

Chapter 1 Introduction to Immunity and the Immune System

Multiple Choice

Identify the choice that best completes the statement or answers the question.

- _____ 1. The scientist known for his use of attenuated vaccines and as the father of immunology is:
a. Edward Jenner. c. Louis Pasteur.
b. Elie Metchnikoff. d. Emil von Behring.
- _____ 2. The field of immunology can be credited for its contributions to the development of:
a. bacterial identification. c. surgery.
b. vaccines. d. phlebotomy.
- _____ 3. The ancient practice of inhaling powder from smallpox scabs is an early version of:
a. cross reactivity. c. susceptibility.
b. attenuated vaccination. d. cell identification.
- _____ 4. Attenuation can take place through _____ a pathogen.
a. Freezing c. Aging
b. Growing d. Flooding
- _____ 5. Humoral immunity was considered the most important aspect of immunity for a time in history because of the work of _____, who received the Nobel Prize in Physiology for his work in serum therapy.
a. Louis Pasteur c. Almroth Wright
b. Emil von Behring d. Edward Jenner
- _____ 6. The discovery of _____ helped bring the importance of cellular immunity to light.
a. Antibodies c. Opsonins
b. Phagocytosis d. Bacterial toxin neutralization by serum
- _____ 7. Phagocytosis is appropriately categorized into which of the following?
a. Adaptive immunity c. Humoral immunity
b. Innate immunity d. Specific immunity
- _____ 8. A patient with a viral infection that has initiated their cell-mediated immunity might have an increased number of which leukocytes in their peripheral blood?
a. Lymphocytes c. Monocytes
b. Neutrophils d. Basophils
- _____ 9. Which of the following cells can phagocytize foreign microbes?
a. T lymphocytes c. Macrophages
b. B lymphocytes d. Natural killer (NK) cells
- _____ 10. Which of the following cells is a phagocytic cell that has a similar morphology to nerve cells?
a. Neutrophils c. Mast cells

b. Dendritic cells

d. Macrophages

- ____ 11. Macrophages play a key role in adaptive immunity through which function?
- a. Phagocytosis
 - b. Anti-tumor activity
 - c. Presenting phagocytosed microbes to T lymphocytes
 - d. Microbial killing
- ____ 12. Which is a key antigen-presenting cell found in the digestive tract?
- a. Basophil
 - b. Macrophage
 - c. Dendritic cell
 - d. Mast cell
- ____ 13. Maturation and differentiation of important immune cells happens within the:
- a. blood.
 - b. bone marrow.
 - c. lymph nodes.
 - d. spleen.
- ____ 14. A patient with a weakened immune response may need to have which primary lymphoid tissue examined?
- a. Spleen
 - b. Mucosal associated lymphoid tissue (MAST)
 - c. Thymus
 - d. Lymph nodes
- ____ 15. Lymphocytes come in contact with foreign antigens and activate the adaptive immune system in which lymphoid tissue?
- a. Bone marrow
 - b. Peripheral blood
 - c. Thymus
 - d. Cutaneous-associated lymphoid tissue (CALT)
- ____ 16. Which lymphoid tissue can protect us against pathogens we eat?
- a. MALT
 - b. CALT
 - c. Lymph nodes
 - d. Spleen
- ____ 17. Secondary lymphoid tissues that are located near our joints and serve as a collecting duct for lymph fluid are:
- a. spleen cells.
 - b. lymph nodes.
 - c. MALT.
 - d. CALT.
- ____ 18. Foreign microbes that enter through a cut in our hand should expect defense from which lymphoid tissue?
- a. CALT
 - b. Spleen
 - c. MALT
 - d. Thymus
- ____ 19. Macrophages line the _____ found within the lymph nodes.
- a. Outer cortex
 - b. Inner medulla
 - c. Paracortex
 - d. Sinuses

