

Connecting to Computing Sciences

Number: CSI-101

Passing Score: 800

Time Limit: 120 min

File Version: 2.0

Sections

1. History and social implications of computing
2. Computing security and ethics
3. Computer architecture
4. Networks
5. The Internet
6. Database fundamentals
7. Numbering systems and data representations
8. Data structures
9. Operating systems
10. File structures
11. The human-computer interface
12. Software tools for technies
13. Software engineering
14. Programming I
15. Programming II

Exam A

QUESTION 1

In 1642 Pascal created a mechanical device with gears and levers. This device was capable of what kind of calculation?

- A. Addition
- B. Addition and subtraction
- C. Addition, subtraction, and multiplication
- D. Addition, subtraction, multiplication, and division

Answer: B

Section: History and social implications of computing

QUESTION 2

Leibniz built on Pascal's work by creating the Leibniz Wheel. This device was capable of what kind of calculations in addition to the ones Pascal's could do?

- A. Subtraction
- B. Addition and multiplication
- C. Subtraction and multiplication
- D. Multiplication and division

Answer: D

Section: History and social implications of computing

QUESTION 3

The Jacquard loom is important in the history of computing for what innovation?

- A. It worked like a player piano.
- B. Reusable cards with holes held information.
- C. It used gears and wheels for calculation.
- D. Paper rolls with holes held information.

Answer: B

Section: History and social implications of computing

QUESTION 4

IBM has some of its origins in what 1890 event?

- A. The U.S. census
- B. The first Jacquard loom in the United States
- C. Ada Lovelace's first program loop
- D. The introduction of electricity to the United States

Answer: A

Section: History and social implications of computing

QUESTION 5

Name the four important elements of Babbage's Engine that are components of today's computer.

- A. The stored program technique, an input device, an output device, and memory
- B. Mechanical calculation equipment, human-powered mechanisms, punched cards, and an output device
- C. An input device, memory, a central processing unit, an output device
- D. An input device, the stored program technique, a central processing unit, and an output device

Answer: C

Section: History and social implications of computing

QUESTION 6

What logical elements did Charles Sanders Peirce realize electrical switches could emulate in 1880?

- A. Epistemological calculus
- B. Ontological algebra
- C. Boolean algebra
- D. Metaphysical algebra

Answer: C

Section: History and social implications of computing

QUESTION 7

The U.S. military used the ENIAC computer for its intended purpose during World War II.

- A. True
- B. False

Answer: B

Section: History and social implications of computing

QUESTION 8

What important concept is attributed to John Von Neumann?

- A. The large memory concept
- B. The stored program concept
- C. The discrete variable automation concept
- D. The virtual memory concept

Answer: B

Section: History and social implications of computing

QUESTION 9

What company controlled 70% or more of the computer marketplace in the '60s and '70s?

- A. Sperry-Univac
- B. International Business Machines
- C. Hollerith Machines
- D. Microsoft

Answer: B

Section: History and social implications of computing

QUESTION 10

What features of transistors made them superior for computers, compared with vacuum tubes?

- A. They were more expensive than tubes but lasted longer and were cooler in temperature.
- B. They didn't last as long as tubes but were less expensive.
- C. They were cheaper and smaller than tubes.
- D. They were cheaper, smaller, and cooler than tubes and lasted longer.

Answer: D

Section: History and social implications of computing

QUESTION 11

What important pastry helped move your job up in the queue in second-generation software, and what third-generation software development made that pastry unnecessary?

- A. Donuts and integrated circuits
- B. Bear claws and multitasking
- C. Donuts and time-sharing
- D. Donuts and virtual memory

Answer: C

Section: History and social implications of computing

QUESTION 12

In hardware, the next step up from the transistor was the transmitter.

- A. True
- B. False

Answer: B

Section: History and social implications of computing

QUESTION 13

What magazines can you thank for the first microcomputer?

- A. Science and Wall Street Journal

- B. Popular Electronics and Radio Electronics
- C. Popular Electronics and Star Trek Monthly
- D. New Mexico Entrepreneur and Radio Electronics

Answer: B

Section: History and social implications of computing

QUESTION 14

What important concept did the Altair use, which was borrowed by its competition, including the IBM personal computer?

- A. The computer came in kit form
- B. The computer's price was \$666.
- C. The machine had an open architecture.
- D. The machine could be used without plugging it into a wall outlet.

Answer: C

Section: History and social implications of computing

QUESTION 15

The Apple computer became very popular. What was its largest market, and what software made it interesting to that market?

- A. The education market and the educational game Shape Up
- B. The games market and the game The Big Race
- C. The business market and the program Lotus 1-2-3
- D. The business market and the program VisiCalc

Answer: D

Section: History and social implications of computing

QUESTION 16

In 1990, what software company dominated the software market, and what major product did it sell?

- A. Lotus and Lotus 1-2-3
- B. Bricklin and VisiCalc
- C. Apple and the Apple Operating System
- D. Microsoft and Word

Answer: A

Section: History and social implications of computing

QUESTION 17

Today, Microsoft considers its major competition in operating systems to be what system?

- A. Control Data Corporation OS
- B. Sega Games operating system
- C. Linux operating system
- D. Mac OS X

Answer: C

Section: History and social implications of computing

QUESTION 18

ARPA was created in response to what major event in world history?

- A. World War II
- B. The McCarthy hearings of the 1950s
- C. The launch of Sputnik
- D. The inability of computers to communicate with one another

Answer: C

Section: History and social implications of computing

QUESTION 19

Name the three most likely critical large-scale developments of the fifth generation of software development from this list of options:

- A. Parallel computing, networking, and the multiple-data-stream approach
- B. The graphical user interface, networking, and computer-aided software engineering (CASE) tools
- C. Networking, the graphical user interface, and packet switching
- D. ARPANET, the Internet, and CASE tools

Answer: B

Section: History and social implications of computing

QUESTION 20

Marc Andreessen released what application that made browsers widespread?

- A. Netscape
- B. Mosaic
- C. Explorer
- D. Hypertext

Answer: B

Section: History and social implications of computing

QUESTION 21

The integration of Internet Explorer with the dominant Windows operating system was the turning point in what came to be known as the “_____”.

