

G-2/208/21

Roll No.....

M.Sc. II Semester Examination, 2021**BIOTECHNOLOGY****Paper IV**

(Biology of Immune System)

Time : 3 Hours]

[Maximum Marks : 80

Note : *All questions are compulsory. Question Paper comprises of 3 sections. **Section A** is objective type/multiple choice questions with no internal choice. **Section B** is short answer type with internal choice. **Section C** is long answer type with internal choice.*

SECTION 'A'**(Objective Type Multiple Choice Questions)**

Choose the correct answer :

1 × 8 = 8

1. Which of the following immunity is obtained during a life time ?

- (a) Acquired immunity (b) Active immunity
(c) Passive immunity (d) Humoral immunity

2. Interferons are :

- (a) Cytokine barriers

- (b) Cellular barriers
(c) Physical barriers
(d) Physiology barrier

3. Which of the following cells of the immune system do not perform phagocytosis ?

- (a) Macrophage (b) Neutrophil
(c) Mast cell (d) Basophil

4. Which of the following cell is involved in cell mediated immunity :

- (a) B cells (b) T cells
(c) NK cells (d) Memory cells

5. Macrophages are derived from :

- (a) Neutrophils (b) Lymphocytes
(c) Monocytes (d) Basophils

6. The specificity of an antibody is due to :

- (a) its valence (b) The heavy chain
(c) The Fc portion of the molecule
(d) The variable portion of heavy and light chain

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7. Immunological destruction of body tissue or product due to antibodies reacting with it as antigen is called :

- (a) Anaphylaxis (b) Auto immune disease
- (c) Prophylaxis
- (d) Immunodeficiency disease

8. Rocket Immuno diffusion is also known as :

- (a) Gel diffusion
- (b) Electro immunodiffusion
- (c) Double diffusion
- (d) None of above

SECTION 'B'

6 × 4 = 24

(Short Answer Type Questions)

Note : Answer the following questions in 250 words.

Unit I

1. Write note on primary lymphoid organ.

Or

Structure and function of B cells.

Unit II

2. Write note on structure of IgG.

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Or

Describe function of antibody Ig E.

Unit III

3. Write note on cellmediate immunity.

Or

What are cytokines ?

Unit IV

4. Describe Anaphylaxis.

Or

What is immuno electrophoresis ?

SECTION 'C'

12 × 4 = 48

(Long Answer Type Questions)

Note : Answer the following questions in 500 words.

Unit I

1. Write brief note on cells involved in immune system.

Or

Describe Innate and Adaptive immunity.

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Unit II

2. Give brief account of nature and biology of Antigen and its type.

Or

Describe Antigen and Antibody reactions and its application.

Unit III

3. Give an account of complement system.

Or

Describe detail note on MHC.

Unit IV

4. What is hypersensitivity reaction ? Describe difference between immediate and delayed hypersensitivity reactions.

Or

Describe immunodeficiency disease in brief.

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