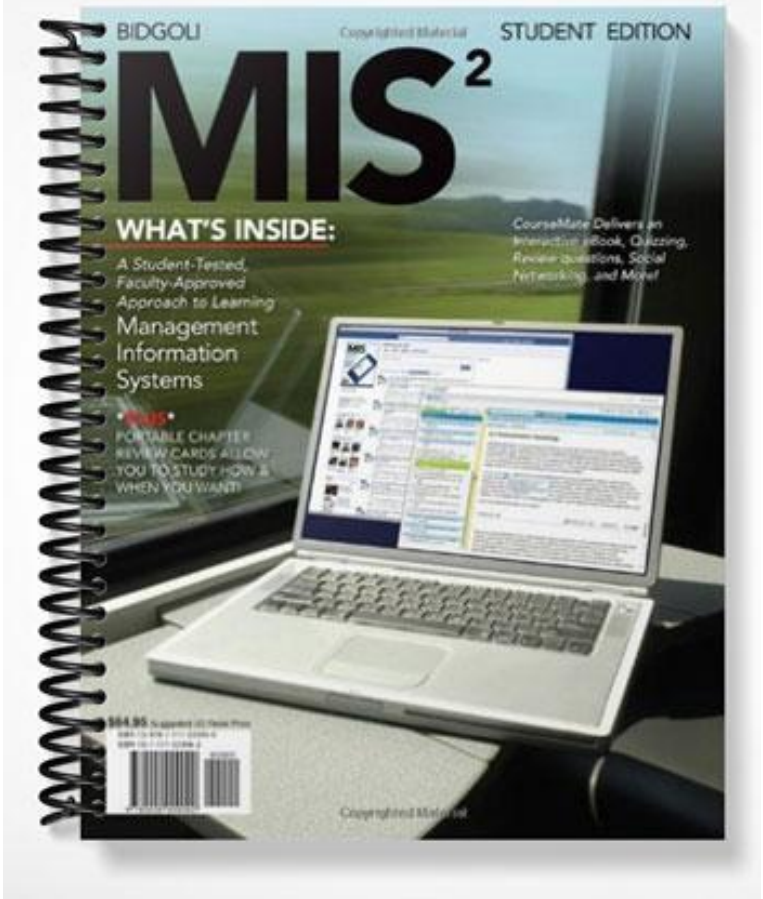
TEST BANK


BIDGOLI
STUDENT EDITION
MIS 2
WHAT'S INSIDE:
A Student-Tested, Faculty-Approved Approach to Learning
Management Information Systems

TRUE/FALSE

1. Computers have gone through drastic changes in a short time.

   ANS: T PTS: 1 REF: 21

2. Computers are excellent at correcting incorrect data that is sent to programs.

   ANS: F PTS: 1 REF: 22

3. Both the ALU and control unit are part of the BIOS.

   ANS: F PTS: 1 REF: 23

4. A bus may be internal or external.

   ANS: T PTS: 1 REF: 23

5. A computer with a 32-bit processor can perform calculations with larger numbers and be more efficient with smaller numbers.

   ANS: F PTS: 1 REF: 23

6. A serial port is a communication interface through which information is transferred one bit at a time.

   ANS: T PTS: 1 REF: 24

7. Fourth-generation computers operated on integrated circuits (ICs), which enabled computers to be even smaller, faster, more reliable, and more sophisticated.

   ANS: F PTS: 1 REF: 24

8. ENIAC is an example of a first-generation computer.

   ANS: T PTS: 1 REF: 24

9. Fourth-generation computers include parallel-processing.

   ANS: F PTS: 1 REF: 24

10. Unlike humans, computers don’t make mistakes.

    ANS: T PTS: 1 REF: 25

11. A petabyte is 2^{30} bytes.

    ANS: F PTS: 1 REF: 25

12. Computers and communication systems use data codes to represent and transfer data between computers and network systems.

ANS: T PTS: 1 REF: 26

13. The split keyboard has been developed for better ergonomics.

ANS: T PTS: 1 REF: 27

14. Light pens are considered to be an output device.

ANS: F PTS: 1 REF: 27

15. Trackballs are ideal for notebook computers because they occupy less space than a mouse.

ANS: T PTS: 1 REF: 27

16. Positioning with a trackball is sometimes less precise than with a mouse.

ANS: T PTS: 1 REF: 27

17. The United States Postal Service uses OMR to sort mail.

ANS: F PTS: 1 REF: 27

18. Inkjet printers produce characters by projecting electrically charged droplets of ink onto paper that create an image.

