G-1/138/21	Roll No
I Semeste	r Examination, April-2021
	M.Sc.
	MICROBIOLOGY
	Paper IV
(Bio	logy of Immune System)
Time : 3 Hours]	[Maximum Marks : 80
sections. Secti with no inter	are compulsory. Question Paper comprises of 3 ion A is objective type/Multiple Choice questions hal choice. Section B is short answer type with . Section C is long answer type with internal choice.
	SECTION 'A'
(O	bjective Type Questions)
Choose the correct anso	$1 \times 8 = 8$
1. Which antibody	y is present in tears :
(a) Ig G	(b) Ig A
(c) Ig M	(d) Ig E
2. A hapten is :	
(a) An epitope	(b) A paratope
(c) a small cher	mical grouping which reacts with performed
(d) An Immuno	ogen
3. Which of the fo	llowing is a primary lymphoid organ:
(a) lymph node	e (b) spleen
(c) Peyer's Pate	ch (d) Thymus
	llowing cell types of the Innate Immune system m phagocytosis :
	P.T.O.

(a) Neutrophils

- (b) Basophils
- (c) Macrophage
- (d) Eosinophils
- **5.** A graft between members of the same species is termed in :
 - (a) Autograft
- (b) Isograft
- (c) Xenograft
- (d) Allograft
- **6.** Which of the following is a non-organ specific autoimmune disease:
 - (a) Myasthenia Gravis (b) Systemic lupus Erythematous
 - (c) Hashimoto's thyroiditis
 - (d) Pernicious Anaemia
- 7. Cytotoxic T cell recognize antigen in association with:
 - (a) Class I MHC
- (b) Class II MHC
- (c) Class III MHC
- (d) Class I and II MHC
- **8.** Which type of hypersensitivity reaction causes rapid anaphylaxis in response to an allergen:
 - (a) Type I

- (b) Type II
- (c) Type III
- (d) Type IV

SECTION'B'

 $6\times 4=24$

(Short Answer Type Questions)

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

1. Describe the mechanism of Antigen Processing and Presentation.

Or

Write a note on cells of immune system.

2. What is immunofluroscence test?

Or

Explain the phagocytosis process.

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3. Write a note on cytokine.

Or

Explain the structure and type of MHC.

4. Write a note on any two organ specific Autoimmune Disease.

Or

Explain the structure of B cell receptor complex.

SECTION'C'

 $12 \times 4 = 48$

(Long Answer Type Questions)

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

1. Write a note on cell mediated immunity.

Or

What is immunoglobulin? Expalin its structure, type and function.

2. Write a note on primary lymphoid organ.

Or

Describe the ELISA process.

3. What is complement? Explain the complement activation process.

Or

Describe the transplantation process.

4. Compare the type II and type III hypersensitive reaction.

Or

Write a note on T cell receptor complex.

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