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**DHANALAKSHMI SRINIVASAN COLLEGE  
OF ARTS & SCIENCE FOR WOMEN  
(AUTONOMOUS)**

(For Candidates admitted from 2020 - 2021 onwards)



**UG DEGREE EXAMINATIONS APRIL - 2021**

**B.Sc., - BIOTECHNOLOGY**

**IMMUNOLOGY**

**Time: 3 Hrs**

**Max.Marks: 75**

**PART - A**

**CHOOSE THE CORRECT ANSWER**

**(10X1=10)**

1. Immunity acquired after an infection is

- |                    |                       |
|--------------------|-----------------------|
| a) active immunity | b) Passive immunity \ |
| c) Innate immunity | d) Both B and C       |

2. Innate immunity is provided by

- |               |               |                  |                  |
|---------------|---------------|------------------|------------------|
| a) Phagocytes | b) Antibodies | c) T-Lymphocytes | d) B-Lymphocytes |
|---------------|---------------|------------------|------------------|

3. The basic structure of antibodies are \_\_\_\_\_

- |             |             |           |               |
|-------------|-------------|-----------|---------------|
| a) Y-shaped | b) X-shaped | c) Linear | d) Hyperbolic |
|-------------|-------------|-----------|---------------|

4. Which of these immunoglobulins is present in external secretion?

- |        |        |        |        |
|--------|--------|--------|--------|
| a) IgG | b) IgM | c) IgA | d) IgE |
|--------|--------|--------|--------|

5. The principal developmental organ of T cells corresponds to the

- |                                    |                     |
|------------------------------------|---------------------|
| a)Thymus                           | b)Bone Marrow       |
| c)Both options A and B are correct | d)None of the above |

6. Which of the following is responsible for B-cell activation?

- |              |             |            |            |
|--------------|-------------|------------|------------|
| a) Infection | b) Antibody | c) Antigen | d) Allergy |
|--------------|-------------|------------|------------|

7. The first vaccine was developed by

- |                  |                  |                     |                   |
|------------------|------------------|---------------------|-------------------|
| a) Louis Pasteur | b) Edward Jenner | c) Carl Landsteiner | d) Joseph Miester |
|------------------|------------------|---------------------|-------------------|

8. Active immunity may be gained by

- |                      |             |            |                 |
|----------------------|-------------|------------|-----------------|
| a) Natural infection | b) vaccines | c) toxoids | d) all of these |
|----------------------|-------------|------------|-----------------|

9. Majority of auto immune diseases are

- |                        |                        |
|------------------------|------------------------|
| a) cell mediated       | b) antibody mediated   |
| c) macrophage mediated | d) mast cells mediated |

10. Rheumatoid arthritis mostly occur in individuals carrying
- a) HLA-DR4 gene (HLA-human leucocyte antigen)
  - b) HLA-DR1 gene
  - c) HLA-DR3 gene
  - d) all of the above.

**PART - B**

**ANSWER ALL THE QUESTIONS**

**(5X7=35)**

11. a) Describe innate immunity.

**(OR)**

b) Add note on historical development of immunology.

12. a) Discuss about monoclonal antibody.

**(OR)**

b) What are CD molecules add note on it?

13. a) Mention the role of T cell receptors and its determinations.

**(OR)**

b) Specify the subclasses of immunoglobulins.

14. a) What is protein based vaccine? Exemplify it.

**(OR)**

b) Mention the production and application of vaccines.

15. a) What is Immunity? Specify with an example of fungal vaccine.

**(OR)**

b) Mention the methods of immunotherapies.

**PART - C**

**ANSWER ANY THREE QUESTIONS**

**(3X10=30)**

- 16. Elaborate in detail about Humoral and Cell mediated immunity.
- 17. Sketch out the Lymphoid Organs and its function.
- 18. Explain briefly on B cell development, Activation and maturation.
- 19. Mention the role of Active and passive immunization.
- 20. Explain in detail about Autoimmunity with Examples.