

# DD-796

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

MICROBIOLOGY

Paper Second

(Advanced Immunology, Diagnostics and Prophylaxis)

*Time : Three Hours*

*Maximum Marks : 80*

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

1. Write short notes on any *four* of the following :
  - (a) T-cell Receptor genes
  - (b) Designer antibody
  - (c) Nosocomial infection
  - (d) Antiviral agents
  - (e) Application of monoclonal antibodies
  - (f) Difference between live vaccines and killed vaccines
2. Describe light and heavy chain gene recombination.

*Or*

Write short notes on any *two* of the following :

- (a) Class switching recombination
- (b) Membrane and secreted immunoglobulins
- (c) BCR and TCR diversity

3. Give an account on synthesis and production of immunoglobulins.

*Or*

Write short notes on any *two* of the following :

- (a) Autoimmune disorders
- (b) Immunodeficiency diseases
- (c) Monoclonal antibody

4. Describe the principles of antimicrobial action.

*Or*

Write short notes on any *two* of the following :

- (a) DNA vaccines
- (b) Antifungal and Anticancer compounds
- (c) Viral vaccines

5. Explain microbiological, immunological and molecular diagnosis of microbial diseases.

*Or*

Write short notes on any *two* of the following :

- (a) Immunoblotting
- (b) Flow cytometry
- (c) Isolation of pure antibody