

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(BT) (2011 Onwards E) (Sem.-7,8)**ENVIRONMENTAL BIOTECHNOLOGY**

Subject Code : BTBT-907

Paper ID : [A2955]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

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

SECTION-A**Q1 Answer briefly :**

- a) What is composting?
- b) Explain direct leaching.
- c) What is bioaugmentation?
- d) Write short note on Bio-fertilizers.
- e) What is Sludge drying?
- f) What is sloughing of filter?
- g) Explain up flow anaerobic sludge blanket reactor.
- h) What is the role of microbes in mining?
- i) Briefly explain acetogenic bacteria.
- j) What are landfills and its importance?

SECTION-B

- Q2 Differentiate between trickling filters and activated sludge process.
- Q3 Explain the microbial degradation of surfactants.
- Q4 What is bioremediation? Differentiate between intrinsic and engineered bioremediation.
- Q5 What are bio-pesticides? How are these produced? Explain with examples.
- Q6 What are the advantages and disadvantages of using microbes in metal recovery?

SECTION-C

- Q7 Discuss solid waste management. Explain the recycling and processing of organic residues with examples
- Q8 Write explanatory notes on :
- Biorestortion through mircopropogation.
 - Plasmid borne metabolic activites.
- Q9 What are the different anaerobic and aerobic digestion processes and conditions?