

Ph.D. (ENVIRONMENTAL SCIENCE) (PHDEV)

Term-End Examination

December, 2022

REVE-001 : ENVIRONMENTAL CHEMISTRY

Time : 3 hours

Maximum Marks : 100

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

1. Define the following terms, giving an application from your research proposal : 20
 - (a) Pollutant
 - (b) DO
 - (c) COD
 - (d) Receptor
 - (e) Sink

2. Explain the role of green chemistry in pollution prevention. 20

3. What are environmentally benign solvents ? Describe the role of supercritical carbon dioxide as a solvent. 20

4. Explain the principle of electrophoresis and give its applications in the environment. 20
5. Explain the following and give their utility in environmental research : 20
- (a) E-tongue
 - (b) E-nose
 - (c) Computer vision
 - (d) Integration of multiple sensors
6. What is green chemistry ? Explain the principles of green chemistry. 20
7. Write a short note on HPLC and its advantages in environmental research. 20
8. Explain the principle and the process of Nephelometry. 20
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