

No. of Printed Pages : 03

Roll No. ....

**DD-333**

**M. Sc. EXAMINATION, May 2017**

(Fourth Semester)

(Main & Re-appear)

BIOTECHNOLOGY

BT-606-MS

Environment Biotechnology-I

*Time : 3 Hours]*

*[Maximum Marks : 100*

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Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

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**Note :** Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

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**P.T.O.**

### Unit I

1. What is Ecosystem ? Define its boundary and energy transfer and maintenance of ecosystem. **20**
2. Microbes evolve before earth-planet. Discuss the role of microbes in the development and origin of life on earth. **20**

### Unit II

3. What are different types of toxicants released into the environment by industry and man-made activities. Define their origin and accumulation in the environment. **20**
4. Write short notes on the following :
  - (a) Bioaugmentation
  - (b) Biodiversity conservation
  - (c) Red-data book
  - (d) Gene bank. **5×4=20**

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### Unit III

5. What are Radioactive substances ? Discuss their different effects on living system. Cite suitable examples.
6. Write notes on the following :
  - (a) Removal strategy of heavy metal waste
  - (b) Pesticide-degradation
  - (c) Formation and effect of fog and smog.

**7+7+6=20**

### Unit IV

7. What do you understand by environment quality ? Discuss in detail about the methods for quality assessment of environment. **20**
8. Write notes on the following :
  - (a) GIS in Agriculture and environmental studies
  - (b) Methods of determination of air-quality.

**12+8=20**

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**70**