

9. (a) What is ELISA? Explain the technique and applications.

Or

- (b) Write a general account on immunotherapy.

10. (a) Explain the methodology of monoclonal antibody production.

Or

- (b) Write an account on the etiology of sexually transmitted diseases.

S.No. 118

12PMB06

(For the candidates admitted from 2012–2013 onwards)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2017.

Third Semester

Medical Biochemistry

IMMUNOLOGY

Time : Three hours

Maximum : 75 marks

SECTION A — (5 × 5 = 25 marks)

Answer ALL questions.

1. (a) Explain the immunological functions of 'spleen'.

Or

- (b) What are adjuvants? Explain their types and uses.

2. (a) Draw and describe the structure of an immunoglobulin-G molecule.

Or

- (b) What are cytokines? Explain their different modes of action.

3. (a) What is membrane attack complex? Explain its role.

Or

- (b) Define the following :

- (i) Allograft
- (ii) syngeneic graft.

4. (a) Write notes on :

- (i) Immune adherence
- (ii) WIDAL test.

Or

- (b) Explain the principles of

- (i) Complement fixation test
- (ii) Test for AIDS.

5. (a) Differentiate monoclonal and polyclonal antibodies.

Or

- (b) Explain the principles of hybridoma technology.

SECTION B – (5 × 10 = 50 marks)

Answer ALL questions.

6. (a) Explain the properties of an antigen. Describe the nature of viral and tumor antigens.

Or

- (b) List the different types of white blood cells you know. Explain their respective immunological functions.

7. (a) Explain the antigen processing and presentation to T_H cells, with the help of a diagram.

Or

- (b) Describe the nature and functions of T and B-cell receptor molecules.

8. (a) Discuss the mechanism of type-I and type-IV hypersensitivity reactions.

Or

- (b) What are autoimmune diseases? Explain the immunological defects in Rheumatoid arthritis and diabetes mellitus.