- A. Internet affair
- B. network nightmare
- C. code conflict
- D. browser wars

Answer: D

Section: History and social implications of computing

QUESTION 22

Based on low cost, available source code, and reputed reliability, which of the following operating systems presents the greatest competitive threat to Windows?

- A. Linux
- B. OS/2
- C. Star
- D. Crescent

Answer: A

Section: History and social implications of computing

QUESTION 23

In its antitrust suit with the government, Microsoft claimed which of the following programs was an integral part of the operating system?

- A. MS-Word
- B. Navigator
- C. Internet Explorer
- D. Mosaic

Answer: C

Section: History and social implications of computing

QUESTION 24

The term ____ computing or ____ architectures refers to linking a number of CPUs to work on a task simultaneously.

- A. parallel
- B. sequential
- C. serial
- D. monolithic

Answer: A

Section: History and social implications of computing

QUESTION 25

The Altair bus evolved into a specialized device that only a few hardware/software companies could use.

- A. True
- B. False

Answer: B

Section: History and social implications of computing

QUESTION 26

ENIAC was a functioning and useful computer that could perform both arithmetic and ____ operations.

- A. linguistic
- B. surgical
- C. logical
- D. standard

Answer: C

Section: History and social implications of computing

QUESTION 27

Which of the following was the first commercially viable computer?

- A. UNIVAC
- B. ENIAC
- C. EDVAC
- D. Mark I

Answer: A

Section: History and social implications of computing

QUESTION 28

According to general consensus, which of the following companies won the mainframe battle of the first electronic computer generation?

- A. Remington Rand
- B. Microsoft
- C. Honeywell
- D. IBM

Answer: D

Section: History and social implications of computing

Exam B

QUESTION 1

Computer security affects:

- A. Programmers and system administrators
- B. Naive users
- C. All users of computers
- D. Everyone

Answer: D

Section: Computing security and ethics

QUESTION 2

John Draper created:

- A. A whistle in Cap'n Crunch cereal
- B. Software for Microsoft
- C. Software for Apple
- D. A secure router

Answer: B

Section: Computing security and ethics

QUESTION 3

The term "hacker" originally had a negative connotation.

- A. True
- B. False

Answer: B

Section: Computing security and ethics

QUESTION 4

The term "script kiddie" refers to what?

- A. Con man
- B. Youthful hacker
- C. Unsophisticated cracker
- D. A game for hackers

Answer: C

Section: Computing security and ethics

QUESTION 5

What is the likely motivation of an undirected hacker?

- A. Technical challenge
- B. Greed
- C. Anger
- D. Politics, economics, poverty

Answer: A

Section: Computing security and ethics

QUESTION 6

What is the likely motivation of a directed hacker?

- A. Technical challenge
- B. Anger, greed, politics
- C. Fear
- D. Improving society

Answer: B

Section: Computing security and ethics

QUESTION 7

The term hacktivists refers to:

- A. Hackers motivated by greed
- B. Hackers motivated by economics
- C. Hackers who use social engineering
- D. Hackers motivated by politics

Answer: D

Section: Computing security and ethics

QUESTION 8

The Hacker's Manifesto does what?

- A. Specifies how to break into systems
- B. Justifies hacking as an end in itself
- C. Justifies prosecuting hackers and crackers for their crimes
- D. Uses Communist theory to justify hacking for its inherent justice

Answer: B

Section: Computing security and ethics

QUESTION 9

What was the backdoor on a basic e-mail program in early versions of UNIX?

- A. rlogin
- B. login
- C. ls -l
- D. blogin

Answer: A

Section: Computing security and ethics

QUESTION 10

Trojan programs are different from viruses because they need to be transported by an e-mail program and viruses do not.

- A. True
- B. False

Answer: B

Section: Computing security and ethics

QUESTION 11

One of the most notorious social engineers of the 1990s was:

- A. Clifford Stoll
- B. John Draper
- C. David L. Smith
- D. Kevin Mitnick

Answer: D

Section: Computing security and ethics

QUESTION 12

In a social engineering attack, a company phone book can be the target.

- A. True
- B. False

Answer: A

Section: Computing security and ethics

QUESTION 13

What does a modification attack do?

- A. Denies users access to the system
- B. Changes software and information
- C. Modifies evidence of system entry
- D. Allows access to a computer system

Answer: B

Section: Computing security and ethics

QUESTION 14

One way to ensure that you have a backup of information is to use a UPS.

- A. True
- B. False

Answer: B

Section: Computing security and ethics

QUESTION 15

Which of the following doesn't stop virus and worm attacks?

- A. SpamKiller
- B. Opening e-mail attachments
- C. A disaster recovery plan
- D. Updating your antivirus software

Answer: C

Section: Computing security and ethics

QUESTION 16

The best passwords are 8 to 10 letters long.

- A. True
- B. False

Answer: B

Section: Computing security and ethics

QUESTION 17

A virus-checking program that uses heuristics uses:

- A. A honeypot
- B. A virus signature
- C. A checksum on files to check their validity
- D. A set of rules to anticipate a virus's behavior

Answer: D

Section: Computing security and ethics

QUESTION 18

Encryption algorithm standards used in computers today are:

- A. Substitution, transcription, compaction, expansion
- B. S-HTTP, SEC, SSL
- C. DES, RSA, AES
- D. Proxy, packet, DMZ

Answer: C

Section: Computing security and ethics

QUESTION 19

SSN is a more secure way of transferring files than Telnet.

- A. True
- B. False

Answer: B

Section: Computing security and ethics

QUESTION 20

What kind of service is best placed in a DMZ?

- A. FTP and SMTP
- B. Internal DNS server
- C. Web server
- D. Database server

Answer: C

Section: Computing security and ethics

QUESTION 21

The legal protection usually sought for software source code is:

- A. A patent
- B. A copyright
- C. A trademark
- D. A trade secret

Answer: D

Section: Computing security and ethics

QUESTION 22

Utilitarianism is a set of ethical principles that focuses on individual consequences of an action.

