



‘समानो मन्त्रः समितिः समानी’

**UNIVERSITY OF NORTH BENGAL**  
B.Sc. Honours 6th Semester Examination, 2023

**DSE-P4-CHEMISTRY**

**INDUSTRIAL CHEMICALS AND ENVIRONMENT**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.*

**Answer any *four* questions from the following**

10×4 = 40

1. (a) What do you mean by sustainable development? 3  
(b) What is “Green hydrogen”? Discuss about its possible uses, storage and hazards. 2+3  
(c) What is borax? 2
2. (a) Describe the manufacturing process of cast iron. What is the difference between cast and wrought iron? 4+1  
(b) Write note on alloys of nickel. 3  
(c) What is the common process to obtain ultrapure metal? Name one ultrapure metal that is used for semiconductor technology. 1+1
3. (a) Discuss briefly the biogeochemical cycles of carbon. 5  
(b) Describe environmental effects of ozone. 3  
(c) What are the Greenhouse gases? 2
4. (a) Discuss about the major sources of air pollution. 4  
(b) What are the effects of nuclear pollution? How can this be prevented? 2+3  
(c) What is biocatalysis? 1
5. (a) Describe briefly the sources and nature of water pollutants. 4  
(b) What are the advantages and disadvantages of solar energy? 2+2  
(c) What is COD? 2

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