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M.Sc. (Bio-Technology) (Second Semester) EXAMINATION, May/June-2021

Paper - 204

A-ENVIRONMENTAL BIOTECHNOLOGY B-ANIMAL BIO-TECHNOLOGY

Time: Three Hours

Maximum Marks: 85 (For Regular Students) Minimum Pass Marks: 29

Maximum Marks: 100 (For Private Students) Minimum Pass Marks: 34

Note—Attempt *all* questions.

Unit-I

1. What is bioremediation? Write on the use of genetically modified microbes in bioremediation. 17/20

Unit-II

2 (a) What do you mean by xenobiotics? Explain xenobiotic degradation.

 $8\frac{1}{2}/10$

(b) Vermicomposting and its advantages.

 $8\frac{1}{2}/10$

Unit-III

3. Explain Animal cell cultures under the following heads: Difference between primary and secondary cell culture, Adherent and suspension cell cultures, cell viability, Cryopreservation.

17/20

Unit-IV

4. Write a note on media used in animal cell cultures. Explain the role of various media components used in Animal cell cultures maintenance. 17/20

Unit-V

5. Describe/Explain in detail (any *two*)—

17/20

- (a) Cell culture based vaccines.
- (b) Cell cloning.
- (c) Transgenic Animals.
- (d) Measurement of Phagocytic activity.