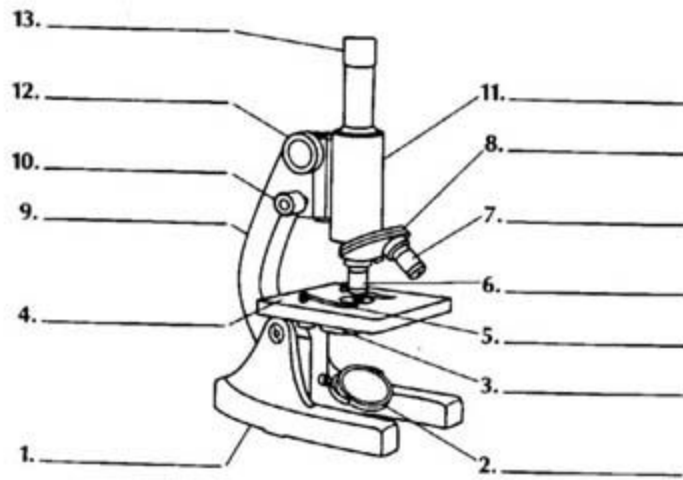


Names: _____

Score: __ / 74

Benjamin N. Cardozo Microbe Mission

- True/False Questions are worth 1 point each
- Multiple Choice Questions/Matching Questions are worth 2 points each
- Short Answer Questions are worth 3 points each



1. What type of microscope is this (3)? _____
2. Which number corresponds to the coarse adjustment knob? (2) _____
3. Which number corresponds to the diaphragm? (2) _____
4. Write the number that corresponds to the part that you would use to fine-tune the focus of your specimen and name it? (2) _____
5. Lichens are a life form that is a symbiotic partnership of two separate organisms, (2)
 - a. Virus and protozoan
 - b. Bacterium and fungi
 - c. Algae and virus
 - d. Fungi and Algae
6. Which conditions are most suitable for microbial growth? (2)
 - a. Organic food (proteins, fats, carbohydrates) and moisture

- b. Acidic pH and low temperature
 - c. Dehydration and high temperature
 - d. Heat and basic pH
7. What is a group of spherical bacteria that occur in a chain called (2)
- a. Streptococci
 - b. Diplococci
 - c. Staphylococci
 - d. Sarcina
8. Which of the following does not have a eukaryotic cell? (2)
- a. Algae
 - b. Bacteria
 - c. Fungi
 - d. Protozoa
9. Which two organelles have DNA similar to that of a prokaryotic cell and can reproduce independent of the rest of the eukaryotic cell? (2)
- a. Cilia and endoplasmic reticulum
 - b. Ribosomes and Golgi Apparatus
 - c. Lysosomes and Mitochondria
 - d. Mitochondria and Chloroplasts
10. Which disease is not associated with prions? (2)
- a. Bovine Spongiform Encephalopathy or Mad Cow Disease
 - b. Scrapie
 - c. Hodgkin's lymphoma
 - d. Kuru
11. List five main types of microbes(3)
-
12. What is the main function of the red blood cell? (2)
- a. Ingesting pathogens
 - b. Transporting oxygen
 - c. Transmitting messages
 - d. Produce enzymes and hormones
13. Which answer choice describes the use of microbes to remove pollutants from the environment?
(2)

- a. Bioremediation
- b. Biodegradation
- c. Biotransformation
- d. Biocatalysis

Write whether each statement is true or false.