ANS: T PTS: 1 REF: 27

19. Main memory stores data and information and is usually nonvolatile.

ANS: F PTS: 1 REF: 28

20. Random access memory can be read from and written to.

ANS: T PTS: 1 REF: 28

21. A magnetic disk is a type of secondary memory.

ANS: T PTS: 1 REF: 29

22. A major drawback with a write once, read many (WORM) disc is that it is prone to malware attacks.

ANS: F PTS: 1 REF: 29

23. Hard disks come in a variety of sizes and can be internal or external.

ANS: T PTS: 1 REF: 29

24. Flash memory is used mostly in memory cards and USB flash drives.

ANS: T PTS: 1 REF: 30

25. A SAN is a dedicated high-speed network consisting of both hardware and software used to connect and manage shared storage devices such as disk arrays, tape libraries, and optical storage devices.

ANS: T PTS: 1 REF: 30

26. NAS is composed of arrays such that if one disk in the array fails, data is not lost.

ANS: F PTS: 1 REF: 30

27. NAS is popular for Web servers and e-mail servers because it lowers management costs and helps make these servers more fault tolerant.

ANS: T PTS: 1 REF: 31

28. With NAS, as the number of users increases, its performance increases.

ANS: F PTS: 1 REF: 31

29. A spreadsheet is a table of rows and columns, and spreadsheet software is capable of performing numerous tasks with the information in a spreadsheet.

ANS: T PTS: 1 REF: 33

30. Sometimes, 4GLs are called procedural languages.

ANS: F PTS: 1 REF: 35

MULTIPLE CHOICE

1. The portion of the computer responsible for adding numbers is the ____.
   a. ALU
   b. control unit
   c. logic unit
   d. bus

   ANS: A PTS: 1 REF: 23

2. A(n) ____ is the link between devices connected to the computer.
   a. ALU
   b. control unit
   c. logic unit
   d. bus

   ANS: D PTS: 1 REF: 23

3. A(n) ____ is a peripheral device for recording, storing, and retrieving information.
   a. bus
   b. disk drive
   c. ALU
   d. motherboard

   ANS: B PTS: 1 REF: 23

4. The BIOS is part of the ____.
   a. CPU
   b. ALU
   c. motherboard
   d. bus

   ANS: C PTS: 1 REF: 23

5. Transistors were the major technology for the ____ generation of hardware.
   a. first
   b. second
   c. third
   d. fourth

ANS: B PTS: 1 REF: 24

6. IBM System z10 is an example of a ____ generation computer.
   a. second
   b. third
   c. fourth
   d. fifth

   ANS: D PTS: 1 REF: 24

7. High-level languages represent the ____ generation of computer languages.
   a. first
   b. second
   c. third
   d. fourth

   ANS: C PTS: 1 REF: 25

8. Computer speed might be measured in ____ or 1/1,000,000,000,000 of a second.
   a. milliseconds
   b. microseconds
   c. nanoseconds
   d. picoseconds

   ANS: D PTS: 1 REF: 25

9. ____ means saving data in computer memory and retrieval is accessing data from memory.
   a. Encapsulation
   b. Replication
   c. Assembling
   d. Storage

   ANS: D PTS: 1 REF: 25

10. A ____ is the size of a character.
    a. nibble
    b. bit
    c. byte
    d. word

    ANS: C PTS: 1 REF: 25

11. In a(n) ____ file, each alphabetic, numeric, or special character is represented with a 7-bit binary number.
    a. EBCDIC
    b. Unicode
    c. ASCII
    d. extended ASCII

    ANS: C PTS: 1 REF: 26

12. ASCII defines up to ____ characters.
    a. 8
    b. 128
    c. 258
    d. 1024

    ANS: B PTS: 1 REF: 26

13. Input devices send data and information to a(n) ____.
    a. CPU case
    b. vacuum tube
    c. ALU
    d. computer

    ANS: D PTS: 1 REF: 26

14. The most widely used input device is the ____.
    a. keyboard
    b. mouse
    c. touch screen
    d. MICR

    ANS: A PTS: 1 REF: 26

15. A(n) ____ is an example of a soft copy output.
    a. liquid crystal display
    b. inkjet printer
    c. laser printer
    d. voice synthesis device

