Name: _____ **Date:** _____

Pathogen Prevention: Powerful Procedures for 8th Grade

Analyze transmission vectors and evaluate the efficacy of protective protocols like herd immunity and aseptic techniques to stop microbial spread.

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1. Which biological phenomenon occurs when a high percentage of a population becomes immune to a disease, making its spread unlikely even for those without immunity?

A. Biological Magnification
B. Herd Immunity
C. Genetic Bottleneck
D. Passive Diffusion

2. Zoonotic diseases are infections that are naturally transmitted from vertebrate animals to humans.

A. True
B. False

3. The process of _____ utilizes high heat to kill harmful pathogens in beverages like milk and juice without damaging the product's nutritional value.

A. Fermentation
B. Distillation
C. Pasteurization
D. Carbonation

4. In a hospital setting, which practice is specifically designed to create a field free from all microorganisms, including spores, to prevent surgical site infections?

A. Sanitization
B. Aseptic Technique
C. Social Distancing
D. Standard Precautions

5. Which of the following is an example of a 'vector-borne' transmission of a disease?

A. Contracting Cholera from contaminated water
B. Inhaling tuberculosis bacteria from a cough
C. Developing Malaria after a mosquito bite
D. Getting a cold from touching a doorknob

6. Antibiotics are powerful medicines; however, their overuse has led to 'antibiotic _____,' where bacteria evolve to survive the drugs meant to kill them.

A. Resilience
B. Cooperation
C. Resistance

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D. Tolerance

7. Antiseptics and disinfectants are identical; both are chemicals used exclusively on non-living surfaces like countertops.

A. True
B. False

8. When an epidemiologist refers to a 'fomite' in disease transmission, they are describing:

A. An inanimate object that can carry infection
B. A person who shows no symptoms of illness
C. The genetic material inside a virus
D. The primary host of a parasite

9. The _____ system is the body's complex network of cells and proteins that defends against infection through specialized responses like inflammation.

A. Endocrine
B. Immune
C. Circulatory
D. Nervous

10. The 'Innate Immune System' provides a rapid, non-specific response to pathogens, while the 'Adaptive Immune System' creates a targeted memory of specific invaders.

A. True
B. False