

Student name: _____

TRUE/FALSE - Write 'T' if the statement is true and 'F' if the statement is false.

The parts of an information system are people, procedures, software, hardware, data, and the Internet.

true

false

The purpose of software is to convert data into information.

true

false

Software is another name for a program or programs.

true

false

To be an effective and efficient computer user, you need to recognize the role of information technology in your personal and professional life.

true

false

Application software is "background" software which helps the computer manage its own internal resources.

true

false

System software is a collection of programs.

true

false

Antivirus software is a Windows utility that is unnecessary as long as you are careful browsing the Internet.

true

false

System software might be described as end-user software.

true

false

A word processor is an example of system software.

true

false

Another name for a midrange computer is “server.”

true

false

Insurance companies are most likely to use personal computers to process information about millions of policyholders.

true

false

Smartphones are a type of personal computer that do not need input, output, processing, or storage.

true

false

Two important components of the system unit are the keyboard and the hard disk.

true

false

A system unit consists of the keyboard and the monitor.

true

false

RAM will retain data when the computer is turned off.

true

false

The most common input devices are the mouse and the keyboard.

true

false

Secondary storage will retain data when the computer is turned off.

true

false

Solid-state storage uses rigid metallic platters to store data using the magnetic charges on the disk's surface.

true

false

Four common types of files are document files, worksheet files, database files, and presentation files.

true

false

Highly structured and organized data is stored in database files.

true

false

MULTIPLE CHOICE - Choose the one alternative that best completes the statement or answers the question.

Which part of an information system consists of the rules or guidelines for people to follow?

People

Procedures

Internet

Data

The equipment that processes data in order to create information is called the _____.

typology

compiler

hardware

software

In most cases, the word "software" is interchangeable with the word _____.

procedure

application

program

computer

What are the two major software types?

System analysis software and data warehousing software

Operating system software and utilities software

System software and application software

Database management software and application software

Which of the following is a collection of programs rather than a single program?

Procedures

System software

Hardware

Microsoft Access

"Background" software that helps the computer manage its own internal resources is called _____.

shareware

application software

desktop

system software

Identify the program that coordinates computer resources, provides an interface between users and the computer, and runs applications.

System software

Operating system

Application software

Device driver

Antivirus programs protect your computer system from viruses or malicious programs. This is an example of which type of software?

Browser software

Operating system

Application software

Utilities

System software includes all the following except:

Stand-alone operating systems

Real-time operating systems

Utilities

Browsers

Which of the following computers is also referred to as a server and is used to support end users for things such as retrieving data from a database or providing access to application software?

Midrange

Mainframe

Supercomputer

Microcomputer

Desktop, laptop, and tablet computers, and mobile devices are classified as _____.

mainframe computers

supercomputers

midrange computers

personal computers

The most widely used personal computers are _____.

laptops

smartphones

notebooks and laptops

tablets

A microcomputer that is smaller, lighter, and less powerful than a notebook, and which has a touch-sensitive screen, is called a _____.

laptop

desktop

subnotebook

tablet

This computer component holds the program and data that is currently being processed.

RAM

ROM

Bus

Ports

Which of the following will not retain data after the computer is turned off?

DVD

RAM

ROM

Hard drive

Identify the four basic categories of hardware in a personal computer system.

Hard disk, input/output, secondary storage, and display devices

System unit, input/output, secondary storage, and primary storage

System unit, input/output, secondary storage, and communication

Hard disk, modem, RAM, and microprocessor

This hardware houses most of the electronic components that make up a computer system.

System unit

Input/output devices

Secondary storage

Communication

Which of the following are two important components of the system unit?

Microprocessor and memory

Keyboard and mouse

Microphone and speakers

Monitor and printer

Which one of the following is not considered a form of secondary storage?

Solid-state storage

Optical discs

RAM

Hard disk

_____ are the most important part of any information system.

Software applications

Programs

Hardware applications

People

The type of media that uses laser technology to store data and programs is _____.

hard disk

flash

solid state

optical disc

Which of the following is not an example of a document file created by a word processor?

Spreadsheet

Memo

Letter

Term paper

A financial budget would typically be created in what type of data file?

