

Chapter 6 Identifying a Potential Biotechnology Product

1. Give examples of biotechnology products derived from plant and animal sources and discuss the challenges of extracting compounds from plants as well as the strategies for overcoming them.
2. Identify the steps in a Comprehensive Product Development Plan and use it to determine whether a potential biotechnology product is worth pursuing.
3. Explain how scientists test the effectiveness of antibiotics and antimicrobials. Discuss the significance of antibiotic resistance.
4. Describe the typical recombinant DNA protein product pipeline. How long does it take to develop, test, and market a typical rDNA protein product?
5. A researcher wants to insert a gene into strawberry cells to prevent strawberries from freezing. Propose how that could be done using protoplast technology.

6. Propose a method for testing the effectiveness of an antiseptic, such as rubbing alcohol, on inhibiting *E. coli* growth.

7. If a cell extract is thought to contain a specific protein, how might a technician check to see if the protein is present?

8. Biotechnology products must be formulated before they can be marketed. Name two formulations for a pharmaceutical product other than tablet form.

9. What does GMP stands for and what does it cover?

10. Imagine that you work in a biotechnology lab. Select a product from the approved list provided by your instructor and gather data to complete a CPDP review. Construct a poster that addresses all of the criteria of the CPDP.

