Visualizing Technology 10th edition Geoghan Test Bank

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Visualizing Technology, 10e **(Geoghan)**
Chapter 1 What Is a Computer?

1) Alan Turing is known for developing _____.
A) the Analytical Engine
B) punch cards for use in his loom
C) a test that tests a machine's ability to display intelligent behavior
D) programming
Answer: C
Diff: 2
Objective: 1.1 Explain the Functions of a Computer

2) _____ consists of these four components: input, processing, storage, and output.
A) The Turing test
B) Bioinformatics
C) The information processing cycle
D) Unicode
Answer: C
Diff: 1
Objective: 1.1 Explain the Functions of a Computer

3) Second-generation computers used _____.
A) microprocessors
B) transistors
C) integrated circuits
D) parallel processing
Answer: B
Diff: 2
Objective: 1.2 Describe the Evolution of Computer Hardware

4) Fourth-generation computers use _____.
A) microprocessors
B) transistors
C) integrated circuits
D) vacuum tubes
Answer: A
Diff: 2
Objective: 1.2 Describe the Evolution of Computer Hardware

5) _____ Law predicted that the number of transistors placed on an integrated circuit would double approximately every two years.
A) Turing's
B) Babbage's
C) Moore's
D) Lovelace's
Answer: C
Diff: 2
Objective: 1.2 Describe the Evolution of Computer Hardware

6) The _____ is a complex integrated circuit that enables it to act as the brain of the computer.
A) IC chip
B) microprocessor
C) transistor
D) vacuum tube
Answer: B
Diff: 2
Objective: 1.2 Describe the Evolution of Computer Hardware

7) The _____ is an early computer created in 1951, which was used to predict election results.
A) UNIVAC
B) ENIAC
C) Colossus
D) Harvard Mark 1
Answer: A
Diff: 3
Objective: 1.2 Describe the Evolution of Computer Hardware

8) The _____ was the first working, digital, general-purpose computer.
A) UNIVAC
B) ENIAC
C) Colossus
D) Z1
Answer: B
Diff: 3
Objective: 1.2 Describe the Evolution of Computer Hardware

9) Third-generation computers are characterized by the use of _____.
A) microprocessors
B) vacuum tubes
C) transistors
D) integrated circuits
Answer: D
Diff: 2
Objective: 1.2 Describe the Evolution of Computer Hardware

10) What is *not* true about vacuum tubes?
A) They resemble light bulbs.
B) They seldom need to be replaced.
C) They generate a lot of heat when operating.
D) They were used in first-generation computers.
Answer: B
Diff: 3
Objective: 1.2 Describe the Evolution of Computer Hardware

11) _____ computing refers to the efficient and eco-friendly use of computers.
A) Grid
B) Distributed
C) Ubiquitous
D) Green
Answer: D
Diff: 1
Objective: 1.2 Describe the Evolution of Computer Hardware

12) A _____ is the smallest unit of digital data.
A) bit
B) byte
C) character
D) binary code
Answer: A
Diff: 2
Objective: 1.3 Describe How Computers Represent Data Using Binary Code

13) A binary code using eight bits has _____ different possible combinations.
A) 256
B) 2
C) 128
D) 16
Answer: A
Diff: 3
Objective: 1.3 Describe How Computers Represent Data Using Binary Code

14) Eight bits equal _____ byte(s).
A) 256
B) 1
C) 16
D) 32
Answer: B
Diff: 1
Objective: 1.3 Describe How Computers Represent Data Using Binary Code

15) _____ computers offer the most speed, power, and upgradability for the lowest cost.
A) Tablet
B) Desktop
C) Netbook
D) All-in-one
Answer: B
Diff: 1
Objective: 1.4 List the Various Types and Characteristics of Personal Computers

16) A(n) _____ is a high-end desktop computer or one that is connected to a network in a business setting.
A) workstation
B) two-in-one
C) netbook
D) all-in-one
Answer: A
Diff: 2
Objective: 1.4 List the Various Types and Characteristics of Personal Computers

17) The Subscriber Identity Module (SIM card) stores all the following information on a mobile device, *except* _____.
A) apps
B) cellular carrier
C) account information
D) phone identification
Answer: A
Diff: 2
Objective: 1.5 Give Examples of Other Computing Devices

18) A _____ computer has a screen that can swivel and fold to resemble a tablet.
A) netbook
B) client
C) convertible notebook
D) subnotebook
Answer: C
Diff: 2
Objective: 1.4 List the Various Types and Characteristics of Personal Computers