Database

Worksheet

Presentation

Document

Employee records, including names, social security numbers, and related information, would typically be stored in what type of data file?

Document

Presentation

Database

Worksheet

The Internet is the largest _____ in the world.

network

system unit

database program

operating system

Which technology allows users to shift their desktop computing activities to computers on the Internet?

Distributed databases

Cloud computing

Personal computers

Solid-state storage

_____ are all about making people (end users) more productive.

Personal computers

Supercomputers

Mainframe computers

Midrange computers

In an information system, the rules or guidelines for people to follow are called _____.

data processing

procedures

compiling

database management

_____ is the component of the information system that is described as the equipment that processes data to create information.

System software

Compiler

Hardware

Programming

The component of the information system that is described as raw, unprocessed facts, including text, numbers, images, and sounds, is called _____.

software

the Internet

cloud computing

data

_____ software is a collection of programs that helps the computer manage its own resources and enables application software to interact with computer hardware.

System

Database management

Application

Operating

The _____ is the continuing development of the Internet that allows everyday objects embedded with electronic devices to send and receive data over the Internet.

World Wide Web

Internet of Things

Cloud

solid state of things

Application software can be categorized as either general-purpose, specialized, or _____ apps.

midrange

operating

mobile

utility

Software is another name for _____.

the Cloud

the equipment that processes data

the Internet

programs

_____ computers are not nearly as powerful as supercomputers, but are capable of great processing speeds and data storage and occupy specially wired, air-conditioned rooms.

Mainframe

Laptop

Micro

Midrange

The five types of personal computers are: desktops, laptops, tablets, smartphones, and _____.

microcomputers

wearables

macrocomputers

midranges

Smartphones are the most widely used _____ computers and are designed to fit into the palm of one hand.

laptop

macro

personal

midrange

_____ are cell phones with wireless connections to the Internet.

Midrange devices

Superphones

Wearables

Smartphones

_____ storage devices do not lose data or programs after the electrical power is turned off.

Secondary

Input/output

Primary

Communication

_____ use(s) rigid metallic platters to store programs and very large data files.

RAM

Hard disks

ROM

Solid-state storage

_____ are secondary storage devices that use laser technology.

Hard disks

RAM

Optical disks

ROM

A(n) _____ file might contain audience handouts and speaker notes in addition to electronic slides.

OneNote

worksheet

database

presentation

Increased use of mobile or wireless communication devices and cloud computing has been termed “the _____ revolution.”

wireless

network

Internet of Things

connectivity

A(n) _____ is a communications system connecting two or more computers.

systems unit

network

cloud

operating system

The _____ provides a multimedia interface to the numerous resources available on the Internet.

operating system

application software

web

Internet of Things

_____ computing uses the Internet and the web to shift many computer activities from a user's computer to computers on the Internet.

Midrange

Super

Wireless

Cloud

ESSAY. Write your answer in the space provided or on a separate sheet of paper.

Describe all the parts of an information system.

Where would it be most relevant to use the term "data" and the term "information"? Give an example of each.

What is an operating system? Give two examples.

What is application software? Describe the two categories of application software.

Differentiate between a supercomputer and a mainframe computer.

Differentiate between midrange and personal computers.

Describe the different types of personal computers and provide relevant examples of each.

In reference to personal computer hardware, explain the system unit.

Describe secondary storage. Compare and contrast hard disks and solid-state storage.

Describe the four common types of files.

Explain why the terms *cell phone* and *smartphone* used to refer to different things and now are, generally, used interchangeably.

Answer Key

Test name: ch1 Computing Essentials 2025 e29

TRUE

TRUE

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Essay

An information system typically consists of people, procedures, software, hardware, data, and the Internet. Information systems are used by people in order to increase productivity. Procedures are rules or guidelines for people to follow when using software, hardware, and data. Software is a program that contains the step-by-step instructions that tell the computer how to do its work. Hardware consists of the physical equipment that processes the data to create information. Data consists of raw unprocessed facts, including text, numbers, images, and sounds. Almost all of today's information systems provide a way to connect to other people and computers, typically using the Internet. This connectivity greatly expands the capability and usefulness of their information systems.

