CBCS SCHEME

USN | | | | | | | | | |

18BBT242

Second Semester M.Tech. Degree Examination, June/July 2019
Immunotechnology

Time: 3 hrs. Max. Marks: 100

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

Module-1

1 a. Explain isotypes of antibody molecules found in serum with a neat labeled diagram. **(10 Marks)**

b. Detail the immune response system of humans. **(10 Marks)**

OR

2 a. "Antigens generate a specific immune response". Justify. Describe their types as well. **(10 Marks)**

b. Describe the organization and structure of lymphoid organs and cells. **(10 Marks)**

Module-2

3 a. What are MHC and their types? Describe the cytosolic pathway for antigen processing. **(10 Marks)**

b. What is the difference between B – Lymphocyte and T – Lymphocyte? How do B – cells recognize antigens? **(10 Marks)**

OR

4 a. Detail the mechanism of NKcell mediated cell lysis. **(10 Marks)**

b. Write short notes on :
i) Polyclonal antibodies ii) Macrophage mediated cytotoxicity. **(10 Marks)**

Module-3

5 a. What are the functions of complement system? How does the classical complement pathway get activated? **(10 Marks)**

b. Detail / Describe Type 1 and Type 2 hypersensitive reactions. **(10 Marks)**

OR

6 a. Detail the production of recombinant DNA vaccines. **(10 Marks)**

b. Write short notes on : i) Cytokines ii) Autoimmunity. **(10 Marks)**

Module-4

7 a. "Implantation of 'non – self' tissue into the body is possible". Justify. **(10 Marks)**

b. Explain immunodeficiency disorders. **(10 Marks)**

OR

8 a. "Diseases are cured via immotheraphy with genetically engineered antibodies". Uphold the statement. **(10 Marks)**

b. Write short notes on :
i) Immuno suppressive drugs ii) Tumor specific antigens. **(10 Marks)**

Module-5

9 a. Describe the process of Blood typing and the principle involved in determining the blood group. **(10 Marks)**

b. Write short notes on :
i) ELISA ii) Western Blotting. **(10 Marks)**

OR

10 a. Describe the principle and application of Radio immuno assay (RIA). **(10 Marks)**

b. Describe the principle and procedure i) SPR based assay ii) FACS. **(10 Marks)**

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