19) The _____ was first designed to calculate artillery firing tables.
A) UNIVAC
B) ENIAC
C) Colossus
D) Harvard Mark I
Answer: B
Diff: 2
Objective: 1.2 Describe the Evolution of Computer Hardware

20) _____ is the study of the relationship between workers and their workspaces.
A) Genomics
B) Ergonomics
C) Workplace safety
D) Biometrics
Answer: B
Diff: 2
Objective: 1.4 List the Various Types and Characteristics of Personal Computers

21) The _____ is a tracking system created by the U.S. Department of Defense that uses satellites for navigation.
A) ENIAC
B) GPS
C) ASCII
D) UAS
Answer: B
Diff: 3
Objective: 1.5 Give Examples of Other Computing Devices

22) _____ is an example of a wearable computer.
A) An Apple Watch
B) An all-in-one
C) Google Chrome
D) Windows Continuum
Answer: A
Diff: 1
Objective: 1.5 Give Examples of Other Computing Devices

23) A(n) _____ is a computer that connects to or requests services from a server.
A) Analytical Engine
B) client
C) Turing machine
D) smart appliance
Answer: B
Diff: 1
Objective: 1.6 List the Various Types and Characteristics of Multiuser Computers

24) _____ are very expensive, complex computer systems used in weather forecasting and medical research.
A) Supercomputers
B) Enterprise computers
C) Minicomputers
D) Mainframe computers
Answer: A
Diff: 1
Objective: 1.6 List the Various Types and Characteristics of Multiuser Computers

25) Distributed computing distributes _____.
A) network access among all users
B) disk storage for all computer users
C) Internet usage across the entire network
D) the processing of tasks across a group of computers
Answer: D
Diff: 2
Objective: 1.6 List the Various Types and Characteristics of Multiuser Computers

26) Ubiquitous computing is also called _____.
A) microcomputing
B) intelligent computing
C) invisible computing
D) embedded computing processes (ECP)
Answer: C
Diff: 2
Objective: 1.7 Explain Ubiquitous Computing and Convergence

27) _____ computers are present in such diverse applications as gasoline pumps, home appliances, and traffic lights.
A) Embedded
B) Distributed
C) Grid
D) Convertible
Answer: A
Diff: 2
Objective: 1.7 Explain Ubiquitous Computing and Convergence

28) What technology allows computers to think and act more like people?
A) Bioinformatics
B) Convergence
C) Artificial intelligence
D) Ergonomics
Answer: C
Diff: 3
Objective: 1.1 Explain the Functions of a Computer

29) Smartphones use _____ technology, allowing users to perform several functions with one device.
A) convergence
B) grid computing
C) embedded design
D) invisible computing
Answer: A
Diff: 2
Objective: 1.7 Explain Ubiquitous Computing and Convergence

30) Which is *not* true about the CPU?
A) In most computers it runs the network.
B) It serves as the brain of the computer.
C) It controls all functions performed by other components.
D) It processes all the commands it receives.
Answer: A
Diff: 2
Objective: 1.2 Describe the Evolution of Computer Hardware

31) 3D images created by laser or another light source are known as _____.
A) virtual reality
B) augmented reality
C) holograms
D) mixed reality
Answer: C
Diff: 3
Objective: 1.5 Give Examples of Other Computing Devices

32) What is *not* true about laptop computers?
A) They are considered portable computing devices.
B) They are the same as notebook computers.
C) They can rival desktop computers in power and storage capacity.
D) They are usually less expensive than comparably equipped desktop computers.
Answer: D
Diff: 2
Objective: 1.4 List the Various Types and Characteristics of Personal Computers

33) What is *not* an advantage of multiuser computers?
A) They allow centralized security.
B) They allow centralized resources.
C) They are less powerful than personal computers.
D) They allow multiple users to connect to them.
Answer: C
Diff: 1
Objective: 1.6 List the Various Types and Characteristics of Multiuser Computers

34) What is *not* true about virtual reality?
A) It combines the best of the real world with the artificial world.
B) It consists of images and sounds created by a computer.
C) It is affected by the actions of the people using it.
D) It is an artificial world.
Answer: A
Diff: 2
Objective: 1.5 Give Examples of Other Computing Devices

35) A computer converts raw data into useful information.
Answer: TRUE
Diff: 1
Objective: 1.1 Explain the Functions of a Computer

