

RAMAKRISHNA MISSION VIDYAMANDIRA

(Residential Autonomous College affiliated to University of Calcutta)

B.A./B.Sc. SIXTH SEMESTER EXAMINATION, JUNE 2022

THIRD YEAR [BATCH 2019-22]

INDUSTRIAL CHEMISTRY (HONOURS)

Paper : XIII [CC13]

Date : 13/06/2022

Time : 11 am – 1 pm

Full Marks : 50

Answer **any five** of the following questions:

[5×10]

1. Describe the heterogeneous reactions taking place in the stratosphere leading to ozone depletion over Antarctica. State major effects of ozone depletion on man and biodiversity. [6+4]
2. Enumerate the different steps of Solid Waste Management. How did the MIC escape with a tremendous velocity during the Bhopal Gas Tragedy? [5+5]
3. Give an account of the sources of high-level radwastes. Mention the strategies you would like to adopt for management and disposal of such wastes. [5+5]
4. "Nitrogen Cycle plays a pivotal role for increasing soil fertility" – justify. Explain the significance of Water Cycle for the sustainability of our Ecosystem. [5+5]
5. Briefly mention the abiotic factors that affect the dissolved oxygen concentration in water. What is 'Dead Zone'? Elaborate how biomagnification could a fatal disaster like 'Minamata' in Japan. [6+1+3]
6. Why did RBMK, the reactor plant in Chernobyl get damaged? Mention the human errors behind this man-made disaster. [6+4]

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