



CBCS SCHEME

17BT53

Fifth Semester B.E. Degree Examination, Dec.2019/Jan.2020
Immunotechnology

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Give the characteristics of Acquired Immunity. (10 Marks)
b. Explain the classes of Immunoglobulin's with biological functions. (10 Marks)

OR

- 2 a. Describe the structure and functions of thymus, with a neat sketch. (10 Marks)
b. Write a detailed note on different barriers of Innate immunity. (10 Marks)

Module-2

- 3 a. Explain the activation of B – Lymphocytes. (10 Marks)
b. Give the protocol for the production of monoclonal antibodies and add a note on applications. (10 Marks)

OR

- 4 a. Describe Major Histocompatibility Complex I and II. (10 Marks)
b. Explain the process of Antigen processing and presentation of Exogenous antigen. (10 Marks)

Module-3

- 5 a. Explain classical pathway of complement activation. Add a note on its biological consequences. (10 Marks)
b. Explain the types of hypersensitivity with suitable examples. (10 Marks)

OR

- 6 a. Define Autoimmunity and add a note on types with examples. (10 Marks)
b. Describe the immune response to bacterial and Viral infections. (10 Marks)

Module-4

- 7 a. Explain the mechanism of graft rejection. (10 Marks)
b. Describe Hematopoietic stem cell transplantation. (10 Marks)

OR

- 8 a. Give a detailed note on Immuno suppression and tolerance. (10 Marks)
b. Explain Sub unit Vaccines. (10 Marks)

Module-5

- 9 a. Give the application of PCR technology to produce humanized antibodies. (10 Marks)
b. Describe Agglutination reactions with an example. (10 Marks)

OR

- 10 a. Give the principle, types and applications of ELISA. (10 Marks)
b. Explain precipitation reaction with an example. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.