

Exercise Questions: Introduction to Computer Languages

1. Multiple Choice Questions (MCQs)

1. Which of the following best defines a language in general? (a) A random set of sounds (b) A set of instructions used for communication (c) A collection of numbers (d) Only English grammar
2. Why is communication with computers different from human communication? (a) Computers understand emotions (b) Computers require instructions in machine-readable format (c) Computers understand all spoken languages (d) Computers communicate using symbols only
3. Which of the following is considered a high-level programming language? (a) Binary code (b) C++ (c) Morse code (d) Assembly code
4. What is the role of a compiler in programming? (a) It converts machine code into English (b) It converts English-like instructions into machine-readable binary (c) It checks grammar of natural language (d) It stores user data

2. Short Answer Questions

5. Explain the similarity between human language rules and computer language rules.
6. Why are computer languages necessary for interacting with electronic devices?
7. What is source code, and why can't computers execute it directly?
8. Give an example of a simple task where a computer performs better than humans using a program.

3. Scenario-Based / Application Questions

9. Imagine you need to perform a factorial calculation for the number 120. Explain why using a computer program is more efficient than manual calculation.
10. You are designing an ATM machine interface. Describe how programming languages help create an interface that allows end users to perform transactions without knowing programming.
11. If a programmer writes a program in C++, explain the sequence of steps from writing the code to the computer executing it.
12. Consider a scenario where an end user tries to withdraw money from an ATM, but the transaction fails. Who handles the issue, and how does programming ensure smooth interaction?

4. Critical Thinking / Discussion Questions

13. Why do you think learning one programming language well is similar to becoming fluent in a spoken language?

14. How do interfaces simplify complex computer operations for users? Give examples from daily life.

15. Discuss the importance of translating human-readable code into machine-readable code. What could happen if this step didn't exist?