

Question 1:

According to the Center for Disease Control (CDC), catheter-associated urinary tract infections (CAUTIs) are one of the top _____ health-care associated infections that the U.S. is actively trying to eliminate.

2

4

Explanation:

According to the CDC's National State and Healthcare-Associated Infections progress report, CAUTIs are one of the top 4 health-care associated infections that the U.S. is focusing on eliminating.

Reference:

<http://www.cdc.gov/HAI/pdfs/progress-report/hai-progress-report.pdf>

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Question 2:

What is the name given to the layers of cells that line the lumen of the bladder?

urothelium

Explanation:

In general, there are three layers of cells that line the lumen of the bladder: basal, intermediate, and umbrella. Collectively, these cells are known as the urothelium.

calculi

nephrothelium

urinary stroma

Question 3:

What is one product of urease-mediated urea hydrolysis?

methanol

hydrogen peroxide

water (3 molecules)

ammonia (2 molecules)

Explanation:

Urea hydrolysis via urease produces carbonic acid and 2 molecules of ammonia.

Question 4:

The *P. mirabilis* HI4320 type strain genome contains _____ different operons that encode chaperone-usher fimbriae.

7

10

17

Explanation:

HI4320 contains 17 different chaperone-usher fimbriae operons, the most in any single strain of bacteria to date.

Reference:

Pearson M.M., et al., (2008) Complete genome sequence of uropathogenic *Proteus mirabilis*, a master of both adherence and motility. *J Bacteriol* 190, 4027-4037

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