    ANS: A PTS: 1 REF: 27

16. ____ memory, which is nonvolatile, holds data when the computer is off or during the course of a program's operation.
    a. Raw
    b. Open
    c. Secondary
    d. Replicated

    ANS: C PTS: 1 REF: 28

17. The Clipboard's contents are stored on ____.
    a. ROM
    b. RAM
    c. PROM
    d. EPROM

    ANS: B PTS: 1 REF: 28

18. A(n) ____ is a type of memory that must be accessed sequentially.
    a. magnetic disk
    b. magnetic tape
    c. optical disk
    d. RAID

    ANS: B PTS: 1 REF: 29

19. Optical discs use ____ beams to access and store data.
    a. magnetic
    b. laser
    c. optical
    d. elliptical

    ANS: B PTS: 1 REF: 29

20. CD-ROMs and DVDs are examples of ____ disks.
    a. magnetic
    b. tape
    c. optical
    d. flash

    ANS: C PTS: 1 REF: 29

21. Which of the following has the highest storage capacity?
    a. memory stick
    b. hard disk
    c. CD-ROM
    d. DVD-ROM

    ANS: B PTS: 1 REF: 30

22. The term RAID stands for ____.
    a. random access for independent disks
    b. redundant access for independent devices
    c. random array of independent drives
    d. redundant array of independent disks

    ANS: D PTS: 1 REF: 30

23. Typically, ____ are used only in large enterprises because of their cost and installation complexity.
    a. SANs
    b. NASs
    c. CD-ROMs
    d. hard disks

    ANS: A PTS: 1 REF: 30

24. A ____ is a computer and all software for managing network resources and offering services to a network.
    a. SAN
    b. server
    c. NAS
    d. RAID

    ANS: B PTS: 1 REF: 32

25. ____ servers are configured to store and manage vast amounts of data for access from users' computers.
    a. Application
    b. Disk
    c. Database
    d. Web

    ANS: C PTS: 1 REF: 32

26. The control programs managing computer hardware and software use the ____ function to control and prioritize tasks performed by the CPU.
    a. application management
    b. resource allocation
    c. data management
    d. job management

    ANS: D PTS: 1 REF: 32

27. The supervisor program of an OS is called the ____.
    a. kernel
    b. resource allocater
    c. job manager
    d. data manager

    ANS: A PTS: 1 REF: 33

28. ____ OSs allow several users to use computer resources simultaneously.
    a. Kernel
    b. Web-driven
    c. Hierarchical
    d. Time-shared

    ANS: D PTS: 1 REF: 33

29. Microsoft Word is an example of ____ software.
    a. spreadsheet
    b. presentation
    c. graphics
    d. word processing

    ANS: D PTS: 1 REF: 33

30. Using ____ software, you can perform "what if" analysis on data.
    a. spreadsheet
    b. graphics
    c. word processing
    d. kernel

    ANS: A PTS: 1 REF: 33

31. IBM Freelance is an example of ____ software.
    a. spreadsheet
    b. presentation
    c. graphics
    d. word processing

    ANS: C PTS: 1 REF: 34

32. ____ software, which is more powerful than spreadsheet software, is capable of performing many types analysis on large amounts of data.
    a. Financial planning
    b. Presentation
    c. Graphics
    d. Word processing

    ANS: A PTS: 1 REF: 34

33. The first generation of computer languages consists of a series of ____ representing data or instructions.
    a. macros
    b. 1s
    c. 0s
    d. 0s and 1s

    ANS: D PTS: 1 REF: 35

34. Java and C++ are ____ computer languages.
    a. assembly
    b. high-level
    c. fourth generation
    d. fifth generation

    ANS: B PTS: 1 REF: 35

35. ____ languages are the easiest computer languages to use.
    a. Assembly
    b. First-generation
    c. Fourth-generation
    d. Machine

    ANS: C PTS: 1 REF: 35

COMPLETION

1. The _____ is the heart of a computer.

   ANS:
   central processing unit (CPU)
   central processing unit
   CPU

   PTS: 1 REF: 23

2. The _____ tells the computer what to do, such as instructing the computer which device to read or send data to.

   ANS: control unit

   PTS: 1 REF: 23

3. In computers, data is stored in _____.

   ANS: bits

   PTS: 1 REF: 25

4. A(n) _____ pen is easy to use, inexpensive, and accurate and is particularly useful for engineers and graphics designers because they work well on modifications to technical drawings.