- A. True

B. False

Answer: B

Section: Computing security and ethics

QUESTION 23

The set of ethical principles that puts principles in terms of natural rights is:

- A. Rule-deontology
- B. Deontology
- C. Egoism
- D. Utilitarianism

Answer: A

Section: Computing security and ethics

QUESTION 24

According to an argument in the chapter concerning piracy, an egoist would consider piracy unethical because:

- A. It is illegal.
- B. It could affect many systems if a virus is released.
- C. It is against the ACM rules of conduct.
- D. The company that sells the software could lose share value.

Answer: D

Section: Computing security and ethics

QUESTION 25

You should always reply to spam e-mail with "Unsubscribe" in the subject line.

- A. True
- B. False

Answer: B

Section: Computing security and ethics

QUESTION 26

_____ are shortcuts into programs created by system designers to facilitate system maintenance but used and abused by crackers.

- A. Checksums
- B. Heuristics
- C. Bots
- D. Backdoors

Answer: D

Section: Computing security and ethics

QUESTION 27

A (n) _____ occurs when a program tries to place more information into a memory location than it can handle.

- A. access attack
- B. buffer overflow
- C. virus attack
- D. modification attack

Answer: B

Section: Computing security and ethics

QUESTION 28

_____ is a private network connection that “tunnels” through a larger, public network and is restricted to authorized users.

- A. DMZ
- B. VPN
- C. Proxy firewall
- D. AUP

Answer: B

Section: Computing security and ethics

QUESTION 29

Which of the following wireless security controls can be easily and quickly circumvented using only a network sniffer? (Select TWO)

- A. MAC filtering
- B. WPA2-Enterprise
- C. WEP with 802.1x
- D. Disabled SSID broadcast

Answer: AD

Section: Computing security and ethics

QUESTION 30

Which of the following risks may result from improper use of social networking and P2P software?

- A. Shoulder surfing
- B. Information disclosure
- C. Denial of service
- D. Data loss prevention

Answer: B

Section: Computing security and ethics

QUESTION 31

A user downloads a keygen to install pirated software. After running the keygen, system performance is extremely slow and numerous antivirus alerts are displayed. Which of the following BEST describes this type of malware?

- A. Logic bomb
- B. Worm
- C. Trojan
- D. Adware

Answer: C

Section: Computing security and ethics

Exam C

QUESTION 1

Which of the following circuit types is used to create SRAM?

- A. Decoder
- B. Flip-flop
- C. LCD
- D. ROM

Answer: B

Section: Computer architecture

QUESTION 2

Which of the following is not one of the basic Boolean operators?

- A. AND
- B. OR
- C. NOT
- D. XOR

Answer: D

Section: Computer architecture

QUESTION 3

Transistors are made of _____ material.

- A. Semiconductor
- B. Boolean
- C. VLSI
- D. Gate

Answer: A

Section: Computer architecture

QUESTION 4

Which of the following is not one of the bus signal groups?

- A. Control
- B. Address
- C. Data
- D. Fetch

Answer: D

Section: Computer architecture

QUESTION 5

Which type of memory can't be written to easily?

- A. RAM
- B. SRAM
- C. ROM
- D. Flip-flop

Answer: C

Section: Computer architecture

QUESTION 6

Which of the following memory types is the fastest?

- A. DRAM
- B. ROM
- C. XOR
- D. SRAM

Answer: D

Section: Computer architecture

QUESTION 7

In a truth table, inputs are represented on which side?

- A. Top
- B. Bottom
- C. Left
- D. Right

Answer: C

Section: Computer architecture

QUESTION 8

Any Boolean expression can be represented by a truth table.

- A. True
- B. False

Answer:

Section: Computer architecture

QUESTION 9

Inputs of 1 and 0 to an XOR gate produce what output?

- A. 0
- B. 1

Answer: B

Section: Computer architecture

QUESTION 10

In a computer, what function does a decoder usually perform?

- A. Adding
- B. Shifting
- C. Addressing memory
- D. Multiplying

Answer: C

Section: Computer architecture

QUESTION 11

Boolean expressions are simplified through the use of:

- A. Basic identities
- B. Gate logic
- C. Algebraic expressions
- D. Specialized circuits

Answer: A

Section: Computer architecture

QUESTION 12

Which type of I/O processing is most efficient?

- A. Boolean
- B. Polling
- C. Logic
- D. Interrupt

Answer: D

Section: Computer architecture

QUESTION 13

Which of the following defines the display quality of a monitor?

- A. Resolution
- B. Flip rate
- C. Beam strength

D. Inversion

Answer: A

Section: Computer architecture

QUESTION 14

Most computers today are based on:

- A. Von Neumann architecture
- B. Upscale integration
- C. Tabulation basics
- D. Small-Scale Integration

Answer: A

Section: Computer architecture

QUESTION 15

Which part of the CPU is responsible for mathematical operations?

- A. CU
- B. ALU
- C. RLU
- D. VLSI

Answer: B

Section: Computer architecture

QUESTION 16

A _____ in computer terminology is a set of wires and protocols designed to facilitate data transfer.

- A. Gate
- B. Bus
- C. Boolean circuit
- D. CPU

Answer: B

Section: Computer architecture

QUESTION 17

Most computers these days use the _____ bus.

- A. VLSI
- B. ACM
- C. ASI
- D. PCI

Answer: D

Section: Computer architecture

QUESTION 18

The _____ contains instructions and data that provide the startup program for a computer.

- A. RAM
- B. DRAM
- C. BIOS
- D. CPU

Answer: C

Section: Computer architecture

QUESTION 19

High-speed _____ is used to speed processing in a computer system.

- A. Mass storage
- B. Cache memory
- C. ROM
- D. CD-ROM

Answer: B

Section: Computer architecture

QUESTION 20

The quality of printer output is measured in _____.

- A. ppm
- B. cu
- C. dpi
- D. rom

Answer: C

Section: Computer architecture

QUESTION 21

At a basic level, most computers operate on what is called a ____ cycle.

- A. encrypt-encapsulate
- B. edit-add
- C. store-revise
- D. fetch-execute

Answer: D

Section: Computer architecture

QUESTION 22

RAM is called "____" because it does not have to be read sequentially.

