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**BSCBTV 381**

**Choice Based Credit System VI Semester B.Sc. Degree  
Examination, September 2022  
(2021 – 22 Batch Onwards)  
BIOTECHNOLOGY  
Environmental Biotechnology**

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Answer Part – **A** and Part – **B**.  
2) Draw the diagram **wherever** necessary.

**PART – A**

1. Answer **any ten** of the following. **(10×2=20)**
- What is photochemical smog ?
  - Write any two microorganisms used in bioleaching.
  - What is the composition of biogas ?
  - Write any two significance of GM foods.
  - Write any two toxic effects of mercury.
  - Mention any two methods used in radioactive waste management.
  - Write any two uses of *Pongamia* species.
  - Mention any two lignin degrading microorganisms.
  - Give any two sources of water pollution.
  - Define land farming. Mention any one application.
  - Give any two examples for non-renewable resources.
  - Define biofertilizer. Give an example.

**P.T.O.**



## PART – B

Answer **any four** questions, choosing **one** from **each** Unit.

**Unit – I**

2. a) Explain mercury cycle. 4  
b) Write a note on causes and control of soil pollution. 4  
c) Discuss the different steps involved in nitrogen cycle. 7

OR

3. a) Write a note on greenhouse effect. 3  
b) What is sedimentary cycle ? Explain with an example. 5  
c) Explain carbon cycle with a neat labelled diagram. 7

**Unit – II**

4. a) Write a note on vermicomposting. 4  
b) Comment on phytoremediation. 4  
c) Explain waste management methods in distillery and leather industry. 7

OR

5. a) Write a note on permissible limits for pollutants. 3  
b) Explain the mechanism of microbial mining of gold. 5  
c) Give a detailed account on secondary treatment of sewage water. 7

**Unit – III**

6. a) Write a note on wind energy and its utilization. 4  
b) Comment on biomass energy. 4  
c) Give an account of *Jatropha* as energy garden. 7

OR

7. a) Write a note on tidal energy. 3  
b) Comment on renewable resources. 5  
c) Explain solar energy converters. 7

**Unit – IV**

8. a) Write a note on microbial degradation of cellulose. 4  
b) Comment on environmental issues of fresh water aquaculture. 4  
c) Give an account on bacterial biopesticides. 7

OR

9. a) Write a note on degradation of plastics. 3  
b) Comment on CRZ. 5  
c) Explain marine resources in detail. 7
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