

Roll No.

Total Printed Pages - 8

F- 537

M.Sc. (Second Semester)
EXAMINATION, May - June, 2022
ZOOLOGY
Paper IV
(Immunology and Developmental Biology)

*Time : Three Hours]**[Maximum. Marks:80***Note: Attempt all sections as directed.**

Section - A
(Objective/Multiple Type Questions)

(1 mark each)**Note: Attempt all questions. Choose the correct answer.**

1. Specific feature of mammalian immune system is:

- (A) Memory
- (B) Specificity
- (C) Identification
- (D) All the above

2. Prophylaxis is.

- (A) Prevention of a disease
- (B) Suffering from disease
- (C) Treatment of disease
- (D) None

3. Natural, Inherited defense is -

- (A) Skin
- (B) Tears
- (C) Sweat
- (D) All the above

4. Interferons are -

- (A) Antiviral protein
- (B) Antibodies
- (C) Antigens
- (D) None

5. Large pathogens are phagocytosed by

- (A) Macrophages
- (B) Monocytes
- (C) Dendritic cells
- (D) Null cells

P.T.O.**F- 537**

[3]

6. CD⁴ cells are:
- (A) T_H cells
 - (B) T_S cells
 - (C) T_C cells
 - (D) T_D cells
7. The surface of a large antigen on which the antibody will bind is:
- (A) Active site
 - (B) Antigenic site
 - (C) Epitope
 - (D) Hapten
8. All are haptens, except
- (A) Lysozyme
 - (B) Dinitrophenol
 - (C) Urcishiol
 - (D) Ferrous oxide
9. Which one of the cell components is the most powerful antigen?
- (A) Polysaccharides
 - (B) Nucleic acids
 - (C) Structural proteins
 - (D) Lipids

[4]

10. Which antibody 'cross' the placenta:
- (A) Ig G
 - (B) Ig A
 - (C) Ig D
 - (D) Ig M
11. Which immunoglobulin is largest.
- (A) Ig G
 - (B) Ig A
 - (C) Ig D
 - (D) Ig M
12. Anaphylatic shock is caused by:
- (A) Penicillin
 - (B) Tetracyclin
 - (C) Ampicilin
 - (D) None
13. Primary Immune response is generated:
- (A) First attack of Pathogen
 - (B) Second attack of Pathogen
 - (C) Repeated attack of Pathogen
 - (D) All the above

[5]

14. Auto immune disease is:

- (A) Hashimoto Disease
- (B) Cholera
- (C) Titanus
- (D) AIDS

15. Human eggs are:

- (A) Alecithal
- (B) Microlicithal
- (C) Mesolecithal
- (D) Megalecithal

16. Holoblastic cleavage is:

- (A) Complete
- (B) Postial
- (C) Horizontal
- (D) All the above

17. Fertilizin and antifertilizin acts as:

- (A) Antagonistic
- (B) Lock and Key
- (C) Repulsive
- (D) None of these

F- 537

P.T.O.

[6]

18. Organizer is:

- (A) Lips of blastopore
- (B) Embryonal part which stimulate development of other part.
- (C) Part to stop development
- (D) None of the above

19. Which is most common teratogen.

- (A) Alcohol
- (B) Protein
- (C) Egg
- (D) Chicken

20. This embryo has parasitic mode of nutrition.

- (A) Mammalian embryo
- (B) Bird's embryo
- (C) Amphibian embryo
- (D) Reptilian embryo

Section - B

(Very Short Answer Type Question)

(2 marks each)

Note: Attempt all questions.

1. Give the names of four layers of defense.

F- 537

[7]

2. Define active immunity.
3. Name the receptors of B lymphocyte.
4. How many domains are present in immunoglobulins.
5. Explain cross presentation.
6. Explain fate maps.
7. Define teratology.
8. Explain the function of fertilizin.

Section - C

(Short Answer Type Questions)

(3 marks each)

Note: Attempt all questions.

1. Explain the process of phagocytosis.
2. Explain Bursa of Fabricius.
3. Describe the dendritic cells
4. Explain primary immune response.
5. Explain the biological properties of IgG.
6. Explain the mechanism of delayed hyper sensitivity.
7. Explain the different types of cleavage.
8. Explain the process of neural tube formation.

[8]

Section - D

(Long Answer Type Questions)

(5 marks each)

Note: Attempt all questions.

1. Write an essay on the various phenomena of innate immunity.

OR

Explain the different types of B lymphocyte.

2. Describe the cellular immune response.

OR

Describe the structure of antibodies.

3. Describe the major and minor Histocompatibility complex.

OR

Explain Hypersensitivity.

4. Describe Histogenesis.

OR

Explain Teratology.