



QP CODE: 25804438	 25804438	Reg No :
		Name :

INTEGRATED MSc DEGREE EXAMINATION, OCTOBER 2025

Fifth Semester

INTEGRATED MSc BASIC SCIENCES - CHEMISTRY

CORE - ICH5CR01 - ENVIRONMENTAL STUDIES AND HUMAN RIGHTS

2020 Admission Onwards

74352687

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. Why is public awareness about the environment crucial for addressing environmental issues?
2. How can sustainable land management practices help to combat desertification?
3. What is ecological succession, and how can it be defined?
4. What are some strategies for promoting water conservation in households, businesses, and public spaces?
5. How does the Wildlife Protection Act promote establishing and managing protected areas and wildlife sanctuaries?
6. What do you mean by smog? Explain with examples.
7. What are the major sources of marine pollution?
8. How does arsenic affect enzyme activity?
9. What is mass defect of a nucleus ? Explain the relation between binding energy and mass defect of the nucleus.
10. Explain the concept of writs, such as habeas corpus and mandamus, and how they ensure the protection of fundamental rights.

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. Discuss the role of individuals in promoting sustainable agriculture practices among the modern agricultural methods to protect soil resources and food production.





12.	How are food chains interconnected in an ecosystem?
13.	What are some examples of successful resettlement and rehabilitation programs that have addressed the problems and concerns effectively?
14.	How does the Environment Protection Act promote sustainable development and the protection of the environment?
15.	Write a short note on the causes of water pollution.
16.	How does lead interfere with enzyme function, and what are the consequences of this interference?
17.	Brief out the nuclear shell model and give evidences for the nuclear shell model.
18.	List and briefly explain the six fundamental rights guaranteed by the Indian Constitution.
(6×2=12 weightage)	
Part C (Essay Type Questions)	
<i>Answer any two questions.</i>	
<i>Weight 5 each.</i>	
19.	Discuss the challenges associated with the use and over-utilization of surface water and groundwater sources. Highlight the consequences of unsustainable water extraction practices on ecosystems, water availability, and human well-being.
20.	Which are the different types of ecosystems? Explain the features of each.
21.	Investigate the role of landfill and dumping in soil pollution. Explore the types of waste materials that are commonly disposed of in landfills and dumping sites, their leaching potential, and the resulting soil contamination.
22.	Explain in detail with schematic diagram a) Nuclear thermal reactor b) Fast breeder reactor b) Atom bomb and c) Hydrogen bomb
(2×5=10 weightage)	

