Starting Out With Python 6th edition Gaddis Solutions Manual

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Chapter 1 Solutions

Checkpoint 1.1-1
A program is a(n) _____ that a computer follows to perform a task.
a. user interface
b. operating system
c. set of instructions
d. programming language
Answer: c

Checkpoint 1.2-1
What term refers to the physical devices, or components, of which a computer is made?
a. hardware
b. software
c. input
d. output
Answer: a

Checkpoint 1.2-2
What part of the computer actually runs programs?
a. main memory
b. the CPU
c. secondary memory
d. I/O devices
Answer : b

Checkpoint 1.2-3
What part of the computer serves as a work area to store a program and its data while the program is running?
a. I/O devices
b. secondary memory
c. main memory or RAM
d. the CPU
Answer : c

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Checkpoint 1.2-4
What part of the computer holds data for long periods of time, even when there is no power to the computer?
a. I/O devices
b. main memory
c. the CPU
d. secondary storage or hard disk
Answer : d

Checkpoint 1.2-5
What part of the computer collects data from people and from other devices?
a. input device
b. output device
c. CPU
d. RAM
Answer: a

Checkpoint 1.2-6
What part of the computer formats and presents data for people or other devices?
a. input device
b. output device
c. CPU
d. RAM
Answer: b

Checkpoint 1.2-7
What fundamental set of programs control the internal operations of the computer's hardware?
a. file system
b. backup program
c. application interface
d. operating system
Answer: d

Checkpoint 1.2-8
What do you call a program that performs a specialized task, such as a virus scanner, a file compression program, or a data backup program?
a. utility program
b. application software

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c. operating system
d. central processor
Answer: a

Checkpoint 1.2-9
Word processing programs, spreadsheet programs, email programs, web browsers, and game programs belong to what category of software?
a. utility program
b. application software
c. operating system
d. central processor
Answer: b

Quiz 1.2 (Scored)

Question 1
When a program runs on a computer, the part of the computer that carries out the instructions is called the ___
a. RAM
b. GPU
c. ROM
d. CPU
Answer: d

Question 2
When a program runs on a computer, it is stored in _____
a. ROM
b. RAM
c. GPU
d. CPU
Answer: b

Checkpoint 1.3-1
A tiny "switch" that can be set to either on or off is called a _____.
a. bit
b. byte
c. nibble
d. frame
Answer: a

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Checkpoint 1.3-2
ASCII is an encoding scheme that uses a set of _____ to store characters in a computer's memory.
a. 128 bits
b. 128 numeric codes
c. 1024 numeric codes
d. 256 unique strings
Answer: b

Checkpoint 1.3-3
What encoding scheme is extensive enough to represent the characters of many of the languages in the world?
a. Universal
b. Hexadecimal
c. ASCII
d. Unicode
Answer: d

Quiz 1.3 (Scored)

Question 1
A bit is
a. an alternative term for byte.
b. enough memory to store a lowercase character.
c. an electronic device used in computers.
d. a binary digit, like 0 or 1.
Answer: d

Question 2
A byte is made up of _____ bits.
2
8
16
32
ANSWER: 8

Question 3 (replaces the current question)

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What are ASCII and Unicode?
a) They were the first general purpose computers.
b) They are popular microprocessors.
c) They are encoding schemes that allow characters to be stored as numeric codes.
d) They are techniques for storing negative numbers in memory.
Answer: c

Checkpoint 1.4-1
A CPU understands instructions that are written only in _____.
a. high-level code
b. Python
c. hex language
d. machine language
Answer: d

Checkpoint 1.4-2
A program has to be copied into what type of memory each time the CPU executes it?
a. RAM
b. ROM
c. BUS
d. DISC
Answer: a

Checkpoint 1.4-3
When a CPU executes the instructions in a program, it is engaged in what process?
a. code switching
b. fetch-decode-execute cycle
c. in-out processing
d. device communication
Answer: b

Checkpoint 1.4-4
What format uses short words that are known as mnemonics?
a. hexadecimal format
b. binary format
c. assembly language
d. high-level language

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Answer: c

Checkpoint 1.4-5
A high-level programming language allows you to create powerful and complex programs without knowing how the CPU works.
a. True
b. False
Answer: True

Checkpoint 1.4-6
Each language has a set of rules that must be strictly followed when writing a program. What is this set of rules called?
a. grammar
b. protocols
c. semantics
d. syntax
Answer: d

Checkpoint 1.4-7
What type of program translates a high-level language program into a separate machine language program?
a. compiler
b. router
c. analyzer
d. processor
Answer: a

Checkpoint 1.4-8
A mistake that is usually caused by a misspelled key word, a missing punctuation character, or the incorrect use of an operator is called a logical error.
a. True
b. False
Answer: False

Quiz 1.4 (Socred)

Question 1

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A(n) _____ is a program that both translates and executes the instructions in a program.
a. compiler
b. linker
c. editor
d. interpreter
Answer: d

Question 2
The code that a programmer writes is called _____ code.
a. exe
b. source
c. machine
d. object
Answer: b

Question 3
Words that have a special meaning in a programming language are called _____.
a. format words
b. special words
c. programming words
d. key words
Answer: d

Live Code Example 1.1
Type the following statement in the interface shown below.
```
print('Python programming is fun!')
```

Initial Code:

Answer:
```
print('Python programming is fun!')
```

Live Code Example 1.2
Type the following statement in the interface shown below.
```
print('To be or not to be')
```

Initial Code:

Answer:
```
print('To be or not to be')
```

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Checkpoint 1.5-1
The program that can read Python programming statements and execute them is called a Python _____.
a. analyzer
b. router
c. interpreter
d. processor
Answer: c

Checkpoint 1.5-2
When programming in _____ mode, the interpreter waits for you to type a Python statement on the keyboard and then executes it.
a. user
b. batch
c. interactive
d. script
Answer: c

Checkpoint 1.5-3
When programming in _____ mode, the interpreter reads the contents of a file that contains Python statements and executes each statement as it reads it.
a. user
b. batch
c. interactive
d. script
Answer: d

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