1. This is a Gram stain. Is this bacterium Gram-positive or Gram-negative?

A. Gram-positive.
B. Gram-negative.
C. Cannot be determined.
2. Is this bacterium Gram-positive, Gram-negative, or acid-fast?

A. Gram-positive.
B. Gram-negative.
C. Acid-fast.
3. A bacterial cell wall contains a thin layer of peptidoglycan linked to arabinogalactan and an outer membrane containing large amounts of glycolipids—especially mycolic acids. This best describes:

A. an acid-fast cell wall.
B. a Gram-positive cell wall.
C. a Gram-negative cell wall.
4. Is this bacterium Gram-positive or Gram-negative?

A. Gram-positive.
B. Gram-negative.
C. Acid-fast.
5. Describe the Gram reaction and shape of this bacterium.

A. Gram-positive bacillus
B. Gram-negative bacillus
C. Gram-negative coccus
D. Acid-fast bacillus
6. Molecules found on a variety of defense cells of the body that bind PAMPs and trigger innate immunity are called:

A. adhesins.
B. invasins.
C. cytokines
D. pattern-recognition receptors.
7. Molecules such as IL-1, IL-8, and TNF-alpha that trigger an inflammatory response in the body are termed:

A. PAMPs
B. PRRs
C. adhesins
D. cytokines
8. Cell wall surface proteins that enable the bacterium to adhere intimately to host calls and other surfaces in order to colonize and resist flushing are called:

A. adhesins
B. invasins
C. PRRs
D. PAMPs
9. Bacterial cell walls contain molecules such as peptidoglycan, LPS, teichoic acids, and mannose. What is the significance of this?

A. These function as adhesins.
B. These function as invasins.
C. These function as PAMPs to induce innate immunity.