- A. relative
- B. random
- C. remedial
- D. rapid

Answer: B

Section: Computer architecture

QUESTION 23

Which of the following storage forms is non-volatile?

- A. DRAM
- B. SRAM
- C. DDRAM
- D. CD-ROM

Answer: D

Section: Computer architecture

QUESTION 24

Hard disks are made up of one or more metal platters with a coating consisting of ____ particles.

- A. magnetic
- B. atomic
- C. photonic
- D. silicon

Answer: A

Section: Computer architecture

QUESTION 25

Keyboards, and most other I/O devices, connect to the motherboard through a (n) ____.

- A. socket
- B. adapter
- C. channel
- D. port

Answer: D

Section: Computer architecture

QUESTION 26

The process of painting an image on the screen of a monitor is called ____ scanning.

- A. raster
- B. roster
- C. cathode
- D. dpi

Answer: A

Section: Computer architecture

Exam D

QUESTION 1

Which is a better signal-to-noise ratio?

- A. High
- B. Low
- C. Guided
- D. Unguided

Answer: A

Section: Networks

QUESTION 2

Fiber-optic cable is made of:

- A. Glass
- B. Nylon
- C. Braided copper
- D. Copper

Answer: A

Section: Networks

QUESTION 3

Which is a faster networking cable?

- A. 10BaseT
- B. 100BaseT
- C. 1000BaseFX
- D. 100BaseTx

Answer: C

Section: Networks

QUESTION 4

Which of the following standards is used in wireless networking?

- A. Cat 5
- B. ISO OSI
- C. 802.11
- D. TCP

Answer: C

Section: Networks

QUESTION 5

Which of the following is not one of the OSI model layers?

- A. Physical
- B. Wireless
- C. Transport
- D. Application

Answer: B

Section: Networks

QUESTION 6

Which of the OSI layers is responsible for guaranteed delivery of data?

- A. Transport
- B. Network
- C. Data Link
- D. Presentation

Answer: A

Section: Networks

QUESTION 7

Which of the OSI layers is involved with a network's electrical specifications?

- A. Physical
- B. Network
- C. Session
- D. Transport

Answer: A

Section: Networks

QUESTION 8

Which of the following is a LAN topology?

- A. Cat 5
- B. Coaxial
- C. Star
- D. Repeater

Answer: C

Section: Networks

QUESTION 9

A hub has a single input and a single output.

- A. True
- B. False

Answer: B

Section: Networks

QUESTION 10

Normal speeds of a cable modem are approximately:

- A. 56 KHz
- B. 1 Mbps
- C. 10 Mbps
- D. 100 Mbps

Answer: B

Section: Networks

QUESTION 11

DSL speeds range from:

- A. 256 Kbps to 1.5 Mbps
- B. 256 Mbps to 15 Mbps
- C. 56 Kbps to 256 Kbps
- D. 100 Kbps to 156 Kbps

Answer: A

Section: Networks

QUESTION 12

Standard voice-grade lines are designed to carry frequencies in the range of:

- A. 1.5 MHz to 15 MHz
- B. 500 MHz to 1 MHz
- C. 56 KHz to 100 KHz
- D. 300 Hz to 3300 Hz

Answer: D

Section: Networks

QUESTION 13

Modems convert binary digits into sounds by modulating tones.

- A. True

B. False

Answer: A

Section: Networks

QUESTION 14

Which of the following is not a network device?

- A. Router
- B. Gateway
- C. Ramp
- D. Hub

Answer: C

Section: Networks

QUESTION 15

Which of the following is used to connect a computer to a network?

- A. Gateway
- B. NIC
- C. RAM
- D. Router

Answer: B

Section: Networks

QUESTION 16

What factor reduces the strength of an electrical signal as it travels along a transmission medium?

- A. Bandwidth
- B. Signal-to-noise ratio
- C. Bit error rate
- D. Attenuation

Answer: D

Section: Networks

QUESTION 17

Which of the following is the most commonly used twisted pair cable category?

- A. Cat 1
- B. Cat 5
- C. 10Base2
- D. 10Base5

Answer: B

Section: Networks

QUESTION 18

Which type of guided medium is the least susceptible to attenuation and inductance?

- A. Coaxial cable
- B. Twisted pair cable
- C. Fiber-optic cable
- D. They are all the same

Answer: C

Section: Networks

QUESTION 19

Which topology has become more popular with the advent of the Internet and home networking?

- A. Token ring
- B. Star
- C. Bus
- D. Loop

Answer: B

Section: Networks

QUESTION 20

DSL is a combination of what two types of multiplexing?

- A. FDM and TDM
- B. FDM and FM
- C. AM and TDM
- D. AM and FM

Answer: A

Section: Networks

QUESTION 21

The Transport layer of the OSI model uses data units called _____.

- A. bytograms
- B. datagrams
- C. bitgrams
- D. words

Answer: B
Section: Networks

QUESTION 22

Each layer in the OSI model is defined in terms of a/an _____ and a protocol data unit.

- A. header
- B. abstract
- C. brief
- D. comment

Answer: A
Section: Networks

QUESTION 23

Using _____, a packet can just be sent on an alternate line if the desired line is damaged or busy.

- A. hubs
- B. routers
- C. switches
- D. linkers

Answer: B
Section: Networks

QUESTION 24

TCP and IP protocols map to Transport, Network, and _____ layers of the OSI model.

- A. Presentation
- B. Application
- C. Data Link
- D. Session

Answer: D
Section: Networks

QUESTION 25

The center connection point of a star network is a _____

- A. Repeater
- B. Bridge
- C. Router
- D. Switch

Answer: D

Section: Networks

QUESTION 26

The OSI network layer model consists of the following in-order layers:

- A. Physical, Network, Data link, TCP, Session, Presentation, Application
- B. Physical, Data link, Network, Transport, Presentation, Session, Application
- C. Physical, Data link, Network, Transport, Session, Presentation, Application
- D. Physical, Network, Transport, TCP/IP, Session, Presentation, Application

Answer: C

Section: Networks

QUESTION 27

Which service listed below is used to resolve IP address and domain name?

- A. DNS
- B. DHCP
- C. ARP
- D. TCP

Answer: A

Section: Networks

QUESTION 28

A (n) _____ diagram shows the protocol interactions between two entities.