36) The Analytical Engine was the first mechanical computer that was built.
Answer: FALSE
Diff: 2
Objective: 1.1 Explain the Functions of a Computer

37) Punch cards were developed as part of the Jacquard loom to manufacture textiles containing complex patterns.
Answer: TRUE
Diff: 2
Objective: 1.1 Explain the Functions of a Computer

38) The information processing cycle consists of five stages: input, processing, retrieval, storage, and output.
Answer: FALSE
Diff: 2
Objective: 1.1 Explain the Functions of a Computer

39) First-generation computers used vacuum tubes.
Answer: TRUE
Diff: 2
Objective: 1.2 Describe the Evolution of Computer Hardware

40) UNIVAC is considered the first working, digital, general-purpose computer.
Answer: FALSE
Diff: 2
Objective: 1.2 Describe the Evolution of Computer Hardware

41) Computers use a base 2 number system and binary codes to carry out commands.
Answer: TRUE
Diff: 2
Objective: 1.3 Describe How Computers Represent Data Using Binary Code

42) ASCII is the standard character system on the Internet.
Answer: FALSE
Diff: 2
Objective: 1.3 Describe How Computers Represent Data Using Binary Code

43) 256 bits equal one byte.
Answer: FALSE
Diff: 2
Objective: 1.3 Describe How Computers Represent Data Using Binary Code

44) Mac computers have a reputation for being secure, stable, and fun.
Answer: TRUE
Diff: 1
Objective: 1.4 List the Various Types and Characteristics of Personal Computers

45) Tablet computers rival desktop computers in power and storage capacity.
Answer: FALSE
Diff: 1
Objective: 1.4 List the Various Types and Characteristics of Personal Computers

46) The main difference between the Mac and the PC is the speed of the microprocessor.
Answer: FALSE
Diff: 2
Objective: 1.4 List the Various Types and Characteristics of Personal Computers

47) If you wanted to type in Latin, the ASCII system is what you would need.
Answer: FALSE
Diff: 1
Objective: 1.3 Describe How Computers Represent Data Using Binary Code

48) Computers worn on the body are known as embedded computers.
Answer: FALSE
Diff: 1
Objective: 1.5 Give Examples of Other Computing Devices

49) Distributed computing that uses a group of computers in one location is called grid computing.
Answer: TRUE
Diff: 2
Objective: 1.6 List the Various Types and Characteristics of Multiuser Computers

50) Mainframes are computer systems that perform complex mathematical calculations, such as those used in weather forecasting.
Answer: FALSE
Diff: 2
Objective: 1.6 List the Various Types and Characteristics of Multiuser Computers

51) Through convergence, many separate computerized functions can be performed by one device.
Answer: TRUE
Diff: 2
Objective: 1.7 Explain Ubiquitous Computing and Convergence

52) Embedded computers are found in everyday devices such as dishwashers, gasoline pumps, and grocery store cash registers.
Answer: TRUE
Diff: 2
Objective: 1.7 Explain Ubiquitous Computing and Convergence

53) Chromebooks are popular in K-12 schools.
Answer: TRUE
Diff: 2
Objective: 1.4 List the Various Types and Characteristics of Personal Computers

54) With virtual reality, you can interact with holograms in the real world.
Answer: FALSE
Diff: 2
Objective: 1.5 Give Examples of Other Computing Devices

55) Mac computers and computers running the Linux operating system are not considered personal computers.
Answer: FALSE
Diff: 1
Objective: 1.4 List the Various Types and Characteristics of Personal Computers

56) A video game system is a computer designed primarily to play games.
Answer: TRUE
Diff: 1
Objective: 1.5 Give Examples of Other Computing Devices

57) Supercomputers are found in businesses that have massive amounts of data or transactions to process.
Answer: FALSE
Diff: 2
Objective: 1.6 List the Various Types and Characteristics of Multiuser Computers

58) Devices that can be monitored and controlled remotely via a web browser or mobile app are a part of the Internet of Things.
Answer: TRUE
Diff: 2
Objective: 1.7 Explain Ubiquitous Computing and Convergence

59) The ability to change its _____ distinguishes a computer from any other machine.
Answer: programming
Diff: 1
Objective: 1.1 Explain the Functions of a Computer

60) Charles Babbage designed a mechanical computer called the _____.
Answer: Analytical Engine
Diff: 2
Objective: 1.1 Explain the Functions of a Computer

