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Reg. No. : .....

Name : .....

Second Semester B.Sc. Degree Examination, August 2024

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. Who is the father of Modern Chemistry?
2. Write one artificial sweetener.
3. What is TFM and write its importance in soap?
4. Who was the founder of green chemistry?
5. Write one example for super critical fluids.
6. What is meant by a theory, explain with example?
7. Greeks believed that matter composed of four basic materials. Which are they?
8. Give an example for secondary standard in volumetric analysis.

P.T.O.

9. Name the indicator used in complexometric titration

10. Define common ion effect.

(10 × 1 = 10 Marks)

SECTION – B

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

11. What are cationic detergents?

12. Explain thin layer chromatography.

13. What is principle behind fractional distillation?

14. What is meant by co-precipitation and post-precipitation?

15. How the precision in the result of a scientific experiment is important?

16. What is port land cement?

17. Briefly write about ISBN.

18. What is meant by impact factor of a journal?

19. Give the basic principle of ion-exchange chromatography.

20. Write two applications of luminescent paints.

21. What is meant by Materials safety data sheet?

22. Write two examples for explosives.

(8 × 2 = 16 Marks)

SECTION – C

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

23. Briefly describe the research work done by Antoine Lavoisier in the evolution of modern chemistry.

24. Write a note on photovoltaic cells with a neat diagram.

25. Describe on various emergency procedures that should be adopted during chemical spillage.

26. Discuss the theory of redox titrations with suitable examples.

27. Give a short account on paints and its formulations.

28. Discuss the theory of metallochromic indicators.

29. Describe on micro-scale experiments, its advantages.

30. Write a note on various types of chemical software's.

31. Explain different types of errors and the methods used to reduce systematic error.

(6 × 4 = 24 Marks)

SECTION – D

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

32. Describe on various types educational software's and molecular visualisation tools used in scientific research. Comment on its advantages also. **15**

33. (a) What are different types food preservatives? Explain with examples.

    (b) Briefly describe the role of chemistry in the field of Medicine

7+8=15

34. Discuss on major contributions of great chemists viz. Friedrich Wöhler, Mendeleev, Michael Faraday and Marie SkBodowska-Curie on developing modern Chemistry. **15**

35. (a) Explain the principle and applications of thin layer chromatography.

    (b) Discuss about different types of green solvents. What are its uses and advantages?

7+8=15

(2 × 15 = 30 Marks)