- A. assignment
- B. timing
- C. hierarchy
- D. flow

Answer: B

Section: Networks

QUESTION 29

The _____ layer of the OSI model is responsible for translation, formatting, and syntax selection.

- A. Session
- B. Presentation
- C. Data Link
- D. Application

Answer: B

Section: Networks

QUESTION 30

A _____ is a relatively small number of computers connected together in close proximity, usually within a building or complex.

- A. MAN
- B. Internet
- C. WAN
- D. LAN

Answer: D

Section: Networks

QUESTION 31

Subnets are defined through the use of a subnet _____.

- A. filter
- B. screen
- C. sentinel
- D. mask

Answer: D

Section: Networks

Exam E

QUESTION 1

The Internet is owned by:

- A. ARIN
- B. The FCC
- C. The United Nations
- D. None of the above

Answer: D

Section: The Internet

QUESTION 2

Internet providers maintain a switching center called a:

- A. Point of presence
- B. Backbone
- C. Router
- D. None of the above

Answer: A

Section: The Internet

QUESTION 3

The purpose of HTTP is to:

- A. Format Web pages
- B. Transfer Web pages
- C. Route addresses
- D. None of the above

Answer: B

Section: The Internet

QUESTION 4

Which of the following is not an Internet-related protocol?

- A. HTTP
- B. HTML
- C. TCP
- D. FTP

Answer: B

Section: The Internet

QUESTION 5

How many possible ports are allowed in TCP?

- A. 8
- B. 13
- C. 65,536
- D. 16,137,285

Answer: C

Section: The Internet

QUESTION 6

Which portion of the TCP/IP protocol suite provides error detection and correction?

- A. TCP
- B. IP
- C. Both
- D. Neither

Answer: A

Section: The Internet

QUESTION 7

How many different networks can be granted a Class A IP address allocation?

- A. 16,137,285
- B. 65,536
- C. 126
- D. 16,382

Answer: C

Section: The Internet

QUESTION 8

Which Internet protocol is used to assign IP addresses dynamically?

- A. TCP
- B. DHCP
- C. HTTP
- D. DNS

Answer: B

Section: The Internet

QUESTION 9

Routers are critical to the operation of the Internet.

- A. True
- B. False

Answer: A

Section: The Internet

QUESTION 10

Which Internet component is responsible for decrementing the TTL field?

- A. Router
- B. Switch
- C. DNS
- D. Packet

Answer: A

Section: The Internet

QUESTION 11

Which of the following is an example of a high-level protocol?

- A. TCP
- B. IP
- C. ICMP
- D. SMTP

Answer: D

Section: The Internet

QUESTION 12

Which of the following protocols makes the Web possible?

- A. HTTPs
- B. Telnet
- C. HTTP
- D. None of the above

Answer: AC

Section: The Internet

QUESTION 13

What is the standard port number for HTTP?

- A. 21

- B. 23
- C. 80
- D. 3389

Answer: C

Section: The Internet

QUESTION 14

Which of the following is an example of an HTML tag?

- A. <HTTP>
- B. <HTML>
- C. <TCP>
- D. <DHCP>

Answer: B

Section: The Internet

QUESTION 15

XML is just another name for HTML.

- A. True
- B. False

Answer: B

Section: The Internet

QUESTION 16

Bots are used by _____ to crawl the World Wide Web.

- A. Routers
- B. Search engines
- C. XML
- D. TCP/IP

Answer: B

Section: The Internet

QUESTION 17

What is the standard port number for POP3?

- A. 110
- B. 21
- C. 23
- D. 80

Answer: A

Section: The Internet

QUESTION 18

What is the standard port number for FTP?

- A. 21
- B. 23
- C. 80
- D. 443

Answer: A

Section: The Internet

QUESTION 19

Your local network connect to the Internet through _____.

- A. backbone
- B. fiber optic
- C. web browser
- D. ISP

Answer: D

Section: The Internet

QUESTION 20

So that packets do not keep bouncing from router to router forever, one of the fields in the IP header is the _____ field.

- A. time to live
- B. time to expire
- C. lifetime
- D. expiration

Answer: A

Section: The Internet

QUESTION 21

File _____ Protocol (or FTP) is a transmission method used to send files across the Internet.

- A. Task
- B. Transfer
- C. Test
- D. Table

Answer: B

Section: The Internet

Exam F

QUESTION 1

Which of the following is `not` a valid DBMS?

- A. SQL Server
- B. C++
- C. Oracle
- D. DB2

Answer: B

Section: Database fundamentals

QUESTION 2

What is the set of possible values for a column?

- A. Domain
- B. Table
- C. SQL
- D. Index

Answer: A

Section: Database fundamentals

QUESTION 3

First normal form says:

- A. No nonkey columns depend on another nonkey column.
- B. Every column that's not part of the primary key is fully dependent on the primary key.
- C. Eliminate repeated fields.
- D. None of the above

Answer: C

Section: Database fundamentals

QUESTION 4

Second normal form says:

- A. No nonkey columns depend on another nonkey column.
- B. Every column that's not part of the primary key is fully dependent on the primary key.
- C. Eliminate repeated fields.
- D. None of the above

Answer: B

Section: Database fundamentals

QUESTION 5

Third normal form says:

- A. No nonkey columns depend on another nonkey column.
- B. Every column that's not part of the primary key is fully dependent on the primary key.
- C. Eliminate repeated fields.
- D. None of the above

Answer: A

Section: Database fundamentals

QUESTION 6

What uniquely identifies a row in a table?

- A. Index
- B. Column
- C. Primary key
- D. Tuple

Answer: C

Section: Database fundamentals

QUESTION 7

Which is `not` a step of the database design process?

- A. Create the tables
- B. Create the relationships
- C. Investigate
- D. Add the data

Answer: D

Section: Database fundamentals

QUESTION 8

The SQL INSERT INTO statement allows adding multiple records in one statement.

- A. True
- B. False

Answer: B

Section: Database fundamentals

QUESTION 9

Which of the following SQL SELECT options is used to organize the data being returned?

