|  |
| --- |
| Fill in the blanks to complete the following statements. ​ |

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| 1. ​The reproductive process through which a cell divides into two equal parts is \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

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| *ANSWER:* | ​mitosis |

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| 2. The dilatation of blood vessels allowing the passage of fluid, antibodies, and WBCs into the infected ​body area is known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

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| *ANSWER:* | inflammation​ |

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| 3. Cells involved in the body’s immune response utilize a process called \_\_\_\_\_\_\_\_\_\_\_\_\_\_ to ingest microorganisms. ​

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| *ANSWER:* | phagocytosis​ |

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| 4. ​The severity of disease produced by a pathogen is referred to as \_\_\_\_\_\_\_\_\_\_\_\_.

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| --- | --- |
| *ANSWER:* | virulence​ |

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| 5. \_\_\_\_\_\_\_\_\_\_\_ are tiny hair-like projections that help expel foreign particles from the respiratory tract.​

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| *ANSWER:* | Cilia​ |

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| Identify all answer choices that best complete the question. |

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| 6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ include cells from humans, animals, plants, protozoa, fungi, and most algae.

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| *ANSWER:* | Eukaryotes​ |

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| Fill in the blanks to complete the following statements. ​ |

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| 7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ recognize antigens located on the pathogens’ cell walls.

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| *ANSWER:* | Antibodies​ |

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| Select the best response to the question. |

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| 8. ​Which of the following patients is at high risk of becoming ill from a pathogen with low virulence?

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| --- | --- | --- |
|   | a.  | A patient with cancer undergoing chemotherapy. |
|   | b.  | ​A patient with otitis media (ear infection). |
|   | c.  | ​A patient who has had very few illnesses. |
|   | d.  | ​A patient with a laceration. |

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| *ANSWER:* | a |

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| 9. Which of the following is characteristic of a virus?

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| --- | --- | --- |
|   | a.  | ​Cannot exist outside of a living host. |
|   | b.  | ​Does not contain a nucleus. |
|   | c.  | ​Uses the host cell’s reproductive system. |
|   | d.  | Has both beneficial and harmful forms. |

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| *ANSWER:* | c |

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| 10. ​You are reviewing a patient’s sputum culture results that have tested positive for *Staphylococcus epidermidis*. How do you interpret these findings?

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|   | a.  | ​The patient has a respiratory infection. |
|   | b.  | ​The patient’s sputum is no longer sterile. |
|   | c.  | ​This is part of the patient’s normal flora. |
|   | d.  | ​The results are inconclusive. |

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| *ANSWER:* | c |

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| 11. What should be considered when a patient’s urine culture result is positive for *Escherichia coli*?

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| --- | --- | --- |
|   | a.  | ​This is an example of a pathogen that has invaded the body. |
|   | b.  | ​This is a normal finding; no treatment is needed. |
|   | c.  | Normal flora is causing infection in a part of the body where it doesn’t belong. |
|   | d.  | ​The urine culture must be repeated to validate the findings. |

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| *ANSWER:* | c |

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| 12. All of the following are functions of the cell membrane EXCEPT:

|  |  |  |
| --- | --- | --- |
|   | a.  | ​maintaining cell shape. |
|   | b.  | ​allowing waste removal from the cell. |
|   | c.  | allowing nutrients into the cell. |
|   | d.  | ​protecting the cell from the environment. |

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| --- | --- |
| *ANSWER:* | a |

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| 13. ​The nucleus of a cell is responsible for which of the following functions?

|  |  |  |
| --- | --- | --- |
|   | a.  | ​maintaining the shape of the cell |
|   | b.  | ​protecting the integrity of the cell |
|   | c.  | ​controlling the cell’s activities |
|   | d.  | ​production and storage of energy |

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| --- | --- |
| *ANSWER:* | c |

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| 14. Thoroughly cleaning a patient’s room after discharge helps limit the spread of disease by:

|  |  |  |
| --- | --- | --- |
|   | a.  | ​common vehicle transmission. |
|   | b.  | ​airborne transmission. |
|   | c.  | ​indirect contact. |
|   | d.  | ​direct contact. |

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| --- | --- |
| *ANSWER:* | c |

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| ​Match the mode of transmission with their description.

|  |  |
| --- | --- |
| a.  | ​contact transmission |
| b.  | ​common vehicle transmission |
| c.  | ​vector borne transmission |
| d.  | ​airborne transmission |

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| 15. ​Touching the TV remote after an ill person has used it.

