

No. of Printed Pages : 2

REVE-001

**Ph. D. IN ENVIRONMENTAL SCIENCE
(PHDEV)**

Term-End Examination

December, 2024

REVE-001 : ENVIRONMENTAL CHEMISTRY

Time : 3 Hours

Maximum Marks : 100

Note : Answer any *five* questions. All questions carry equal marks.

1. What are the principles of Green Chemistry ?
Explain in detail.
2. Define the following terms. What are their applications in your research proposal ?
Explain :
 - (i) Pollutant
 - (ii) Sink
 - (iii) Receptor
 - (iv) Sampling
 - (v) Global Warming

3. Describe the components of gas chromatography and explain its applications in environmental research.
4. Describe the method of water purification with ion exchange resins.
5. Give a detailed account of analytical technologies in the environmental research.
6. Explain the toxic effects of the following metals on enzymes :
 - (i) Cadmium
 - (ii) Arsenic
 - (iii) Mercury
 - (iv) Uranium
 - (v) Aromatic hydrocarbons
7. Describe the detectors used in HPLC. What are the advantages of HPLC ? Explain with suitable examples.
8. What is the principle of electrophoresis ? Explain its applications in environmental research.

× × × × × × ×