- A. ORDER BY
- B. SORT BY
- C. WHERE
- D. None of the above

Answer: A

Section: Database fundamentals

QUESTION 10

With normalization, database design problem(s) need(s) to be solved:

- A. Representation of certain real-world items.
- B. Redundancies in data
- C. Excluded and inconsistent information
- D. All of the others

Answer: D

Section: Database fundamentals

QUESTION 11

_____ is a standard set of rules for database design

- A. SQL
- B. Normalization
- C. Process
- D. None of the others.

Answer: B

Section: Database fundamentals

QUESTION 12

Which of following is a basic elements of a relational database?

- A. Table
- B. Ensure data integrity
- C. Manage access of multiple users to the database
- D. Manage database backup and recovery

Answer: A

Section: Database fundamentals

Exam G

QUESTION 1

What does the subscript 16 indicate in the number $C4A6_{16}$?

- A. An exponent of 16
- B. A base 16 number
- C. A positional value of 16
- D. None of the above

Answer: B

Section: Numbering systems and data representations

QUESTION 2

What is the value of 16^3 ?

- A. 163
- B. 48
- C. 4096
- D. 256

Answer: C

Section: Numbering systems and data representations

QUESTION 3

What is the positional value of the 1 in the binary number 100000?

- A. 64
- B. 32
- C. 16
- D. 8

Answer: B

Section: Numbering systems and data representations

QUESTION 4

What is the largest number of items that can be represented with four hexadecimal digits?

- A. 4096
- B. 40,960
- C. 65,536
- D. None of the above

Answer: C

Section: Numbering systems and data representations

QUESTION 5

What is the positional value of the A in the hexadecimal number BEAD?

- A. 2
- B. 10
- C. 16
- D. 32

Answer: C

Section: Numbering systems and data representations

QUESTION 6

What numeric value in base 10 does the binary number 10000001 represent?

- A. 129
- B. 10,000,001
- C. 65
- D. None of the above

Answer: A

Section: Numbering systems and data representations

QUESTION 7

What is the binary equivalent of the decimal number 543?

- A. 11111011110111
- B. 101100111
- C. 1011010011
- D. 1000011111

Answer: D

Section: Numbering systems and data representations

QUESTION 8

What base 10 value is equivalent to $3C0D_{16}$?

- A. 15,373
- B. 32,767
- C. 68,536
- D. 10,125

Answer: A

Section: Numbering systems and data representations

QUESTION 9

What base 16 value is equivalent to 1234_{10} ?

- A. ABC
- B. 4D2
- C. C34
- D. A65

Answer: B

Section: Numbering systems and data representations

QUESTION 10

What numeric value in hexadecimal is equivalent to the binary number 1101111010101101?

- A. BCAF
- B. BE6C
- C. 6FAD
- D. DEAD

Answer: D

Section: Numbering systems and data representations

QUESTION 11

What is the binary result of adding the binary numbers $0110 + 1101$?

- A. 10011
- B. 1111
- C. 01101101
- D. 101001

Answer: A

Section: Numbering systems and data representations

QUESTION 12

How many unique characters does ASCII allow?

- A. 16
- B. 32
- C. 128
- D. 255

Answer: C

Section: Numbering systems and data representations

QUESTION 13

How many total bits are required to store 24-bit color information for a 1024 x 768 display?

- A. 18,874,368
- B. 786,432
- C. 1024
- D. 24

Answer: A

Section: Numbering systems and data representations

QUESTION 14

What is the ASCII code (in hex) for the lowercase letter z?

- A. 7A
- B. 80
- C. 32
- D. AB

Answer: A

Section: Numbering systems and data representations

QUESTION 15

What is the minimum number of bits required to represent 256 colors?

- A. 4
- B. 8
- C. 16
- D. 32

Answer: B

Section: Numbering systems and data representations

QUESTION 16

A ____ is identified by the number of digits a numbering system has, including zero.

- A. root
- B. discriminant
- C. determinant
- D. base

Answer: D

Section: Numbering systems and data representations

QUESTION 17

What is the minimum number of bits required to present 1024 colors in a pixel ?

- A. 10
- B. 8
- C. 16
- D. 24

Answer: A

Section: Numbering systems and data representations

QUESTION 18

In two's complement, with a 16-bit signed integer, which base 10 value is equivalent to the hexadecimal number FF84

- A. -124
- B. -12
- C. 65412
- D. 65400

Answer: A

Section: Numbering systems and data representations

QUESTION 19

In two's complement, with a 4-bit signed integer, which decimal value is equivalent to the hexadecimal number 5

- A. 5
- B. -1
- C. -5
- D. -3

Answer: A

Section: Numbering systems and data representations

QUESTION 20

The concept of _____ value is common to all modern numbering systems.

- A. positional
- B. radical
- C. deterministic
- D. random

Answer: A

Section: Numbering systems and data representations

Exam H

QUESTION 1

A(n) _____ is a data structure consisting of contiguous memory locations.

- A. Array
- B. Stack
- C. Queue
- D. Tree

Answer: A

Section: Data structures

QUESTION 2

A(n) _____ is used in an array to access each element.

- A. Index
- B. Subscript
- C. Both a and b
- D. None of the above

Answer: C

Section: Data structures

QUESTION 3

A single array can contain information of different data types (integers, characters, decimals, and so on)

- A. True
- B. False

Answer: B

Section: Data structures

QUESTION 4

The statement `char[] aAnswers = new char[5]` declares an array that has memory locations of 1 through 5.

- A. True
- B. False

Answer: B

Section: Data structures

QUESTION 5

The offset is used to specify the distance between memory locations.

- A. True

B. False

Answer: A

Section: Data structures

QUESTION 6

Arrays are a good data structure to use with dynamic data.

A. True

B. False

Answer: B

Section: Data structures

QUESTION 7

A stack uses a LIFO structure.

A. True

B. False

Answer: A

Section: Data structures

QUESTION 8

A queue uses a FIFO structure.

