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10BT54

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

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions, selecting
atleast TWO questions from each part.**

PART – A

1. a. Describe how the primary and secondary lymphoid organs are necessary for immune response. (10 Marks)
b. What is immunity? Explain innate immunity and adaptive immunity. (10 Marks)
2. a. Define monoclonal antibody and explain the production by hybridoma technology and its applications. (10 Marks)
b. What is antibody? Explain the structure of IgG and its biological functions. (10 Marks)
3. a. What is major histo compatibility complex? Give different classes and explain it. (10 Marks)
b. Write explanatory notes on :
i) Mechanism of T-cell activation
ii) Phagocytosis. (10 Marks)
4. a. Define complement system. Explain the classical complement system and its applications. (10 Marks)
b. Discuss the type-I and type-II hypersensitivity reactions. (10 Marks)

PART – B

5. a. Explain AIDS and its mechanism. (10 Marks)
b. Define autoimmune disorders. Explain any two auto immune disorders in detail. (10 Marks)
6. a. Write explanatory notes on :
i) Immune suppressive drugs
ii) Tumor specific antigens. (10 Marks)
b. Describe the various steps involved in mechanism of graft rejection. (10 Marks)
7. a. Explain the various types of vaccines with the help of suitable examples. (10 Marks)
b. Give an account of stem cells and their applications. (10 Marks)
8. a. Explain the principle, procedure and applications of SANDWICH ELISA. (10 Marks)
b. Write explanatory notes on :
i) ROCKET electrophoresis
ii) ODD – ouchterlong Double – Diffusion. (10 Marks)

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.