   ANS: light

   PTS: 1 REF: 27

5. The most common type of main memory is semiconductor memory chips made of _____.

ANS: silicon

PTS: 1 REF: 28

6. _____ read-only memory is similar to PROM, but its contents can be erased and reprogrammed.

   ANS: Erasable programmable

   PTS: 1 REF: 28

7. A(n) _____ disk made of mylar or metal is used for random-access processing.

   ANS: magnetic

   PTS: 1 REF: 29

8. _____ discs use laser beams to access and store data.

   ANS: Optical

   PTS: 1 REF: 29

9. A SAN offers only storage; a(n) _____ system offers both storage and file services.

   ANS:
   network attached storage (NAS)
   network attached storage
   NAS

   PTS: 1 REF: 31

10. _____ computers are usually compatible with the IBM System/360 line introduced in 1965.

    ANS: Mainframe

    PTS: 1 REF: 31

11. _____ servers store Web pages for access over the Internet.

    ANS: Web

    PTS: 1 REF: 32

12. The _____ function of an operating system manages computer resources, such as storage and memory.

    ANS: resource allocation

    PTS: 1 REF: 32

13. Microsoft PowerPoint is the most commonly used _____ software.

ANS: presentation

PTS: 1 REF: 33

14. _____ software is used for drafting and design and has replaced traditional tools, such as T-squares, triangles, paper, and pencils.

ANS:
Computer-aided design (CAD)
Computer-aided design
CAD

PTS: 1 REF: 34

15. Imagine that you could ask your computer, “What product generated the most sales last year?” This is an example of _____ processing.

ANS: natural language

PTS: 1 REF: 35

SHORT ANSWER

1. What are some possible future effects of the everyday use in computers?

ANS:
Computers have become so ubiquitous, that a cashless and checkless society is likely just around the corner. Similarly, computers might eliminate the need for business travel.

PTS: 1 REF: 21

2. Provide a high-level description of how to write a computer program.

ANS:
To write a computer program, first you must know what needs to be done, and then you must plan a method to achieve this goal, including selecting the right language for the task. Many computer languages are available - the language you select depends on the problem being solved and the type of computer you’re using. Regardless of the language, a program is also referred to as the “source code.” This source code must be translated into object code - consisting of binary 0s and 1s.

PTS: 1 REF: 22

3. What is the difference between a single processor and multiprocessor system?

ANS:
Some computers have a single processor; other computers, called "multiprocessors," contain multiple processors. Multiprocessing is the use of two or more CPUs in a single computer system. Generally, a multiprocessor computer has better performance than a single-processor computer in the same way that a team would have better performance than an individual on a large, time-consuming project.

PTS: 1 REF: 23

4. What is a motherboard?

ANS:
A motherboard is the main circuit board containing connectors for attaching additional boards. In addition, it usually contains the CPU, Basic Input/Output System (BIOS), memory, storage, interfaces, serial and parallel ports, expansion slots, and all the controllers for standard peripheral devices, such as the display monitor, disk drive, and keyboard.

PTS: 1 REF: 23

5. How is computer speed measured?

ANS:
Typically, computer speed is measured as the number of instructions performed per the following fractions of a second:
• Millisecond: 1/1000 of a second
• Microsecond: 1/1,000,000 of a second
• Nanosecond: 1/1,000,000,000 of a second
• Picosecond: 1/1,000,000,000,000 of a second

PTS: 1 REF: 25

6. What is a binary system?

ANS:
A binary system consists of 0s and 1s, with a 1 representing “on” and a 0 representing “off,” similar to a light switch.

PTS: 1 REF: 26

7. What are touch screens?

ANS:
Touch screens, which usually work with menus, are actually a combination of input devices. Some touch screens rely on light detection to determine which menu item has been selected, and others are pressure sensitive. Touch screens are often easier to use than keyboards, but they might not be as accurate because selections can be misread. You probably saw touch screens used extensively during the 2008 presidential election to show electoral maps and analyze election data in different ways quickly.

PTS: 1 REF: 27

8. What are the most common output devices for soft copy?

ANS:
The most common output devices for soft copy are cathode ray tube (CRT), plasma display, and liquid crystal display (LCD).

PTS: 1 REF: 27

9. What are the main types of secondary memory?

ANS:
There are three main types: magnetic disks, magnetic tape, and optical discs.

