

[4]

SECTION 'C'

4 × 10 = 40

Long Answer questions (Word limit 400-450 words.)

UNIT-I

- Q. 1. What is cellular immune system? explain its origin, development and specific function.

OR

Describe the anatomy and functions of Thymus and bone marrow.

UNIT-II

- Q. 2. What is Immunoglobulin? Explain its classes, structure and functions.

OR

Write short note on following –

- (i) Molecular structure of antibodies light chain and heavy chain.
- (ii) Conjugated monoclonal antibodies.

UNIT-III

- Q. 3. What are Antigens? Explain their chemical nature, types and factors influencing antigenicity.

OR

Write short notes on following –

- (i) Cross reactivity
- (ii) Whole organism vaccine

UNIT-IV

- Q. 4. Explain the pathophysiology of AIDS.

OR

Describe the immune system in health diseases.

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[1]

ROLL NO.....

ZOO. 402/21

IV SEMESTER EXAMINATION, 2021

M.Sc. (ZOOLOGY)

PAPER-II

IMMUNOLOGY & PARASITISM

TIME: 3 HOURS

MAX.- 80

MIN.- 16

Note: The question paper consists of three sections A, B & C. All questions are compulsory.

Section A- Attempt all MCQ questions

Section B- Attempt one question from each unit.

Section C- Attempt one question from each unit.

SECTION 'A'

2 × 8 = 16

Multiple Choice Questions

1. The antigen processing cell in higher organism is -
 - (a) Eosinophil
 - (b) T-cell
 - (c) Macrophage
 - (d) Megakaryocyte
2. The following organs are examples of Secondary Lymphoid organ?
 - (a) Spleen and Galt
 - (b) Bone marrow & Malt
 - (c) Lymph node & Thymus
 - (d) Spleen & Thymus
3. Number of antigen binding sites in IgM.
 - (a) 4
 - (b) 5
 - (c) 8
 - (d) 10

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4. Monoclonal antibodies differ from polyclonal antibodies in their property of reacting with -
- (a) Specific epitope
 - (b) Specific clone of cells
 - (c) Specific antigen
 - (d) All of the above
5. Antigenic peptides are presented to T-cells by -
- (a) MHC
 - (b) CTLA4
 - (c) CD28
 - (d) TCR/CD3
6. FDA/WHO authorized vaccine are proven to be effective and safe against the COVID-19?
- (a) Toxoid vaccine
 - (b) Live attenuated
 - (c) m-RNA vaccine
 - (d) Conjugated vaccine
7. The common disorders caused by a poor immune system-
- (a) Autoimmune diseases
 - (b) Epidemic diseases
 - (c) Deficiency diseases
 - (d) None of above
8. Helminth (worm) infections are characterised by -
- (a) High levels of IgA
 - (b) High levels of IgE
 - (c) Excessive activity of TH-1 cells
 - (d) None of above

[3]

SECTION 'B'

4 × 6 = 24

Short Answer Type Questions

UNIT-I

- Q.1.** Explain the structure and function of NK cells (Null Cells)?

OR

Describe the structure and function of Bone Marrow?

UNIT-II

- Q.2.** Explain the structure & functions of IgG.

OR

Give difference between IgA and IgM.

UNIT-III

- Q.3.** What is Active and Passive immunization?

OR

What is vaccine? Explain its type and their functions.

UNIT-IV

- Q.4.** Explain the cell mediated antiviral mechanism on viral infections.

OR

Describe the specific immune responses due to infectious disease.