

Reg. No. :

Name :

Second Semester B.Sc. Degree Examination, September 2023

First Degree Programme under CBCSS

Chemistry

Foundation Course II

CH 1221 : CHEMISTRY – ITS ORIGIN METHODOLOGY AND IMPACTS

(2020 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – A

(Answer **all** questions. Each question carries **1** mark)

1. Write two branches of Chemistry.
2. What you meant by junk food?
3. Who is the father of electrochemistry?
4. Write one advantage of MRI scanning.
5. Name an indicator that is used in redox titrations.
6. Write one example for primary standard.
7. What is meant by hypothesis, write one example?
8. What is the peculiarity of a SDF file format?
9. Define saponification value.
10. What is meant by ISSN number?

(10 × 1 = 10 Marks)

P.T.O.

SECTION – B

(Answer any **eight** questions. Each question carries **2** marks)

11. Explain the role of food preservatives.
12. Distinguish between accuracy and precision.
13. Define alchemy. How it helps in the evolution of modern chemistry.
14. Explain redox titrations with a suitable example.
15. Describe about any two chemical data bases.
16. How can you differentiate between a theory and law?
17. Give two names of educational software.
18. Name two graphical tool used for drawing graph.
19. What is Molekal?
20. What is meant by solubility and write its application.
21. Write two examples for acid-base indicators.
22. Draw two symbols used for hazard warning.

(8 × 2 = 16 Marks)

SECTION – C

(Answer any **six** questions. Each question carries **4** marks)

23. What are artificial sweetners? Name two artificial sweetners and draw their structure.
24. Give an account on various types of pigments.
25. Describe the various steps in photosynthesis.

26. Write on different types of commonly used explosives.
27. Describe the theory of acid - base indicators using suitable examples.
28. Write a description on distribution of random errors.
29. Discuss the basic principles and applications of gas chromatography.
30. Explain precipitation titrations with examples.
31. Describe on molecular visualization tools.

(6 × 4 = 24 Marks)

SECTION – D

Answer any **two** questions. **Each** question carries **15** marks.

32. (a) Describe on Green solvents and their advantages.
(b) How micro level analysis can be implemented as green chemistry protocol.
33. Comment on how Chemistry emerged as a discipline of science.
34. (a) Discuss about the nuclear tracer experiments in medical diagnostic applications.
(b) Explain briefly paper and partition chromatography.
35. Explain gravimetry method? Discuss briefly on gravimetric estimation of Barium.

(2 × 15 = 30 Marks)