

- T F** 661. Data is the least common type of input.
- T F** 662. User responses are instructions that direct the computer to perform the necessary operations to process data into information.
- T F** 663. The alphabetic keys on a keyboard are arranged like those on a typewriter.
- T F** 664. The keys that move the insertion point are called toggle keys.
- T F** 665. When an arrow control key is pressed, the insertion point moves one space in the opposite direction of the arrow.
- T F** 666. In addition to arrow keys and the HOME key, the numeric keypad also can be used to move the cursor.
- T F** 667. The CAPS LOCK key is an example of a toggle key.
- T F** 668. Status lights in the upper-right corner of the keyboard indicate if the function keys, alphabetic keys, and arrow keys are turned on.
- T F** 669. The ESC key performs the same functions in all software packages.
- T F** 670. The mouse is a small palm-sized input device that is moved across a flat surface to control the movement of the pointer and screen.
- T F** 671. When the mouse is moved left on the surface of a table or desk, the pointer moves right on the screen.
- T F** 672. The function of the mouse buttons can be changed to accommodate right- and left-handed people.
- T F** 673. One advantage to using a mouse unit is that the ball mechanism does not require any cleaning.
- T F** 674. To move the pointer using a trackball, the entire device must be moved.
- T F** 675. Some touchpads have buttons that can be clicked like a mouse.
- T F** 676. A pointing stick, sometimes called a trackpoint or an isometric pointing device, requires the same cleaning as mouse units and trackballs do.
- T F** 677. Pen input devices have become increasingly unpopular in recent years.
- T F** 678. Only a few of the personal digital assistant (PDA) class of personal computers use a pen.
- T F** 679. Pen computers use special hardware and software to interpret the movement of

the pen.

- T F** 680. Graphic recognition software used on pen input devices can improve drawings by cleaning up uneven lines.
- T F** 681. Gestures are less efficient than using a mouse or keyboard because they do not identify where a change should be made or indicate the type of change to be made.
- T F** 682. One of the larger markets for pen input devices is mobile workers, who spend most of their time away from their desks or offices.
- T F** 683. Touch screens are used to enter large amounts of data.
- T F** 684. Touch screens have been installed successfully in kiosks to provide information in hotels, airports, and other public locations.
- T F** 685. A light pen can be used to select processing options or draw on the screen.
- T F** 686. A digitizer uses relative referencing.
- T F** 687. Source data automation sometimes is called source data collection.
- T F** 688. Source data automation procedures and equipment are designed to make the input process more efficient by necessitating the manual entry of data.
- T F** 689. An image scanner converts the text or image on an original document into digital information.
- T F** 690. Image processing systems are like electronic filing cabinets that allow users to access rapidly and review exact reproductions of the original documents.
- T F** 691. The most common optical code is the magnetic ink character recognition (MICR) code.
- T F** 692. A bar code usually is printed either on the product package or attached to the product with a label or tag.
- T F** 693. Optical mark recognition (OMR) devices are scanners that read typewritten characters from ordinary documents.
- T F** 694. The standard OCR typeface characters only can be read by machine.
- T F** 695. Modern optical character recognition (OCR) software has a very low success rate.
- T F** 696. Blank (unused) checks already have the bank code, account number, and check

number printed in OCR characters across the bottom of the check.

- T F** 697. Data collection equipment must be rugged and easy to use because often it is operated by persons whose primary task is not entering data.
- T F** 698. Terminals, sometimes called display terminals, consist of a pointing device and a printer.
- T F** 699. Because of their built-in capabilities, dumb terminals can perform limited processing tasks when they are not communicating directly with the central computer.
- T F** 700. Special-purpose terminals contain features uniquely designed for use in a particular industry.
- T F** 701. Point-of-sale terminals serve as input to minicomputers located at the place of business.
- T F** 702. Point-of-sale terminals require a great deal of technical knowledge.
- T F** 703. To capture sound and image data, special input devices are required.
- T F** 704. Sounds usually are recorded with a microphone connected to a sound card or by directly connecting a sound device, such as an electronic music keyboard, to the sound card.
- T F** 705. Many telephone directory assistance services now use voice input.
- T F** 706. In voice input systems, a voice, consisting of sound waves, is converted into digital form by digital signal processing (DSP) circuits.
- T F** 707. In larger vocabulary voice input systems containing up to 50,000 words, developers include multiple patterns, called voice templates, for each word.
- T F** 708. Natural language voice recognition systems use low-power computers and simple software.
- T F** 709. Digital cameras use chemical-based film.
- T F** 710. Many companies use digital cameras to record images of their products for online catalogs.
- T F** 711. Video segments require very little storage space, which is why video segments, or *clips*, in personal computer applications often last several minutes.
- T F** 712. The type of output generated from the computer depends on the needs of the

user and the hardware and software that are used.

