

Lec 2 Quiz:

1. Which of the following is NOT a characteristic of Gram-positive bacteria?

- a) Thick peptidoglycan layer
- b) Presence of an outer membrane
- c) Staining violet after Gram stain
- d) Presence of teichoic acids
- e) High sensitivity to penicillin

The logo for NOVA, featuring the word "NOVA" in a stylized purple font with small star-like symbols above the 'V' and 'A'.

2. Which of the following is a function of teichoic acids in Gram-positive bacteria?

- a) Motility
- b) Anchor peptidoglycan to the plasma membrane
- c) Inhibition of phagocytosis
- d) Energy production
- e) Replication

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3. What is the primary structural component of bacterial flagella?

- a) Tubulin
- b) Actin
- c) Flagellin
- d) Myosin
- e) Peptidoglycan

4. In which type of bacterial arrangement do cells form a cuboidal or geometric structure?

- a) Diplococci**
- b) Sarcinae**
- c) Staphylococci**
- d) Streptococci**
- e) Diplobacilli**



5. Which of the following statements about bacterial pili is FALSE?

- a) Pili are hair-like structures on the surface of bacteria**
- b) They can aid in attachment to host cells**
- c) Pili are involved in the transfer of genetic material during conjugation**
- d) Pili play a role in bacterial motility**
- e) They are found in both Gram-positive and Gram-negative bacteria**

6. Which of the following components is unique to Gram-negative bacteria?

- a) Outer membrane**
- b) Teichoic acids**
- c) Thick peptidoglycan layer**
- d) Capsule**
- e) Cytoplasmic membrane**



7. Which type of bacteria has a corkscrew-shaped body and is known for high flexibility?

- a) Vibrio**
- b) Spirochaetes**
- c) Bacilli**
- d) Spirillum**
- e) Cocci**

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8. The presence of peritrichous flagella means:

- a) A single flagellum at one end**
- b) Multiple flagella clustered at one end**
- c) Flagella at both ends**
- d) Flagella distributed over the entire surface**
- e) No flagella**

9. Which of the following is TRUE about peptidoglycan?

- a) It is found in both Gram-positive and Gram-negative bacteria**
- b) It contains cellulose and chitin**
- c) It is the primary structural component of eukaryotic cells**
- d) It consists of repeating units of N-acetylgalactosamine (NAG)**
- e) It provides motility to bacteria**

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10. Which bacterial structure is responsible for protecting the bacterium against osmotic lysis?

- a) Capsule**
- b) Peptidoglycan layer**
- c) Ribosomes**
- d) Mesosomes**
- e) Flagella**

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11. Which component of the Gram-negative bacterial cell wall is associated with endotoxic shock in humans?

- a) Teichoic acid**
- b) Lipopolysaccharide**
- c) Peptidoglycan**
- d) Cytoplasmic membrane**
- e) Lipoteichoic acid**

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12. Which bacterial arrangement consists of cells dividing in random planes to form grape-like clusters?

- a) Streptococci**
- b) Diplococci**
- c) Staphylococci**
- d) Tetrads**
- e) Bacilli**



13. Which of the following accurately describes sex pili?

- a) They are present on all bacterial cells**
- b) They allow the transfer of DNA between bacterial cells**
- c) They are involved in bacterial motility**
- d) They are shorter than somatic pili**
- e) They are only found in Gram-positive bacteria**

ANSWERS:

- 1.b) Presence of an outer membrane**
- 2.b) Anchor peptidoglycan to the plasma membrane**
- 3.c) Flagellin**
- 4.b) Sarcinae**
- 5.d) Pili play a role in bacterial motility**
- 6.a) Outer membrane**
- 7.b) Spirochaetes**
- 8.d) Flagella distributed over the entire surface**
- 9.a) It is found in both Gram-positive and Gram-negative bacteria**
- 10.c) Mycolic acid in the cell wall**
- 11.b) Peptidoglycan layer**
- 12.c) Staphylococci**
- 13.b) They allow the transfer of DNA between bacterial cells**

