

Roll No. ....

# DD-801

## M. Sc. (Fourth Semester) EXAMINATION, 2020

BIOTECHNOLOGY

Paper First

**(Basic Concept of Bioinformatics and Nanobiotechnology)**

*Time : Three Hours*

*Maximum Marks : 80*

**Note :** All questions are compulsory and carry equal marks.

1. Write short notes on the following :
  - (a) Scope of bioinformatics
  - (b) Biological database
  - (c) Microarray technology
  - (d) Application of Nanobiotechnology

### Unit—I

2. Describe the relationship between Biotechnology and Bioinformatics in detail.

*Or*

Write short notes on the following :

- (a) BTIS network in India
- (b) Application of Bioinformatics

**Unit—II**

3. Explain the types of sequences present in biological databases.

*Or*

Write short notes on the following :

- (a) Gene Bank
- (b) ESTs

**Unit—III**

4. Give an account description on chemoinformatics and pharmacogenomics.

*Or*

Write short notes on the following :

- (a) BLAST
- (b) Human Genome Project

**Unit—IV**

5. Discuss the role of nanobiotechnology in medical field.

*Or*

Write short notes on the following :

- (a) Nanoscale
- (b) Nanobacteria