPUKOTTAI
DEPARTMENT OF CHEMISTRY
QUESTION BANK

5. Explain about rejection of experimental data with example.

Unit V: (Applications of Computer in Chemistry)

1. Write notes on Input/Output devices with example.
2. Describe the peripheral units in Components of Computer.
3. Write a C program on Half life period for first order reaction.
4. Write notes on Keywords, Operators & Variables in C program.
5. Describe the structure of C program.

Section C (10 mark Questions)

Unit I: (Inorganic Chemistry)

1. Explain Bronsted Lowry concept with examples.
2. Liq.NH₃ as Non aqueous solvent. State & Explain the statement.

UNIT:II (Bioinorganic Chemistry)

1. Discuss the structure and biological function of chlorophyll.
2. Write a detail note on biochemistry of Ca and Zn.

Unit:III (Inorganic Polymers)

1. Describe about preparation, properties and uses of polymeric sulphur nitride.
2. Explain the preparation, properties and uses of Silicon carbide.

Unit-IV (Analytical Chemistry)

1. Write a detail note on classification of errors.
2. Explain the following sweetners, preservatives and colourant.

Unit V: (Applications of computer in Chemistry)

1. Write a C Program to calculate the ionic strength of unknown Calcium chloride solution.
2. Write a C program to calculate RMS velocity & to calculate the strength of unknown solution using Beer-Lambert's law.