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| *ANSWER:* | a |

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| 16. Eating meat that is contaminated with bacteria.

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| --- | --- |
| *ANSWER:* | b |

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| 17. ​Sitting close to a friend with the flu who is coughing frequently.

|  |  |
| --- | --- |
| *ANSWER:* | d |

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| 18. ​Being bitten by an animal infected with rabies.

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| --- | --- |
| *ANSWER:* | c |

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| ​Select True or False.  |

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| 19. Previous exposure to a disease is necessary to trigger the body’s innate immune response.

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| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

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| --- | --- |
| *ANSWER:* | False |

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| 20. Most microorganisms in the body have the potential to cause illness.

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| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

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| --- | --- |
| *ANSWER:* | False |

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| 21. Some bacteria form a capsule or slime layer around their cell wall in order to promote motility.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

|  |  |
| --- | --- |
| *ANSWER:* | False |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 22. ​Phagocytes are both mobile and found in fixed locations throughout the body.

|  |  |  |
| --- | --- | --- |
|   | a.  | True |
|   | b.  | False |

|  |  |
| --- | --- |
| *ANSWER:* | True |

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| Identify all answer choices that best complete the question. |

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| 23. Which of the following are “kingdoms” used for classification of living organisms?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​plant |
|   | b.  | ​microbes |
|   | c.  | ​protista |
|   | d.  | ​animal |

|  |  |
| --- | --- |
| *ANSWER:* | a, c, d |

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| 24. ​The adaptive immune response includes:

|  |  |  |
| --- | --- | --- |
|   | a.  | ​humoral immune response. |
|   | b.  | ​innate immune response. |
|   | c.  | ​antigen immune response. |
|   | d.  | ​cell-mediated immune response. |

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| *ANSWER:* | a, d |

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| 25. ​Which of the following are examples of protective barriers in the body?

|  |  |  |
| --- | --- | --- |
|   | a.  | ​phagocytes |
|   | b.  | white blood cells |
|   | c.  | ​normal digestive flora |
|   | d.  | ​oil and sweat on skin |

|  |  |
| --- | --- |
| *ANSWER:* | c, d |

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| 26. Which of the following statements are true regarding cell-mediated immune response?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​Protects against bacteria and toxins.  |
|   | b.  | ​T-cells play a key role in this process.  |
|   | c.  | ​B-cells play a key role in this process.  |
|   | d.  | ​Protects against viruses and fungi. |

|  |  |
| --- | --- |
| *ANSWER:* | b, d |

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| 27. ​The ability of an organism to cause infection is determined by:

|  |  |  |
| --- | --- | --- |
|   | a.  | ​the number of organisms. |
|   | b.  | ​the organism’s virulence. |
|   | c.  | ​the status of the host’s immune system. |
|   | d.  | ​the portal of entry. |

|  |  |
| --- | --- |
| *ANSWER:* | a, b, c, d |

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| 28. Which of the following are necessary for energy production within the mitochondria of a cell?​

|  |  |  |
| --- | --- | --- |
|   | a.  | ​glucose |
|   | b.  | lysosomes |
|   | c.  | ​proteins |
|   | d.  | ​oxygen |

|  |  |
| --- | --- |
| *ANSWER:* | a, d |

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| 29. ​Which of the following are found in prokaryotic cells?

|  |  |  |
| --- | --- | --- |
|   | a.  | ​cell membrane |
|   | b.  | ​DNA |
|   | c.  | ​cell wall |
|   | d.  | ​nucleus |

|  |  |
| --- | --- |
| *ANSWER:* | a, b, c |

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