

S-685

Roll No.

ZO-551

Immunology

M.Sc. Zoology (MSCZO-12)

Second Year, Examination, 2018

Time : 3 Hours

Max. Marks : 80

Note : This paper is of **eighty (80)** marks containing **three (03)** Sections A, B and C. Learners are required to attempt the questions contained in these Sections according to the detailed instructions given therein.

Section-A

(Long Answer Type Questions)

Note : Section 'A' contains four (04) long answer type questions of nineteen (19) marks each. Learners are required to answer *two* (02) questions only.

1. What are the transplantation antigen and discuss their role in graft rejection.
2. Explain the principle of ELISA and how is it useful in diagnosing HIV.
3. Discuss on the function of cell mediated immunity.
4. Describe in detail the basic structure of an immunoglobulin molecules.

Section-B

(Short Answer Type Questions)

Note : Section 'B' contains eight (08) short answer type questions of eight (08) marks each. Learners are required to answer *four* (04) questions only.

1. Write short notes on the following :
 - (a) Lymphoid organs
 - (b) Clonal selection theory
2. Write briefly the role of lymphocytes in immune response.
3. Explain the (MHC) major histocompatibility complex associated disease.
4. Explain the factor influencing antibody production.
5. What are NK cells (Natural Killer Cell's) and what is their role in CMI (Cell Mediated Immunity) ?
6. What do you mean by Arthus reaction and Tuberculin reaction ?
7. Discuss on the B-cell deficiency disease.
8. Write an short account on diagnosis treatment of AIDS.

Section–C

(Objective Type Questions)

Note : Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this Section are compulsory.

Choose the correct alternative :

1. Which of the following is the most abundant immunoglobulin (Ig) ?
 - (a) IgM
 - (b) IgG
 - (c) IgA
 - (d) IgE

2. The primary Ig of exocrine secretion is :
 - (a) IgM
 - (b) IgG
 - (c) IgA
 - (d) IgE
3. Any substance or molecules that interact with antibodies are called :
 - (a) Antigen
 - (b) Antibodies
 - (c) Epitope
 - (d) Immunogens
4. Antigen can be :
 - (a) Protein
 - (b) Carbohydrates
 - (c) Nucleic acids
 - (d) All of the above
5. A molecules that reacts with specific antibody but is not immunogenic upon binding covalently to a carrier proetin :
 - (a) Carrier
 - (b) Antigen
 - (c) Hapten
 - (d) Immunogen
6. Haptens cannot activate T-cell or B-cells due to :
 - (a) Its low molecular weight antigens arbuscules
 - (b) Its inability to bind to MHC
 - (c) Both (a) and (b)
 - (d) None of these

7. Which of the following is a hapten ?
- (a) Cyanide
 - (b) Paracetamol
 - (c) Penicillin
 - (d) None of these
8. Which is the largest Ig ?
- (a) IgM
 - (b) IgG
 - (c) IgA
 - (d) IgE
9. Humoral immunity is mediated by :
- (a) B-cells
 - (b) Macrophages
 - (c) Both (a) and (b)
 - (d) Phagocytes
10. Origin and maturation of B-cells takes place at :
- (a) Spleen
 - (b) Thymus
 - (c) Bone marrow
 - (d) Lymph nodes