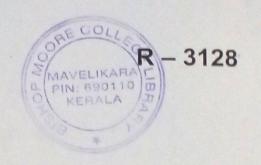
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Second Semester B.Sc. Degree Examination, September 2023 First Degree Programme under CBCSS

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)

- Write two branches of Chemistry.
- 2. What you meant by junk food?
- 3. Who is the father of electrochemistry?
- 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?

 $(10 \times 1 = 10 \text{ Marks})$

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.
- 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?
- 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.

 $(8 \times 2 = 16 \text{ Marks})$

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.
- Explain precipitation titrations with examples.
- 31. Describe on molecular visualization tools.

 $(6 \times 4 = 24 \text{ Marks})$

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 x 15 = 30 Marks)