A. True

B. False

Answer: A

Section: Data structures

QUESTION 9

LIFO is an acronym for:

A. List in, first order

B. Last in, first out

C. Last in, first order

D. List in, first out

Answer: B

Section: Data structures

QUESTION 10

FIFO is an acronym for:

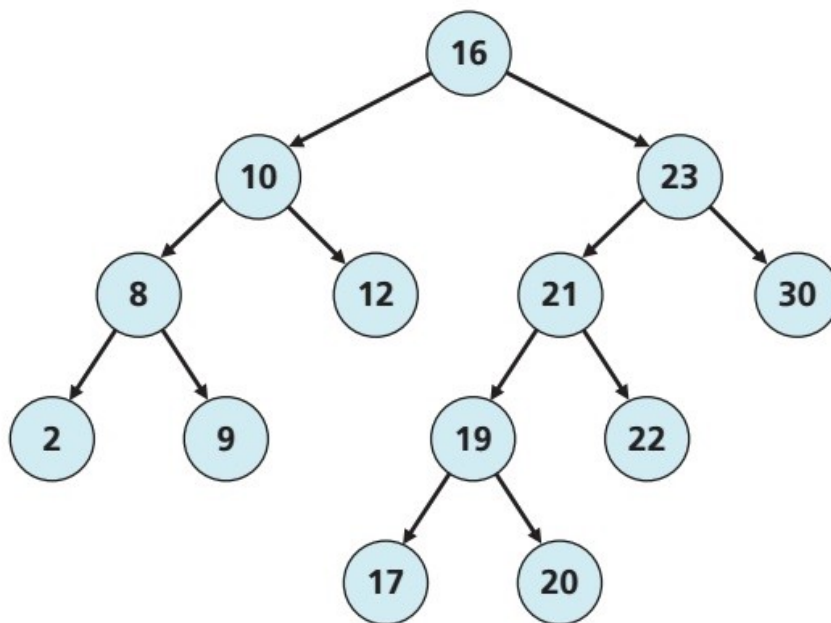
- A. First in, first out
- B. First in, first order
- C. First in, final out
- D. First in, final order

Answer: A

Section: Data structures

QUESTION 11

How many comparisons does it take to find the number of eight (8)?



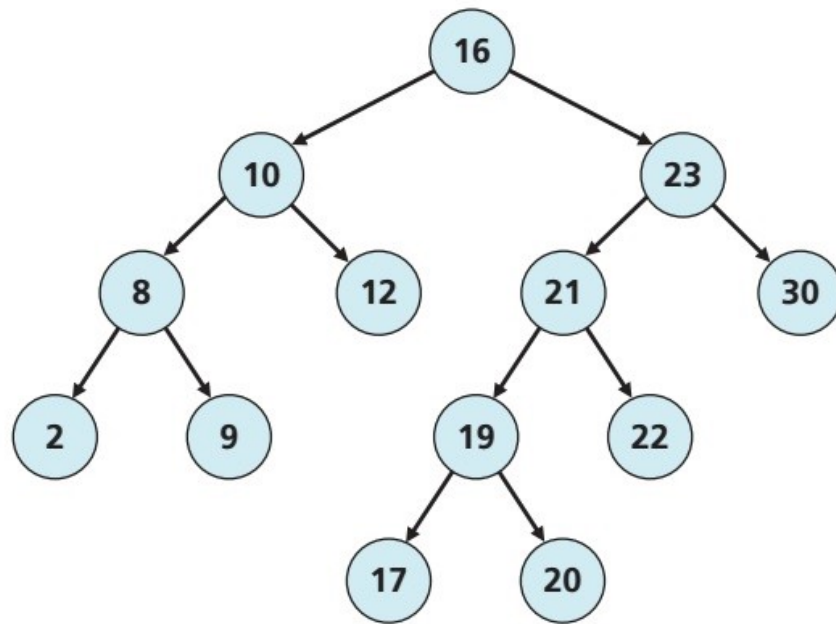
- A. 2
- B. 3
- C. 4
- D. 5

Answer: D

Section: Data structures

QUESTION 12

How many comparisons does it take to find the number of seventeen (17)?



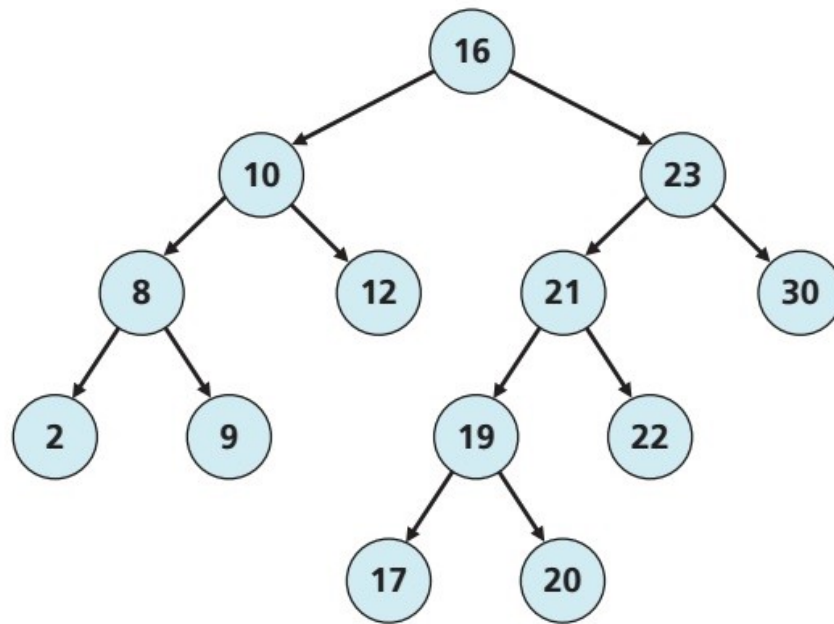
- A. 6
- B. 7
- C. 8
- D. 9

Answer: D

Section: Data structures

QUESTION 13

What is the number of nodes on level 4?



