

2203001107040002
EXAMINATION NOVEMBER 2024
MASTER OF SCIENCE (BIOTECHNOLOGY)
SEVENTH SEMESTER
ENVIRONMENTAL BIOTECHNOLOGY - LEVEL 4

[Time: As Per Schedule]

[Max. Marks: 70]

Instructions:

1. Fill up strictly the following details on your answer book

- a. Name of the Examination : **MASTER OF SCIENCE (BIOTECHNOLOGY) SEVENTH SEMESTER**
- b. Name of the Subject : **ENVIRONMENTAL BIOTECHNOLOGY - LEVEL 4**
- c. Subject Code No : **2203001107040002**

2. Sketch neat and labelled diagram wherever necessary.
3. Figures to the right indicate full marks of the question.
4. All questions are compulsory.

Seat No:

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Student's Signature

Q.1 Attempt any two:

18

- (a) What are the problems of dye in the effluent?
- (b) What are the technologies available for removal of dyes from industrial effluents?
- (c) Explain the microbial population associated with treatment of an industrial dye effluent.

Q.2 Attempt any two:

18

- (a) Explain types of phytoremediation in brief.
- (b) Describe the cellular mechanisms for heavy metals detoxification and tolerance.
- (c) Explain phytoremediation using plants to clean up polluted soil.

Q.3 Attempt any two.

18

- (a) Discuss a case study of environment and heritage service for radiation pollution prevention.
- (b) Explain Biological markers and their use in Quantitative Assessments
- (c) Discuss the types of bioindicators with its uses.

Q.4 Attempt any two.

16

- (a) Describe ecological impact of engineered crops
- (b) Give a note on genetically modified food
- (c) Mention case studies for GMO
