

Microbiology / Active Lecture Questions  
Chapter 11 / Prokaryotes: Domains Bacteria & Archaea

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2 If you Gram-stained the bacteria that live in the human intestine, you would expect to find mostly

- a. gram-positive cocci.
- b. gram-negative rods.
- c. gram-positive, endospore-forming rods.
- d. gram-negative, nitrogen-fixing bacteria.
- e. all of the above

3 Which of the following does not belong with the others?

- a. Enterobacteriales
- b. Lactobacillales
- c. Legionellales
- d. Pasteurellales
- e. Vibrionales

4 Pathogenic bacteria can be

- a. motile.
- b. rods.
- c. cocci.
- d. anaerobic.
- e. all of the above

5 Which of the following is an intracellular parasite?

- a. Rickettsia
- b. Mycobacterium
- c. Bacillus
- d. Staphylococcus
- e. Streptococcus

6 Which of the following terms is the most specific?

- a. bacillus
- b. Bacillus
- c. gram-positive
- d. endospore-forming rods and cocci
- e. anaerobic

7 Which one of the following does not belong with the others?

- a. Enterococcus
- b. Lactobacillus
- c. Staphylococcus
- d. Streptococcus
- e. all are grouped together

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- 8 Which of the following pairs is mismatched?
- anaerobic endospore-forming gram-positive rods—Clostridium
  - facultatively anaerobic gram-negative rods—Escherichia
  - facultatively anaerobic gram-negative rods—Shigella
  - pleomorphic gram-positive rods—Corynebacterium
  - spirochete—Helicobacter
- 9 Spirillum is not classified as a spirochete because spirochetes
- do not cause disease.
  - possess axial filaments.
  - possess flagella.
  - are prokaryotes.
  - none of the above
- 10 When Legionella was newly discovered, it was classified with the pseudomonads because
- it is a pathogen.
  - it is an aerobic gram-negative rod.
  - it is difficult to culture.
  - it is found in water.
  - none of the above
- 11 Cyanobacteria differ from purple and green phototrophic bacteria because cyanobacteria
- produce oxygen during photosynthesis.
  - do not require light.
  - use H<sub>2</sub>S as an electron donor.
  - have a membrane-enclosed nucleus.
  - all of the above
- 12 Which of the following is NOT a characteristic of spirochetes?
- Easily observed with brightfield microscopy
  - Gram-negative
  - Difficult to culture in vitro
  - Helical shape
- 13 Streptococcus pyogenes belongs to the
- Proteobacteria
  - Gram-positive bacteria
  - Gram-negative bacteria
  - Spirochetes

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14 You have isolated a prokaryotic cell. The first step in identification is

- a. Endospore stain
- b. Lactose fermentation
- c. Gram stain
- d. Flagella stain

15 Which of the following are commonly found in the intestines of humans?

- a. Gram-positive cocci
- b. Facultatively anaerobic gram-negative rods
- c. Aerobic helical bacteria
- d. Gram-negative aerobic rods and cocci

16 The genus *Pseudomonas* consists of organisms that are

- a. Aerobic
- b. Gram-positive rods
- c. Gram-positive cocci
- d. Nonmotile

17 The phylogenetic relationship in proteobacteria is based on

- a. rRNA studies
- b. mRNA studies
- c. DNA studies
- d. tRNA studies

18 Blue-green algae are now called

- a. Chlorobi
- b. Chloroflexi
- c. Campylobacter
- d. Cyanobacteria

19 Elementary bodies are found in

- a. *E. coli*
- b. Streptococcus
- c. Chlamydiae
- d. Staphylococcus

20 A primary difference between cyanobacteria and purple sulfur and purple nonsulfur phototrophic bacteria is

- a. Color
- b. Cell wall type
- c. Electron donor for carbon dioxide reduction
- d. Energy source

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21 Which genus of bacteria is responsible for causing more infections in every area of the human body?

- a. Streptococcus
- b. Neisseria
- c. Staphylococcus
- d. Salmonella

22 In a laboratory, Staphylococcus and Streptococcus are easily differentiated by their

- a. Gram stain reaction
- b. Growth in high salt concentrations
- c. Ability to cause disease
- d. Cell shape

23 Which of the following is NOT gram-positive?

- a. Treponema
- b. Mycobacterium
- c. Bacillus
- d. Corynebacterium

24 Bartonella henselae causes

- a. Ehrlichiosis
- b. Cat-scratch disease
- c. Rocky Mountain spotted fever
- d. Crown gall

25 Which of these organisms is gram-positive?

- a. Pseudomonas
- b. Salmonella
- c. Streptococcus
- d. Rickettsia

26 What should you do if you suspect a patient has tuberculosis?

- a. Check for motility
- b. Perform an acid-fast stain
- c. Perform a Gram stain
- d. Look at a wet mount

27 Which of the following is gram+?

- a. Streptomyces
- b. Bacteriodes
- c. Salmonella
- d. None of these

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28 Which of the following is mismatched?

- a. Anamorph-produces asexual spores
- b. Plasmogamy- union of two haploid cells
- c. Karyogamy- fusion of nucleus
- d. Meiosis- cell division resulting in haploid cells
- e. Deuteromycota-phylum of animals