

Master of Science (M.Sc.) (Microbiology) Semester—II (C.B.C.S.) Examination

IMMUNOLOGY AND IMMUNODIAGNOSTICS (IID)

Paper—4

Time : Three Hours]

[Maximum Marks : 80

N.B. :— ALL questions are compulsory and carry equal marks.

1. Discuss the processing and presentation of antigen by exogenous pathway. 16

OR

Explain in detail T-cell independent defense mechanisms against pathogens. 16

2. Discuss general and specific immunosuppressive therapy used in transplanted patients. 16

OR

Write on the following :

(a) Malignant transformation of cells. 8

(b) Tumor evasion of the immune system. 8

3. Describe cell mediated hypersensitivity reaction. 16

Write on the following :

(a) Severe combined immunodeficiency syndrome. 8

(b) Multiple sclerosis. 8

4. Describe Western Blotting technique and mention its applications in diagnostic field. 16

OR

Write on the following :

(a) Radio immunoassay 8

(b) Immunoelectron microscopy. 8

5. Write short notes on :

(a) Mononuclear phagocytes. 4

(b) Cancer Immunotherapy. 4

(c) Myasthenia gravis. 4

(d) Immunoelectrophoresis. 4

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1. Discuss the processing and presentation of antigen by bacterial pathogen by exogenous pathway. 16

OR

Write an account on :

- (a) ADCC 8
 (b) T-cell dependent defence mechanisms. 8
2. Discuss the central and peripheral tolerance to self antigens. 16

OR

Write notes on :

- (a) Hyperacute graft rejection 8
 (b) Immunosuppressive therapy. 8
3. Describe various types of ELISA reactions and mention their application in diagnostic field. 16

OR

Write notes on :

- (a) Complement fixation test 8
 (b) Western blotting technique. 8
4. Describe immune complex mediated hypersensitivity reactions with suitable examples. 16

OR

Write an account on :

- (a) Rheumatoid arthritis 8
 (b) DiGeorge Syndrome. 8
5. Write notes on :
- (a) Agranulocytes 4
 (b) Cancer immunotherapy 4
 (c) AIDS 4
 (d) Immunoelectron Microscopy. 4

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(2) Draw well labelled diagram wherever necessary.

1. Describe antigen presenting cells and discuss mechanism of antigen processing and presentation by endogenous pathway. 16

OR

Explain in detail secondary lymphoid organs. 16

2. Define different types of grafts and discuss mechanism of graft rejection. 16

OR

Explain malignant transformation of cells and add a note on cancer immunotherapy. 16

3. Write notes on :

- (a) Bruton's X-linked hypogamma-globulinemia 8
(b) Multiple sclerosis. 8

OR

Describe the mechanism of type II and type III hyper-sensitivity with examples. 16

4. Discuss various examples of precipitation reactions. 16

OR

Write notes on :

- (a) Chemiluminescence immuno assay 8
(b) Complement fixation test. 8

5. Explain the following :

- (a) Natural killer cells 4
(b) Peripheral tolerance of self-antigen 4
(c) Myasthenia gravis 4
(d) Western blotting technique. 4

Master of Science (M.Sc.) Semester—II Choice Based Credit System (CBCS)
(Microbiology) Examination

IMMUNOLOGY AND IMMUNODIAGNOSTICS (IID)

Paper-4

Time : Three Hours]

[Maximum Marks : 80

N.B. : All questions are compulsory and carry equal marks.

1. Describe in detail the mechanism of cell mediated immune response. 16
- OR
- Describe the classical pathway of complement system. 16
2. Discuss the salient features of tumor evasion. 16
- OR
- Give an account of mechanism of Graft rejection and immunosuppressive therapy. 16
3. Discuss immediate type of hypersensitivity with examples. 16
- OR
- What is auto immunity ? Describe SCID and Grave's disease. 16
4. Discuss mechanism and applications of precipitation reaction. 16
- OR
- Write notes on :
- (a) Radioimmuno assay. 8
- (b) Western blotting technique. 8
5. Write short notes on :
- (a) Primary and secondary lymphoid organs 4
- (b) Cancer Immunotherapy. 4
- (c) Guillain Barre Syndrome. 4
- (d) Describe ELISA. 4

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(Microbiology) Examination

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What is auto immunity ? Describe SCID and Grave's disease. 16
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(c) Guillain Barre Syndrome. 4
(d) Describe ELISA. 4