(For the candidates admitted from 2012-2013 onwards)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

Second Semester

Biotechnology

IMMUNOLOGY

Time: Three hours

Maximum: 75 marks

SECTION A — $(5 \times 5 = 25 \text{ marks})$

Answer ALL the questions.

1. (a) Give a short note on history of immunology.

Or

- (b) Describe primary lymphoid organ, its structure and functions.
- 2. (a) Give a short note on Epitope and its importance.

Or

(b) Write a short note on adjuvants.

3. (a) Explain the salient features of antigenantibody reactions.

Or

- (b) Briefly describe the classical pathway of complement activation.
- 4. (a) Give a short note on graft rejection.

Or

- (b) Explain Type I hypersensitivity reaction.
- 5. (a) Explain purification of macromolecules as vaccines.

Or

(b) Discuss FACS in detail.

SECTION B — $(5 \times 10 = 50 \text{ marks})$

Answer ALL the questions.

6. (a) Explain in detail the types of immunity.

Or

(b) Discuss the role of bone marrow and its significance.

7. (a) Discuss the various types of immunoglobulins structure and functions.

Or

- (b) Explain cell mediated immune response.
- 8. (a) Give a detailed note on Cytokine and its application.

Or

- (b) Explain MHC in detail.
- 9. (a) Explain transplantation immunology and its importance.

Or

- (b) Explain immunosuppressive therapy and its application.
- 10. (a) Describe the production of monoclonal antibody.

Or

(b) Explain in detail HLA typing.

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