

G-1/184/22

Roll No.

I Semester Examination, January 2022

M.Sc.

MICROBIOLOGY

Paper IV

(Biology of Immune System)

Time : 3 Hours]

[Max. 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

8×1=8

(Objective Type/Multiple Choice Questions)

Choose the correct answer :

- 1.** B cells that produce and release large amount of antibody are called :
 - (a) Memory cells
 - (b) Neutrophils
 - (c) Antigen presenting cells
 - (d) Plasma cells

P.T.O.

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- 2.** Which of the following cells is involved in cell mediated immunity ?
 - (a) T cells
 - (b) Mast cells
 - (c) Thrombocytes
 - (d) β cells
- 3.** Which of the following immunity is obtained during a lifetime ?
 - (a) Innate Immunity
 - (b) Acquired Immunity
 - (c) Passive Immunity
 - (d) Active Immunity
- 4.** Precipitation reaction is relatively less sensitive for the detection of :
 - (a) antigen
 - (b) antigen-antibody complex
 - (c) antibodies
 - (d) complement
- 5.** Which of the following interleukin is responsible for T cells expansion after antigen recognition ?

(a) IL – 1	(b) IL – 2
(c) IL – 4	(d) IL – 5

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6. Which of the following polypeptide is important for the expression of MHC I on cell membrane ?

- (a) Interferons (b) β_2 -microglobulin
(c) Lymphokines (d) Interleukins

7. Which of the following is not a tumor specific antigen ?

- (a) EBV (b) HPV
(c) HER2 (d) HTLV

8. Vasodilation the following a type I hypersensitivity reaction is principally caused by which molecules ?

- (a) Histamine (b) Leukotriene
(c) IL – 4 (d) Tryptase

SECTION B

6×4=24

(Short Answer Type Questions)

Note : Answer the following questions in **250** words.

1. Explain about cell mediated immunity.

Or

Write a note on antigen.

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P.T.O.

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2. Describe in detail about Innate Immunity.

Or

Discuss about primary lymphoid organs.

3. Explain about transplantation.

Or

Write a note on Interleukins.

4. Explain about Immunodeficiency disorders.

Or

Discuss about lymphocyte traffic.

SECTION C

12×4=48

(Long Answer Type Questions)

Note : Answer the following questions in **500** words.

1. Discuss in detail about cells of immune system.

Or

Explain about structure and function of various types of antibody.

2. Write a note on Innate Immunity.

Or

Describe the antigen and antibody interaction.

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3. Explain about cytokine.

Or

Discuss about role of MHC molecules in antigen presentation.

4. Write a note on autoimmunity.

Or

Describe in detail about types of hypersensitivity.

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