61) Mobile _____ are programs that extend the functionality of mobile devices.
Answer: apps, applications
Diff: 1
Objective: 1.4 List the Various Types and Characteristics of Personal Computers

62) The information processing cycle converts raw data into _____.
Answer: information
Diff: 1
Objective: 1.1 Explain the Functions of a Computer

63) The Internet of _____ is the connection of the physical world to the Internet.
Answer: Things
Diff: 3
Objective: 1.7 Explain Ubiquitous Computing and Convergence

64) _____ Law predicts that the number of transistors that could be placed on an integrated circuit doubles about every two years.
Answer: Moore's
Diff: 2
Objective: 1.2 Describe the Evolution of Computer Hardware

65) _____ are chips that contain large numbers of transistors.
Answer: Integrated circuits
Diff: 3
Objective: 1.2 Describe the Evolution of Computer Hardware

66) _____ resemble incandescent light bulbs and give off a lot of heat.
Answer: Vacuum tubes
Diff: 2
Objective: 1.2 Describe the Evolution of Computer Hardware

67) Digital data, used by a computer, is represented by a(n) _____ code.
Answer: binary
Diff: 2
Objective: 1.3 Describe How Computers Represent Data Using Binary Code

68) _____ is a character system using a 7-bit system that was later expanded to an 8-bit system.
Answer: ASCII
Diff: 3
Objective: 1.3 Describe How Computers Represent Data Using Binary Code

69) _____ is the standard character set on the Internet and includes codes for most of the world's written languages.
Answer: Unicode
Diff: 3
Objective: 1.3 Describe How Computers Represent Data Using Binary Code

70) A(n) _____ is a notebook computer that is thin and light, and that has high-end processing and video capabilities.
Answer: subnotebook
Diff: 2
Objective: 1.4 List the Various Types and Characteristics of Personal Computers

71) A(n) _____ is a special pen that allows users to write directly on a screen.
Answer: stylus
Diff: 2
Objective: 1.4 List the Various Types and Characteristics of Personal Computers

72) _____ computers have an integrated monitor and are used when office space is an issue.
Answer: All-in-one
Diff: 2
Objective: 1.4 List the Various Types and Characteristics of Personal Computers

73) _____ is the study of workers and their workplaces.
Answer: Ergonomics
Diff: 2
Objective: 1.4 List the Various Types and Characteristics of Personal Computers

74) _____ design principles help accommodate people with disabilities.
Answer: Universal
Diff: 2
Objective: 1.4 List the Various Types and Characteristics of Personal Computers

75) GPS stands for _____.
Answer: Global Positioning System
Diff: 3
Objective: 1.5 Give Examples of Other Computing Devices

76) _____ are the basic units of quantum information.
Answer: Qubits, Quantum bits
Diff: 2
Objective: 1.5 Give Examples of Other Computing Devices

77) A game _____ is a device used to interact with a video game.
Answer: controller
Diff: 2
Objective: 1.5 Give Examples of Other Computing Devices

78) A hands-free computer used for health monitoring is an example of a(n) _____ computer.
Answer: wearable
Diff: 2
Objective: 1.5 Give Examples of Other Computing Devices

79) _____ are computers that provide services like Internet access, email, and print services for a group of computers.
Answer: Servers
Diff: 2
Objective: 1.6 List the Various Types and Characteristics of Multiuser Computers

80) Distributed computing that uses a group of computers in one location is called _____ computing.
Answer: grid
Diff: 2
Objective: 1.6 List the Various Types and Characteristics of Multiuser Computers

81) An unmanned aircraft system is also known as a(n) _____.
Answer: drone
Diff: 2
Objective: 1.7 Explain Ubiquitous Computing and Convergence

82) _____ computing is also referred to as invisible computing.
Answer: Ubiquitous
Diff: 3
Objective: 1.7 Explain Ubiquitous Computing and Convergence

83) Using a smartphone to pay an electric bill is an example of _____ technology.
Answer: convergence
Diff: 3
Objective: 1.7 Explain Ubiquitous Computing and Convergence

84) _____ applies information technology to the field of biology.
Answer: Bioinformatics
Diff: 2
Objective: 1.3 Describe How Computers Represent Data Using Binary Code

85) In _____ Reality, virtual content is overlaid on the physical world.
Answer: Augmented
Diff: 2
Objective: 1.5 Give Examples of Other Computing Devices

