



Seat No. : _____

TG-117

March-2013

B.Sc. Sem. IV

205 BIOTECHNOLOGY

(Immunology)

Time : 3 Hours]

[Max. Marks : 70

- Instructions :** (1) **All** questions are compulsory and carry equal marks.
(2) Draw labeled diagram wherever necessary.
(3) **All** main questions should start from new page.

1. (a) Describe in vitro antigen-antibody reactions in appropriate detail. 7

OR

Discuss the major categories of antigenic determinants.

- (b) Explain the concept of antibody diversity in detail. 7

OR

Describe the structure of immunoglobulins along with the schematic diagram.

2. (a) Write a note on highly organized secondary lymphoid organs. 7

OR

Discuss the properties and functions of mononuclear phagocytes.

- (b) Discuss the type of lymphocytes that mature in thymus along with their subpopulations. 7

OR

Discuss the basics of humoral immune response, by differentiating it from cytotoxic immune response.

3. (a) Discuss the modes of immunosuppression in detail. 7

OR

Describe in detail the structure of class I MHC molecules.

(b) Discuss the role of CMIR in cancer detection. 7

OR

Classify and discuss the types of cancer on the basis of origin.

4. (a) Discuss the immunology behind systemic autoimmune disease. 7

OR

Discuss causes and symptoms of LAD and CGD.

(b) Enlist various primary immunodeficiency diseases and explain any one in detail. 7

OR

Discuss the clinical manifestations of type I hypersensitivity reactions.

5. Explain in short : 14

- (1) Opsonization
 - (2) Haptanes
 - (3) APCs
 - (4) Primary immune response
 - (5) MALT
 - (6) Paratops
 - (7) MIF
 - (8) GVHD
 - (9) Xenograft
 - (10) Superantigens
 - (11) Adaptive immunity
 - (12) WAS
 - (13) Hypersensitivity reaction
 - (14) Paracortex
-