



AF-3059

B.Sc. (Part - II)
Term End Examination, 2017-18

BIOTECHNOLOGY

Paper - II

Time : Three Hours] [*Maximum Marks* : 50

Note : Answer **all** questions. All questions carry equal marks.

Unit-I

1. Give a general concept and application of Recombinant DNA Technology.

OR

Write short notes on the following :

- (a) Restriction endonuclease
- (b) Genomic library

(2)

Unit-II

2. What do you mean by vectors ? Discuss the nature and significance of different types of vectors used in DNA technology.

OR

Write short notes on the following :

- (a) Cloning vectors for animal
- (b) Plasmid as a vector

Unit-III

3. Briefly discuss the applications, advantages and limitations of polymerase chain reaction.

OR

Comment on the following in brief:

- (a) Kary Mullis (1983)
- (b) Annealing
- (c) Bivalent cations
- (d) DNA isolation

Unit-IV

4. What do you mean by monoclonal antibodies ? Briefly discuss the production and application of monoclonal antibodies.

OR

(3)

Write short notes on the following :

- (a) In vitro fertilization
- (b) Chimeric antibodies

Unit-V

5. What is DNA fingerprinting ? Give a critical account of its procedure/method and applications.

OR

Write short notes on the following :

- (a) Transgenic plants
 - (b) Targeted gene transfer
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