

1. Name and list the correct order for the solutions used in Gram staining

Answer:

- i. Crystal violet
- ii. Gram's iodine
- iii. Alcohol
- iv. Safranin

2. A bacteria that rarely causes disease in healthy humans but may do so in situations where the immune system or other defense mechanism has been compromised by, for example, a burn, overuse of antibiotics or a stab wound, is known as:

Answer: Opportunistic

3. List the 3 major mechanism(s) of resistance to an antibiotic by a bacterium.

Answer:

1. Changing the target of the antibiotic.
2. Making enzymes that change and/or inactivate the antibiotic.
3. Reducing or eliminating the uptake of an antibiotic.

4. Organisms that are able to grow and survive at refrigeration temperatures are considered:

Answer: psychrophiles

5. Laboratory media designed to illustrate the ability (or not) of a bacterial to ferment sugars such as lactose are called:

Answer: Enrichment media

6. List 3 virulence factors (i.e. exotoxins) that can cause different clinical outcomes of an infection caused by *Staphylococcus aureus*

7. List two methods of inoculation that can be used to isolate a bacterial pathogen