

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

Term-End Examination

December, 2022

REVE-004 : ENVIRONMENTAL GEOMICROBIOLOGY

Time : 3 hours

Maximum Marks : 100

Note : Answer any **five** questions out of eight questions.
All questions carry 20 marks each.

1. Define rocks and minerals.
Describe a soil profile with a diagram.
Explain the biogeochemical cycle of sulphur, with
a diagram. 3+10+7=20
2. Explain the hydrosphere as a microbial habitat. 20
3. Describe the importance of geomicrobiology in
bio-energy production. 20
4. Describe the working of TEM (Transmission
Electron Microscope), with a neatly labelled
diagram. 20
5. Explain the role of microbial agents in
composting and methane production. 20

- 6.** How do microbial activities influence geological processes ? Give examples. *20*

 - 7.** Explain the importance of geomicrobiological studies in ecology and environment. *20*

 - 8.** Write an essay on groundwater contamination in India. Explain with a case study. *20*
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