

9. Write short notes on the following :

- (a) GM crops
- (b) Role of biotechnology in waste water treatment
- (c) Applications of biotechnology in agriculture. **5,5,5**

No. of Printed Pages : 04

Roll No.

B531

Dual Degree B.Sc. (Hons.)/M.Sc.

EXAMINATION, May 2019

(Second Semester)

(Main & Re-appear)

(BT)

DBT102

BIO-TECHNOLOGY

Basics of Bio-Technology

Time : 3 Hours]

[Maximum Marks : 75

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.

Note : Q. No. 1 is compulsory. Attempt *four* more questions selecting at least *one* question from each Unit. All questions carry equal marks.

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70

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P.T.O.

1. Write short notes on the following :

- (a) Modern Biotechnology
- (b) Gene Cloning
- (c) DNA denaturation
- (d) Micropropagation
- (e) GM foods.

3×5=15

Unit I

2. Discuss the scope and future of biotechnology in detail. **15**

3. Give an account of various branches of biotechnology. Also discuss their interdisciplinary relevance. **15**

Unit II

4. Give evidences in support of the statement that nucleic acids are genetic material. **15**

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5. Write short notes on the following :

- (a) *t*-RNA
- (b) Z-DNA
- (c) Restriction modification systems. **5,5,5**

Unit III

6. Write short notes on the following :

- (a) Ultrastructure of Viruses
- (b) Somaclonal Variations
- (c) *In vitro* pollination and fertilization.

5,5,5

7. Discuss various phases of bacterial growth. Also discuss various factors affecting bacterial growth. **15**

Unit IV

8. Give a detailed account of various applications of biotechnology in industry and medicine.

15

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P.T.O.