A:

Programming Languages:

- Categorized as high-level or low-level languages
- Python is a high-level language with advantages like:

    * Easier to program

    * Less time to write code

    * More readable

    * More likely to be correct

    * Portable Python Programming Modes:

        - Immediate Mode: Quick, one-line commands

        - Script Mode: Preferred for longer programs

    * Allows saving and reusing code

    * Easier error tracking First Program (Hello World):

        - Demonstrates basic Python syntax

        - Uses print() function

        - Can include comments using # symbol

Summary: Programming is fundamentally about problem-solving, with Python being an accessible language for beginners.

B:

Key Concepts:

1. Programs as Instructions

    - Sequential steps

    - Order matters critically

    - Example: Tooth brushing process

2. Debugging Types

    - Syntax Errors: Language structure mistakes

    - Runtime Errors: Unexpected execution issues

    - Semantic Errors: Logical result problems

3. Programming Language Basics

    - Input methods

    - Output methods (print)

- Mathematical operations

- Conditionals

- Repetition mechanisms

4. Formal Language Characteristics

- Strict rules

- Precise tokens

- No ambiguity

- Literal interpretation

5. Debugging Strategies

- Comment out code sections

- Test small code increments

- Careful, systematic review

Pro Tips:

- Start small when coding

- Run code frequently

- Pay attention to syntax details

- Understand each line's purpose

Common Pitfalls:

- Incorrect capitalization

- Misplaced punctuation

- Logical calculation errors

- Token order mistakes