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Total No. of Pages: 02

Total No. of Questions: 11

Master of Science (Bio Technology)(Sem. – 1)

ENVIRONMENT BIOTECHNOLOGY

Subject Code: MBT-111

M Code: 75664

Date of Examination : 19-01-23

Time: 3 Hrs.

Max. Marks: 70

INSTRUCTIONS TO CANDIDATES:

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains SEVEN questions carrying FIVE marks each and students have to attempt any SIX questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Explain the following in brief:

- a) Definition of the term environment.
- b) Important water borne pathogens and diseases caused by them.
- c) Definition of metagenomics and its applications.
- d) Composition of the dairy waste.
- e) Organic farming.
- f) Microbial leaching.
- g) Degradation of lignocelluloses.
- h) Role of biosurfactants.
- i) Treatment of solid waste.
- j) Innovation in pollution treatment methods.

SECTION-B

2. Explain different parameters used to monitor environmental pollution.
3. Discuss working and organization of rotating biological contactors for treating waste water.
4. What is bioremediation? Illustrate the importance of culture based techniques in bioremediation procedures.
5. Differentiate between biocompost and vermicompost.
6. Explain biochemistry, microbiology and applications of Biomineralization.
7. Write a detailed note on treatment of biomedical waste.
8. Suggest various approaches used to control environmental pollution in the urban sector.

SECTION-C

9. Compare design and working of oxidation ponds and trickling filters for waste water treatment.
10. Give detailed procedure for the treatment of dairy industry waste.
11. Explain methodology and application of organic farming. Also briefly discuss the importance of vermiculture in agricultural upliftment.

NOTE : Disclosure of Identity by writing Mobile No. or Marking of passing request on any paper of Answer Sheet will lead to UMC against the Student.