



QP CODE: 24801163



24801163

Reg No : .....

Name : .....

**INTEGRATED MSC DEGREE EXAMINATION, FEBRUARY 2024**

**First Semester**

INTEGRATED MSC BASIC SCIENCE-CHEMISTRY

**CORE - ICH1CR02 - ELEMENTARY TO RESEARCH IN CHEMISTRY - I**

2020 Admission Onwards

53FE6544

Time: 3 Hours

Weightage: 30

**Part A (Short Answer Questions)**

Answer any **eight** questions.

Weight 1 each.

1. Explain the contribution of Robert Boyle in the evolution of chemistry.
2. Define nanotechnology.
3. What is the application of chemistry in cosmetics.
4. What is the significance of research?
5. Which are the steps involved in scientific process?
6. A good scientist is discovery prone. Do you agree with this. Why?
7. What is the difference between law and hypothesis?
8. How will you dispose laboratory waste?
9. Why is it important to know the hazard symbols?
10. Mention some toxic effect of chromates.

(8×1=8 weightage)

**Part B (Short Essay/Problems)**

Answer any **six** questions.

Weight 2 each.

11. Antoine Lavoisier disproved the prevalent Phlogiston theory of combustion. Explain.
12. What is the change in energy when an electron relaxes from the n=3 state to n=2 state? Is energy absorbed or emitted? What is the wavelength of light associated with this transition?





13. Explain the importance of chemistry in industry.
14. How do you define a research problem? Give three examples to illustrate your answer.
15. Write note on falsification of hypothesis.
16. What are explosive chemicals?
17. List some immediate steps taken after a chemical burn.
18. What are the hazards caused by halogens ?

(6×2=12 weightage)

**Part C (Essay Type Questions)**

*Answer any **two** questions.*

*Weight 5 each.*

19. Account on the interdisciplinary areas involving chemistry.
20. Discuss the applications of chemistry in different fields.
21. Explain the law of chemical combination with examples?
22. Define carcinogens and how it is stored and also the safety measures in dealing with the same. what kinds of risks might you encounter in labs?

(2×5=10 weightage)