PTS: 1 REF: 29

10. Why are memory sticks popular?

ANS:
Memory sticks have become popular because of their small size, high storage capacity, and decreasing cost.

PTS: 1 REF: 29-30

11. Explain how RAID provides fault tolerance and improved performance.

ANS:
With RAID, data can be stored in multiple places to improve the system's reliability. In other words, if one disk in the array fails, data, isn't lost. In some RAID configurations, sequences of data can be read from multiple disks simultaneously, which improves performance.

PTS: 1 REF: 30

12. What is a fax server?

ANS:
Fax servers contain software and hardware components that enable users to send and receive faxes.

PTS: 1 REF: 32

13. What is a print server?

ANS:
Print servers enable users to send print jobs to network printers.

PTS: 1 REF: 32

14. Describe desktop publishing software.

ANS:
Desktop publishing software is used to produce professional-quality documents without expensive hardware and software. This software works on a "what-you-see-is-what-you-get" (WYSIWYG, pronounced "wizzy-wig") concept, so the high-quality screen display gives you a good idea of what you'll see in the printed output.

PTS: 1 REF: 34

15. What is assembly language?

ANS:
Assembly language, the second generation of computer languages, is a higher-level language than machine language but is also machine dependent. It uses a series of short codes, or mnemonics, to represent data or instructions

PTS: 1 REF: 35

ESSAY

1. Provide a definition for a computer and explain the purpose of a computer program.

   ANS:
   A computer is defined as a machine that accepts data as input, processes data without human intervention by using stored instructions, and outputs information. The instructions, also called a "program," are step-by-step directions for performing a specific task, written in a language the computer can understand. Remember that a computer only processes data (raw facts); it can't change or correct the data that's entered. If data is erroneous, the information the computer provides is also erroneous. This rule is sometimes called GIGO: garbage in, garbage out.

   PTS: 1 REF: 22

2. Describe the use of gallium arsenide as a replacement for silicone.

   ANS:
   Because silicon can't emit light and has speed limitations, computer designers have concentrated on technology using gallium arsenide, in which electrons move almost five times faster than in silicon. Devices made with this synthetic compound can emit light, withstand higher temperatures, and survive much higher doses of radiation than silicon devices. The major problems with gallium arsenide are difficulties in mass production. This material is softer and more fragile than silicon, so it breaks more easily during slicing and polishing. Because of the high costs and difficulty of production, the military is currently the major user of this technology. However, research continues to eliminate some shortcomings of this technology.

   PTS: 1 REF: 24

3. What is the most common type of main memory? Describe the purpose of cache RAM.

   ANS:
   The most common type of main memory is semiconductor memory chips made of silicon. A semiconductor memory device can be volatile or nonvolatile. Volatile memory is called random access memory (RAM), although you could think of it as "read-write memory." In other words, data can be read from and written to RAM. Some examples of the type of information stored in RAM include open files, the Clipboard's contents, running programs, and so forth. A special type of RAM, called cache RAM, resides on the processor. Because memory access from main RAM storage generally takes several clock cycles (a few nanoseconds), cache RAM stores recently accessed memory so that the processor isn't waiting for the memory transfer.

   PTS: 1 REF: 28

4. Describe the data management function of an operating system.

   ANS:
   This function controls data integrity by generating checksums to verify that data hasn't been corrupted or changed. Today's OSs use 256-bit checksums that guarantee integrity to almost 100 percent. Briefly, when the OS writes data to storage, it generates a value (the checksum) along with the data. The next time this data is retrieved, the checksum is recalculated and compared with the original checksum. If they match, the integrity is intact. If they don't, the data has been corrupted somehow. In addition, the OS can correct some corrupt data (but not all), back up data automatically to prevent data loss, and control access to data for improved security.

   PTS: 1 REF: 32-33

5. What are fifth-generation languages? Describe their features and provide examples of 5GLs.

   ANS:
   Fifth-generation languages (5GLs) use some of the artificial intelligent technologies, such as knowledge-based systems, natural language processing (NLP), visual programming, and graphical approach to using programming. Codes are automatically generated and designed to make the computer solve a given problem without a programmer or with minimum programming efforts. These languages are designed to facilitate natural conversations between you and the computer. Imagine that you could ask your computer, "What product generated the most sales last year?" Your computer, equipped with a voice synthesizer, could respond, "Product X." Dragon NaturallySpeaking Solutions is an example of NLP. Research continues in this field because of the promising results so far.

   PTS: 1 REF: 35