**Module 1. Computers and Programs**

**TRUE/FALSE**

1. Computers are capable of performing a wide range of tasks due to their programmable nature.

Answer: T

1. A program is a sequence of instructions that a computer can execute.

Answer: T

1. The hardware of a computer is more important than the software it runs.

Answer: F

1. Programming is a skill that can only be learned by computer science majors.

Answer: F

1. A single computer program can be designed to perform multiple tasks.

Answer: T

1. All computers, regardless of their form factor, share the same fundamental capabilities.

Answer: T

1. The primary purpose of a computer's CPU is to execute instructions from programs.

Answer: T

1. Python is a low-level programming language.

Answer: F

1. Compilers translate high-level programming languages into machine code.

Answer: T

1. Interpreters convert entire programs into machine language at once.

Answer: F

1. Algorithms are specific to only one type of problem and cannot be adapted.

Answer: F

1. The Python programming language was named after a species of snake.

Answer: F

1. High-level programming languages are designed to be easy for humans to read and write.

Answer: T

1. Natural languages are well-suited for defining strict logical operations required by algorithms.

Answer: F

1. The Python interpreter allows for interactive development and immediate testing of code.

Answer: T

1. Visual Studio Code is an example of an integrated development environment (IDE) used for programming.

Answer: T

1. The syntax of a programming language refers to the rules for structuring statements in that language.

Answer: T

1. Variables in Python must be declared with a specific data type before they can be used.

Answer: F

1. The process of debugging involves finding and fixing errors in a program.

Answer: T

1. Python's portability means that the same program can run on different types of computers with the appropriate interpreter.

Answer: T

**MULTIPLE CHOICE**

1. What is a computer primarily used for?

a. Performing specific tasks only

b. Processing and manipulating data according to instructions

c. Storing large amounts of data

d. Displaying visual information only

Answer: B

1. What makes a computer versatile in performing different tasks?

a. Its size and shape

b. Its ability to be programmed

c. The number of buttons it has

d. Its color and design

Answer: B

1. What is a program?

a. A physical component of a computer

b. A sequence of instructions that a computer follows to perform a task

c. A type of computer hardware

d. A brand of computers

Answer: B

1. Which of the following is a high-level programming language?

a. Machine language

b. Assembly language

c. Python

d. Binary code

Answer: C

1. What is the role of a compiler in programming?

To run the program line by line b.

To translate high-level code into machine code

c. To edit the source code

d. To store the program in memory

Answer: B

1. Which of the following statements about programming languages is true?

a. They are all equally difficult to learn.

b. They allow programmers to write instructions that computers can execute.

c. They are only used by professional software developers.

d. They do not require any special syntax or rules.

Answer: B

1. What is an algorithm?

a. A type of computer hardware

b. A step-by-step procedure for solving a problem

c. A programming language

d. A storage device

Answer: B

1. What distinguishes a computer from other information processing devices?

a. Its ability to store large amounts of data

b. Its capability to run changeable programs

c. Its physical size

d. Its user interface

Answer: B

1. Which of the following best describes Python?

a. A low-level programming language

b. A high-level programming language designed for readability and simplicity

c. A type of computer hardware

d. A type of operating system

Answer: B

1. What does the term "portable" mean in the context of high-level programming languages?

a. The ability to move the computer easily

b. The ability to use the same program on different types of computers

c. The ability to connect to other devices

d. The ability to store data

Answer: B

1. What is one advantage of using an interpreted language like Python?

a. Faster execution compared to compiled languages

b. Immediate execution and testing of code during development

c. Better performance in all scenarios

d. No need for a development environment

Answer: B

1. What is the purpose of the Python Shell?

a. To compile Python programs

b. To provide an interactive environment for running Python commands

c. To store Python programs

d. To connect Python to other programming languages

Answer: B

1. Which tool is commonly used to write and run Python code?

a. Microsoft Word

b. Visual Studio Code

c. Adobe Photoshop

d. Google Chrome

Answer: B