- 14. Viruses are considered living organisms and are found wherever there is a cell to invade ____ (1)
- 15. Microbes are present in every known ecosystem ____ (1)
- 16. Archaea serve as consumers at the lower ends of the food web ____ (1)
- 17. Aids is the disease of the human immune system caused by the HIV virus ____ (1)

Match the bacteria to its shape (10 total):

- | | |
|--------------------------|------------------|
| 18. Bacillus _____ | a. comma-shaped |
| 19. Spirillum _____ | b. ball-shaped |
| 20. Coccus _____ | c. spiral-shaped |
| 21. Vibrio _____ | d. Ovoid-shaped |
| 22. Cocco-bacillus _____ | e. rod-shaped |

23. Which of the following is NOT a viral disease? (2)

- a. AIDS
- b. Measles
- c. Anthrax
- d. Rubella

24. Which answer choice best describes a parasitic worm? (2)

- a. Have complex life cycles that involve substantial time outside their human hosts
- b. Produce algal blooms and toxins that can be taken in by filter feeders
- c. Killed by antifungal medications in the form of topical agents or pills
- d. Prevented by vaccination or use of antibiotics

25. Which of the following is not a benefit that microbes provide? (2)

- a. Oil spill cleanup
- b. Biofertilizers
- c. Mining
- d. Greenhouse Gas cleanup

26. What fuels can potentially be made from algae? (2)

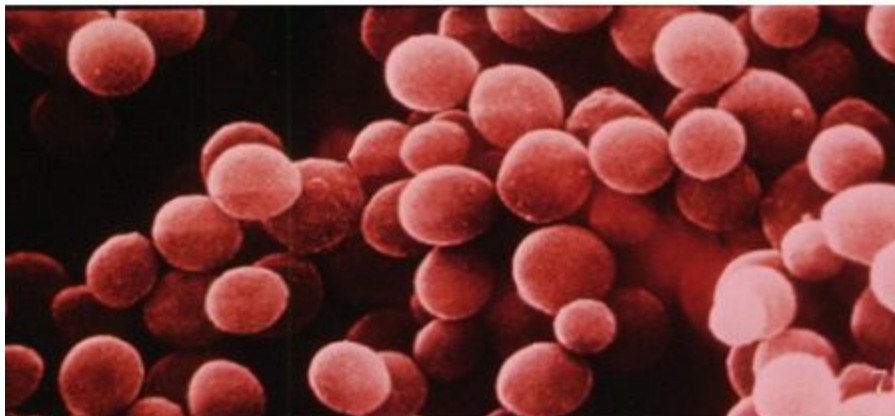
- a. Gasoline
- b. Ethanol
- c. Biodiesel
- d. All of the above

27. (2)



What is the image pictured above of, and what process takes place in it?

- a. Mitochondria, ATP production
- b. Chloroplast, Photosynthesis
- c. Ribosomes, protein production
- d. Golgi Apparatus, packaging

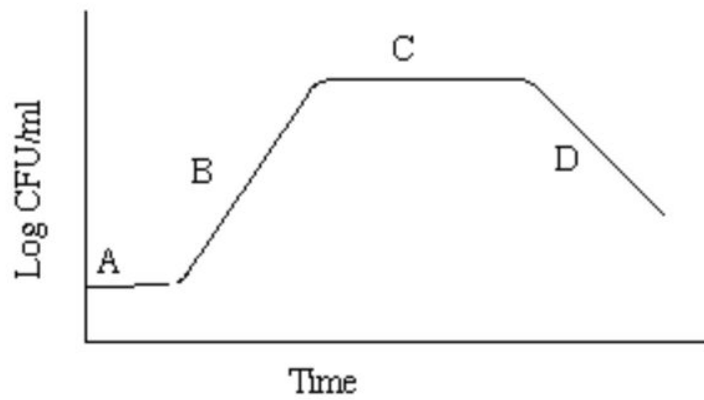


28. What is the scientific term for the shape of these bacteria? (3) _____

29. Is this colony gram-positive, gram-negative, or neither? (3) _____

30. What microscope probably took this image? (3) _____

31. Name two possible diseases/infections that this group of bacteria could cause (3)



32. What type of microbe growth does the graph above show? (2)

- a. Continuous culture
- b. Open culture
- c. Semi-continuous culture
- d. Closed culture

33. Name what phase "A" is _____ (2)

34. Name what phase "B" is _____ (2)

35. Name what phase "C" is _____ (2)

36. Name what phase "D" is _____ (2)