86) The _____ processing unit is considered the brain of the computer.
Answer: central
Diff: 2
Objective: 1.2 Describe the Evolution of Computer Hardware

87) The efficient and eco-friendly use of computers and other electronics is called _____ computing.
Answer: green
Diff: 2
Objective: 1.2 Describe the Evolution of Computer Hardware

88) If you use your cell phone to pay for an item, rather than cash or credit cards, you are using a(n) _____.
Answer: mobile payment system
Diff: 2
Objective: 1.7 Explain Ubiquitous Computing and Convergence

89) A network for delivering electricity that includes communication technology to manage electricity distribution efficiently is known as a(n) _____.
Answer: smart grid
Diff: 2
Objective: 1.2 Describe the Evolution of Computer Hardware

90) _____ homes use home automation to control lighting, heating and cooling, security, entertainment, and appliances.
Answer: Smart
Diff: 2
Objective: 1.2 Describe the Evolution of Computer Hardware

91) _____ computing projects harness the idle processing power of hundreds or thousands of personal computers.
Answer: Volunteer
Diff: 2
Objective: 1.6 List the Various Types and Characteristics of Multiuser Computers

92) Quantum computers use the quantum properties of superposition and _____ to create multiple states.
Answer: entanglement
Diff: 2
Objective: 1.3 Describe How Computers Represent Data Using Binary Code

93) A(n) _____ notebook has a detachable screen that converts to a tablet.
Answer: two-in-one
Diff: 2
Objective: 1.4 List the Various Types and Characteristics of Personal Computers

94) Match each of the following terms to its meaning:
I. bit
II. byte
III. base 2
IV. ASCII
V. Unicode

A. represents a single character
B. smallest unit of digital information
C. originally 7-bit system to represent characters
D. standard character set on the Internet
E. binary number system
Answer: B, A, E, C, D
Diff: 2
Objective: 1.3 Describe How Computers Represent Data Using Binary Code

95) Match each of the following decimal values to its prefix:
I. 1,000
II. 1,000,000
III. 1,000,000,000
IV. 1,000,000,000,000
IV. 1,000,000,000,000,000

A. mega
B. kilo
C. giga
D. tera
E. peta
Answer: B, A, C, D, E
Diff: 2
Objective: 1.3 Describe How Computers Represent Data Using Binary Code

96) Match each of the following terms to its meaning:
I. artificial intelligence
II. Turing test
III. Moore's Law
IV. Qubits
V. GPS

A. branch of science related to making computers behave like humans
B. use the quantum properties of superposition and entanglement
C. determines a machine's ability to display intelligent behavior
D. system used to determine one's location
E. predicts the growth of integrated circuitry
Answer: A, C, E, B, D
Diff: 3
Objective: Multiple objectives in the chapter

97) Match each of the following terms to its meaning:
I. server
II. all-in-one
III. workstation
IV. tablet
V. notebook

A. portable personal computer
B. high-end computer attached to a network
C. a computer that provides Internet, email, or printing services
D. handheld mobile device
E. desktop computer with an integrated monitor and system unit
Answer: C, E, B, D, A
Diff: 3
Objective: Multiple objectives in the chapter

98) Match each of the following terms to its meaning:
I. stylus
II. ergonomics
III. wearable computer
IV. embedded
V. bioinformatics

A. digital pen
B. hands-free device used for health monitoring
C. application of information technology to the field of biology
D. type of computer present at gasoline pumps, traffic lights, and supermarket self-checkout lines
E. study of the relationship between workers and their workspaces
Answer: A, E, B, D, C
Diff: 3
Objective: Multiple objectives in the chapter

99) Match each of the following terms to its meaning:
I. data
II. enterprise server
III. operating system
IV. ubiquitous computing
V. unmanned aircraft system

A. provides user interface to communicate with computer hardware and software
B. technology in the background
C. numbers, words, or sounds that represent facts about people, things, or ideas
D. a drone
E. also called a mainframe computer
Answer: C, E, A, B, D
Diff: 2
Objective: Multiple objectives in the chapter

100) Match each of the following computer generations to the type of electrical component used:
I. first-generation
II. second-generation
III. third-generation
IV. fourth-generation

A. transistors
B. integrated circuits
C. microprocessors
D. vacuum tubes
Answer: D, A, B, C
Diff: 2
Objective: 1.2 Describe the Evolution of Computer Hardware