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Reg. No. : .....

Name : .....

Second Semester B.Sc. Degree Examination, May 2020

First Degree Programme Under CBCSS

Chemistry

Foundation Course II

CH 1221 – METHODOLOGY AND PERSPECTIVES OF SCIENCES AND GENERAL INFORMATICS

(2013-2016 Admissions)

Time : 3 Hours Max. Marks : 80

SECTION – A

Answer in one sentences or two. Answer ALL questions.

1. What is a pi diagram?
2. What is the importance of models in science?
3. What is meant by Globalization in Science?
4. Define alchemy.
5. What are the two major contributions of Michel Faraday to science?
6. What is meant by plagiarism in science?
7. Explain MSDS.

8. What is IPR in patents?

9. Explain SMILES of molecules.

10. Mention any two internet resources in chemistry.

(10 × 1 = 10 Marks)

SECTION – B

Short answer

Answer **any eight** questions.

11. What is the difference between law and hypothesis?

12. What are the depositories of scientific information? Explain.

13. Differentiate between accuracy and precision.

14. What are the different branches of chemistry?

15. Explain the induction and deduction method in science.

16. What are the different communication networks used in education?

17. Mention the different file formats used in cheminformatics.

18. Explain the term copy right and patents.

19. Explain the necessity of units and dimensions in science.

20. What is INFLIBNET? What is it used for?

21. Mention any two structure drawing softwares in chemistry.

22. What is standard deviation?

(8 × 2 = 16 Marks

SECTION – C

Short essay

Answer **any six** questions.

23. Explain the significance of simulations and virtual labs in science.

24. Discuss the different components of a chemistry project.

25. Explain QSAR.

26. Discuss the importance of Information technology in teaching and learning.

27. Explain any two statistical methods of data analysis.

28. Mention the different atom models and its draw backs.

29. Explain the Antony Lavoisier's contribution to modem chemistry.

30. Discuss the advantages of VIRTUAL LABS OF MHRD.

31. Explain the different choices of selection of instruments.

(6 × 4 = 24 Marks)

SECTION – D

Long essay.

Answer **any two** questions.

32. Explain the different steps involved in the design of science experiments.

33. Discuss the science strategies to meet the challenges in the twenty first century.

34. Explain the different stages of data handling in science.

35. Discuss the different stages of research in chemistry.

(2 × 15 = 30 Marks)