- T F** 713. Narrative reports may contain some text, but primarily are graphic or number-based reports.
- T F** 714. Periodic reports are created whenever they are needed for information that is not required on a scheduled basis.
- T F** 715. In recent years, computer graphics have been limited to simple charting capabilities.
- T F** 716. Most personal computers come with a small speaker (approximately two inches) that usually is located behind an opening on the front or side of the system unit case.
- T F** 717. Voice synthesis can transform words stored in memory into speech.
- T F** 718. Because standard televisions are designed to handle a computer's digital signals, video output does not have to be converted to an analog signal to be displayed by a television.
- T F** 719. A monitor differs from a terminal in that a terminal also has a keyboard.
- T F** 720. The term screen is used to refer to both the surface of any display device and to any type of display device.
- T F** 721. The amount of colors a monitor can display at one time depends on the amount of memory installed on the video adapter board.
- T F** 722. Using a technique known as gray scaling, some color monitors can display good quality graphic images.
- T F** 723. Gray scaling involves converting an image into different shades of gray like a black and white photograph.
- T F** 724. Flat panel displays most often are used in portable computers.
- T F** 725. LCD technology commonly is used in digital watches, clocks, and calculators.
- T F** 726. Passive matrix LCD displays use a greater number of transistors than active matrix displays.
- T F** 727. Gas plasma flat panel screens offer poorer resolution than LCD screens but are less expensive.
- T F** 728. Images are displayed on a monitor using lines of varying lengths.

- T F** 729. The number of pixels a monitor can display is expressed as the number of pixels horizontally and lines vertically on the screen, such as 640 (horizontal pixels) by 480 (vertical lines).
- T F** 730. VGA (video graphics array) devices can display a resolution of 640 x 480, and common SVGA (super video graphics array) resolutions are 800 x 600 and 1,024 x 768.
- T F** 731. Each video graphics standard has an indefinite frequency or rate at which video signals are sent to the monitor.
- T F** 732. Multiscanning or multisync monitors are designed to work at a particular frequency and thus can work only with one standard and video adapter.
- T F** 733. Most monitors used with personal computers and terminals use liquid crystal display (LCD) technology.
- T F** 734. By varying the intensity of the electron beam striking the phosphors on the screen, and making some colored dots glow more than others, many colors can be generated.
- T F** 735. Printing requirements vary greatly among computer users.
- T F** 736. Generally, printers can be classified into two groups, active matrix or passive matrix, based on how they transfer characters to the paper.
- T F** 737. Most impact printers use single-sheet paper.
- T F** 738. The advantage of using continuous form paper is that different types of paper can be changed quickly.
- T F** 739. The print head of a dot matrix printer consists of a series of small tubes containing wire pins.
- T F** 740. Most dot matrix printers used with personal computers have fixed print mechanisms at each print position and can print an entire line at one time.
- T F** 741. Dot matrix printers can contain a varying number of pins, depending on the manufacturer and printer model.
- T F** 742. Depending on the printer model, the speed of impact printers with movable print heads varies between 50 and 70 cps.
- T F** 743. Dot matrix printers are the most expensive printers but frequently are used because they offer a high-quality output.

- T F** 744. Dot matrix printers range in cost from less than \$200 for small desktop units to more than \$10,000 for heavy-use business models.
- T F** 745. Band printers are used for high-volume output on large computer systems.
- T F** 746. Ink-jet printers, small laser printers, and thermal printers rarely are used on personal computers and small minicomputers.
- T F** 747. Lower quality paper is recommended for better looking color documents with ink-jet printers because heavier weight premium paper can be too hard and cause the ink to bleed.
- T F** 748. Ink-jet printers print text at rates of from two to eight pages per minute.
- T F** 749. Color laser printers are one of the most widely used types of printers.
- T F** 750. Laser printer speed is measured in pages per minute (ppm).
- T F** 751. Transparencies cannot be printed on laser printers.
- T F** 752. Thermal printers produce the best results when higher quality, smooth paper or plastic transparencies are used.
- T F** 753. Pen plotters create images on a sheet of paper by moving the paper under the tip of the pens.
- T F** 754. A flatbed plotter uses a rotating drum, or cylinder, over which a drawing is mounted.
- T F** 755. The speed of pen plotters is faster than with electrostatic plotting.
- T F** 756. After the computer output microfilm (COM) process reduces the size of characters, the information then is recorded on sheet film called microfiche.
- T F** 757. The cost to store a megabyte of information is more on microfilm than it is on disk.
- T F** 758. Some microfilm readers can perform automatic data lookup called computer-assisted retrieval (CAR) under the control of an attached computer.
- T F** 759. The cost of a multifunction device (MFD) often is more than the total of any two devices it is designed to replace.
- T F** 760. MFD print speeds are far slower than stand-alone printers.