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**MEV-013**

**M. SC. (ENVIRONMENTAL SCIENCE)  
(MSCENV)**

**Term-End Examination**

**December, 2023**

**MEV-013 : ENVIRONMENTAL CHEMISTRY**

*Time : 3 Hours*

*Maximum Marks : 100*

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**Note :** (i) Answer any **ten** questions.

(ii) Each question carries **10** marks.

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1. Explain hydrological cycle with suitable diagram. What is the significance of hydrological cycle on environment ?
2. What is adsorption ? Explain the mechanism of adsorption with suitable examples.
3. What is catalysis ? Explain the catalytic cycle with a suitable diagram.
4. Explain the following in detail :
  - (a) First order reaction
  - (b) Pseudo order reaction

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5. How do aromatic hydrocarbons pollute the environment ? Explain.
6. Briefly explain about anti-knocking agents.
7. What is the green chemistry ? Explain its twelve principles.
8. Explain the concept of atom economy using a suitable example.
9. Differentiate between the following :
  - (a) Freshwater ecosystem and marine ecosystem
  - (b) Surface water and ground water
10. What are the water treatment methods ? Explain coagulation and flocculation methods with suitable examples.
11. Describe ion exchange process in the soil.
12. What is global warming ? How is it different from green house effect ? What are the environmental effects of global warming ?
13. What is acid deposition ? What are the causes and effects of acid deposition ?
14. What is the working principle of gas liquid chromatography ? What is the advantage of GLC over column chromatography ?

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