- ____ 20. B cells activate and generate B-cell memory in the ____ of the lymph nodes.
- a. Sinuses
 - b. Secondary follicles
 - c. Paracortex
 - d. Primary follicles
- ____ 21. Antigen presentation happens within the ____ of the lymph nodes.
- a. Primary follicles
 - b. Secondary follicles
 - c. Inner medulla
 - d. Sinuses
- ____ 22. We can identify cells by proteins found on their cell surfaces. These are known as:
- a. adhesion molecules.
 - b. antibodies.
 - c. chemotaxins.
 - d. clusters of differentiation.
- ____ 23. Which CD marker represents those found on B lymphocytes?
- a. CD4
 - b. CD20
 - c. CD8
 - d. CD3
- ____ 24. A patient with antibodies in their serum to a particular virus has activated which immune cells?
- a. NK cells
 - b. Macrophages
 - c. B lymphocytes
 - d. T lymphocytes
- ____ 25. Humoral immunity is a key function of which cell?
- a. NK cells
 - b. T lymphocytes
 - c. Macrophages
 - d. B lymphocytes
- ____ 26. Which lymphocyte is part of our innate immunity?
- a. CD4 cells
 - b. CD8 cells
 - c. CD19,20 cells
 - d. NK cells
- ____ 27. Our first line of defense against virally infected cells and tumor cells are:
- a. B lymphocytes.
 - b. T lymphocytes.
 - c. neutrophils.
 - d. NK cells.

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Answer Section

MULTIPLE CHOICE

1. ANS: C	PTS: 1	OBJ: 1	MSC: Taxonomy 2
2. ANS: B	PTS: 1	OBJ: 1	MSC: Taxonomy 1
3. ANS: B	PTS: 1	OBJ: 2	MSC: Taxonomy 2
4. ANS: C	PTS: 1	OBJ: 1	MSC: Taxonomy 1
5. ANS: B	PTS: 1	OBJ: 3	MSC: Taxonomy 1
6. ANS: B	PTS: 1	OBJ: 3	MSC: Taxonomy 2
7. ANS: B	PTS: 1	OBJ: 4	MSC: Taxonomy 2
8. ANS: A	PTS: 1	OBJ: 4	MSC: Taxonomy 3
9. ANS: C	PTS: 1	OBJ: 5	MSC: Taxonomy 1
10. ANS: B	PTS: 1	OBJ: 5	MSC: Taxonomy 1
11. ANS: C	PTS: 1	OBJ: 6	MSC: Taxonomy 2
12. ANS: D	PTS: 1	OBJ: 6	MSC: Taxonomy 1
13. ANS: B	PTS: 1	OBJ: 7	MSC: Taxonomy 1
14. ANS: C	PTS: 1	OBJ: 7 & 8	MSC: Taxonomy 3
15. ANS: D	PTS: 1	OBJ: 7 & 8	MSC: Taxonomy 3
16. ANS: A	PTS: 1	OBJ: 8	MSC: Taxonomy 3
17. ANS: B	PTS: 1	OBJ: 8 & 9	MSC: Taxonomy 1
18. ANS: A	PTS: 1	OBJ: 8	MSC: Taxonomy 3
19. ANS: D	PTS: 1	OBJ: 9	MSC: Taxonomy 1
20. ANS: B	PTS: 1	OBJ: 9 & 10	MSC: Taxonomy 2
21. ANS: A	PTS: 1	OBJ: 9 & 10	MSC: Taxonomy 2
22. ANS: D	PTS: 1	OBJ: 11	MSC: Taxonomy 1
23. ANS: B	PTS: 1	OBJ: 11	MSC: Taxonomy 1
24. ANS: C	PTS: 1	OBJ: 12	MSC: Taxonomy 3
25. ANS: D	PTS: 1	OBJ: 12	MSC: Taxonomy 2
26. ANS: D	PTS: 1	OBJ: 4, 11, & 13	MSC: Taxonomy 2
27. ANS: D	PTS: 1	OBJ: 13	MSC: Taxonomy 2