

Roll No.

Y-2537

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M. Phil. EXAMINATION, 2015

BIOTECHNOLOGY

Paper Second

(Application of Biotechnology)

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt all the *five* questions. *One* question from each Unit is compulsory. All questions carry equal marks.

Unit—I

1. Briefly explain the concept of the following :

- (a) Anther culture
- (b) Cryopreservation

Or

What is micro-propagation ? Describe its method in detail taking the example of Eucalyptus.

Unit—II

2. What are monoclonal antibodies ? How are these prepared ? Also add a note on their applications.

Or

Write short notes on the following :

- (a) Western blotting
- (b) Cell lines

Unit—III

3. Describe the role of microbes in the food industries.

Or

Write short notes on the following :

- (a) Bioreactor
- (b) Biosensor

Unit—IV

4. What is environmental pollution ? Describe the causes, effects and control of air pollution.

Or

Briefly explain the following :

- (a) Xenobiotics
- (b) Bioremediation

Unit—V

5. What is electrophoresis ? Explain the principle and applications of PAGE.

Or

What is PCR ? Describe its applications. How is mechanism of RT-PCR different from it ?

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