Essay

Data are raw, unprocessed facts, including text, numbers, images, and sounds. An example might be a listing of all customer purchases at a bookstore over the last year. Processed data yields information. From the previous example, you could derive information such as the addresses of customers who bought more than \$500 worth of books or the year's top ten horror novels.

Essay

Operating systems are programs that coordinate computer resources, provide an interface between users and the computer, and run applications. Microsoft's Windows 10 and Apple's macOS are two of the best-known operating systems for today's microcomputer users.

Essay

Application software might be described as end user software. Three types of application software are general-purpose, specialized, and mobile apps. General-purpose applications are widely used in a large number of careers. Some of the best-known general-purpose application programs are Microsoft's Word, Excel, Access, and PowerPoint. Specialized applications include thousands of other programs that are more narrowly focused on specific disciplines and occupations. Two of the best known are graphics and web authoring programs. Mobile apps (or mobile applications or just apps) are small programs designed for mobile devices such as smartphones, tablets, and other mobile devices. There are over five millions apps. The most popular mobile apps are for social networking, playing games, and downloading music and videos.

Essay

Supercomputers are the most powerful type of computer. These machines are special high-capacity computers used by very large organizations. Although mainframe computers are not as powerful as supercomputers, mainframe computers are capable of great processing speeds and data storage. For example, insurance companies use mainframes to process information about millions of policyholders.

Essay

Midrange computers, also referred to as servers, are computers with processing capabilities less powerful than a mainframe computer yet more powerful than a microcomputer. Originally used by medium-sized companies or departments of large companies to support their processing needs, today midrange computers are most widely used to support or serve end users for specific needs such as retrieving data from a database or supplying access to application software. Personal computers are the least powerful, yet the most widely used, type of computer. There are five types of personal computers: desktops, laptops, tablets, smartphones, and wearables.

Essay

There are five types of personal computers: desktop computers, laptops, tablets, smartphones, and wearables. Desktop computers are small enough to fit on top of or alongside a desk yet are too big to carry around. Laptop computers, also called notebook computers, are portable, lightweight, and fit into most briefcases. Tablets are smaller, lighter, and generally less powerful than laptops. Like a laptop, tablets have a flat screen but typically do not have a standard keyboard. Instead, tablets typically use a virtual keyboard that appears on the screen and is touch-sensitive. Smartphones are the most widely used personal computers. Smartphones are cell phones with wireless connections to the Internet and processing capabilities. Other mobile computers include wearable devices like Apple's watch.

Essay

The system unit is a container that houses most of the electronic components that make up a computer system. Two important components of the system unit are the microprocessor and memory. The microprocessor controls and manipulates data to produce information. Memory is a holding area for data, instructions, and information. One type of memory, random-access memory (RAM), holds the program and data that is currently being processed. This type of memory is sometimes referred to as temporary storage because its contents will typically be lost if the electrical power to the computer is disrupted.

Essay

Unlike memory, secondary storage holds data and programs even after electrical power to the computer system has been turned off. Hard disks are typically used to store programs and very large data files. Using rigid metallic platters and read/write heads that move across the platters, hard disks store and retrieve data using magnetic charges. In contrast, solid-state storage does not have any moving parts. It is more reliable and requires less power than hard disks. Solid-state storage saves data electronically in a manner similar to RAM except that its contents will not be lost if electrical power is disrupted.

Essay

Document files are created by word processors. They include such things as memos, term papers, and letters. Worksheet files are created by electronic spreadsheets and are typically used to analyze things like budgets and to predict sales. Database files are created by database management programs to contain highly structured and organized data. Presentation files are created by presentation graphics programs to save presentation materials, including audience handouts, speaker notes, and electronic slides.

Essay

At one time, cell phones had very limited power and were used almost exclusively for making telephone calls. Now, almost all cell phones are powerful smartphones capable of connecting to the Internet and running any number of apps. Today, over 99% of Americans under the age of 30 own a cell phone, and over 96% of those cell phones are smartphones. As a result, the two terms are becoming interchangeable.