

1. \_\_\_\_\_ enables bacteria to respond and adapt to their environment much more rapidly by acquiring large DNA sequences from another bacterium in a single transfer.

A. Mutation

B. Horizontal gene transfer

C. A rapid rate of mitosis

2. During spontaneous induction in the lysogenic life cycle, a small piece of donor bacterial DNA may sometimes be exchanged for a piece of the bacteriophage genome and eventually become inserted into the genome of a recipient bacterium. This best describes:

- A. generalized transduction
- B. specialized transduction
- C. conjugation
- D. transformation

3. A transfer of DNA from a living donor bacterium to a living recipient bacterium by cell-to-cell contact best describes :

A. generalized transduction

B. specialized transduction

C. conjugation

D. transformation

4. A DNA fragment from a dead, degraded bacterium enters a competent recipient bacterium and is exchanged for a piece of DNA of the recipient. This best describes:

- A. generalized transduction
- B. specialized transduction
- C. conjugation
- D. transformation

5. \_\_\_\_\_ enable a rather promiscuous transfer of DNA not only to like species, but also to unrelated species.

A. Transformation

B. Transduction

C. Conjugative transposons

D. Conjugative plasmids

E. C and D

F. All of the above

6. Genes that enable a bacterium to form a mating pair with another bacterium are called:

A. *oriT* genes

B. *tra* genes

C. *F+* genes