CBCS Scheme

USN | | | | | | | | | | |

15BT53

Fifth Semester B.E. Degree Examination, Dec.2017/Jan.2018
Immunotechnology

Time: 3 hrs. Max. Marks: 100

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

Module-1

1 a. Explain Primary and Secondary lymphoid organs of Immune system. **(08 Marks)**

b. Discuss the relationship between Ig structure of all five classes of antibody and explain the functions of each type. **(08 Marks)**

OR

2 a. Define Immunity. Compare and classify immunity in various parameters. **(08 Marks)**

b. Write short notes on :
i) Adjuvants ii) Epitope. **(08 Marks)**

Module-2

3 a. Define Cell mediated immunity. Outline the method involved in the clearance of target cell by cytotoxic T – lymphocytes. **(08 Marks)**

b. Construct a Kappa light chain combination of your choice and depict a detail the recombination mechanism of Kappa light chain genes. **(08 Marks)**

OR

4 a. Schematically represent the conversion of naïve B cells to activated plasma cells by cell mediated immune response. **(08 Marks)**

b. Term endogenous antigen. Delineate cyto solic antigen processing pathway. **(08 Marks)**

Module-3

5 a. Discuss the mechanism of activation and regulation of classical complement activation pathway. **(08 Marks)**

b. Distinguish between primary and secondary immune – deficiency and explain SCID (Severe Combined Immuno Deficiency) as an example. **(08 Marks)**

OR

6 a. Mention the causes of autoimmunity and explain the experimental animals used for its study. **(08 Marks)**

b. Define Hypersensitivity. Explain the 4 types of hyper sensitivity in detail. **(08 Marks)**

Module-4

7 a. Describe the role of MHC in graft rejection. **(08 Marks)**

b. Write short notes on :
i) HLA typing ii) Tumor Antigens. **(08 Marks)**

OR

8 a. Explain Immune Suppressive therapy, with suitable example. **(08 Marks)**

b. Define Immunization. List the different types of vaccination available. Explain one with an example. **(08 Marks)**

Module-5

9 a. Write short notes on :
i) Catalytic Antibodies. **(04 Marks)**
ii) Applications of stem cells in immunology. **(04 Marks)**

b. Explain Hae magglutination. Illustrate the multiple antigens that may occur on the RBC surface in ABO system. Add a note on its applications. **(08 Marks)**

OR

10 a. Outline the principle and procedure of FACS. Add a note on its application. **(08 Marks)**

b. Explain the characteristic features of Ag – Ab interactions, with suitable examples. **(08 Marks)**

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