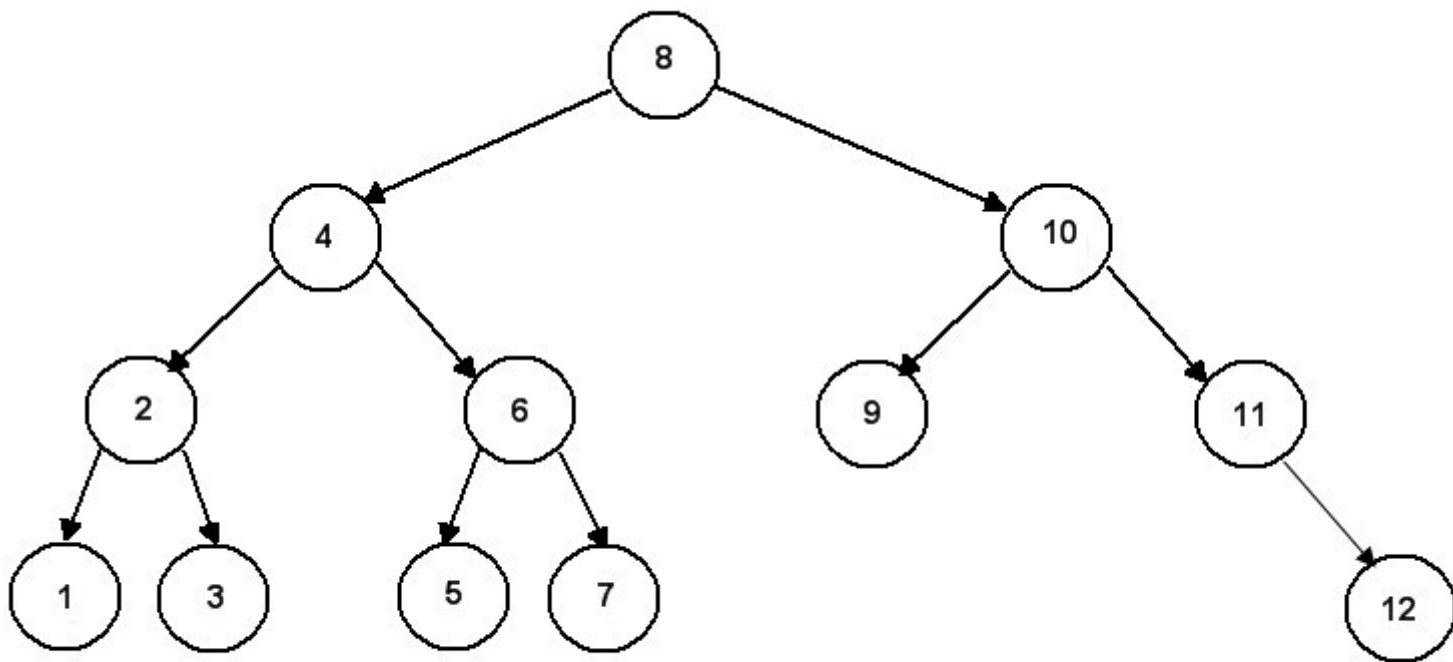
- A. 2
- B. 3
- C. 4
- D. 5

Answer: A

Section: Data structures

QUESTION 14

How many comparisons does it take to find the number of four (4)?



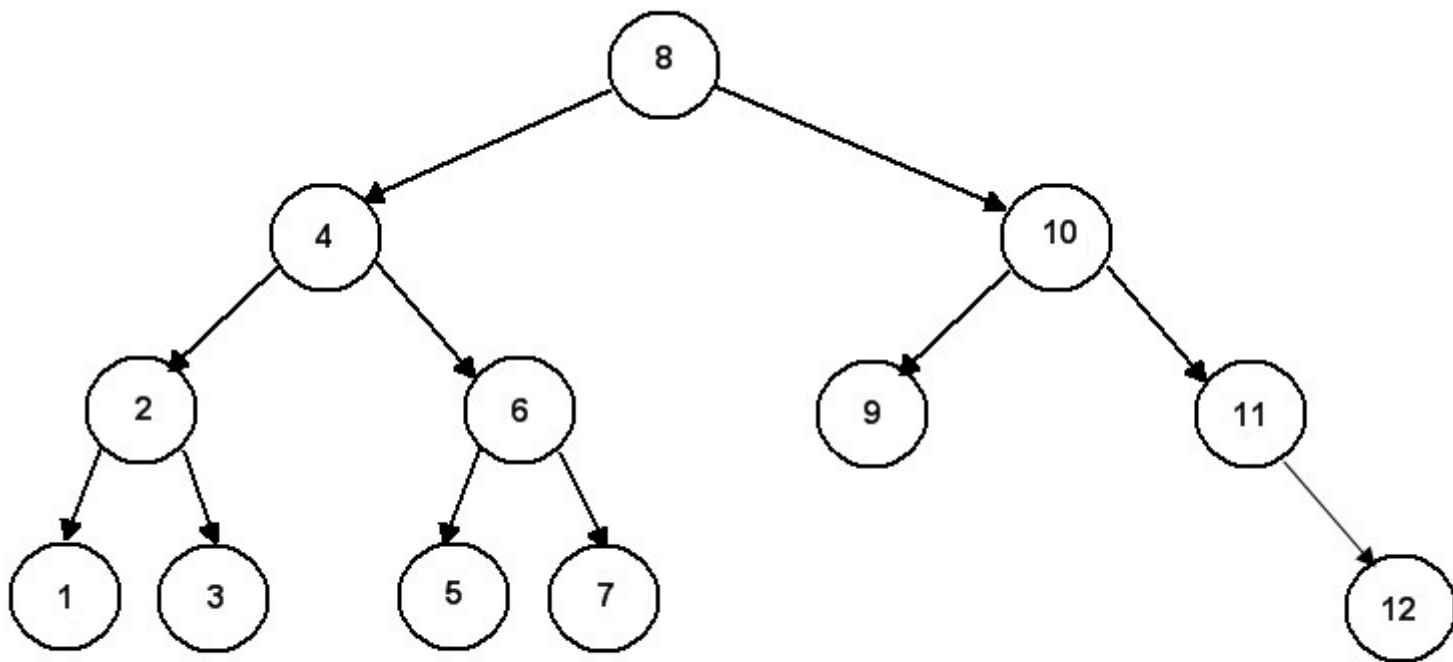
- A. 2
- B. 3
- C. 4
- D. 5

Answer: B

Section: Data structures

QUESTION 15

How many comparisons does it take to find the number of eleven (11)?



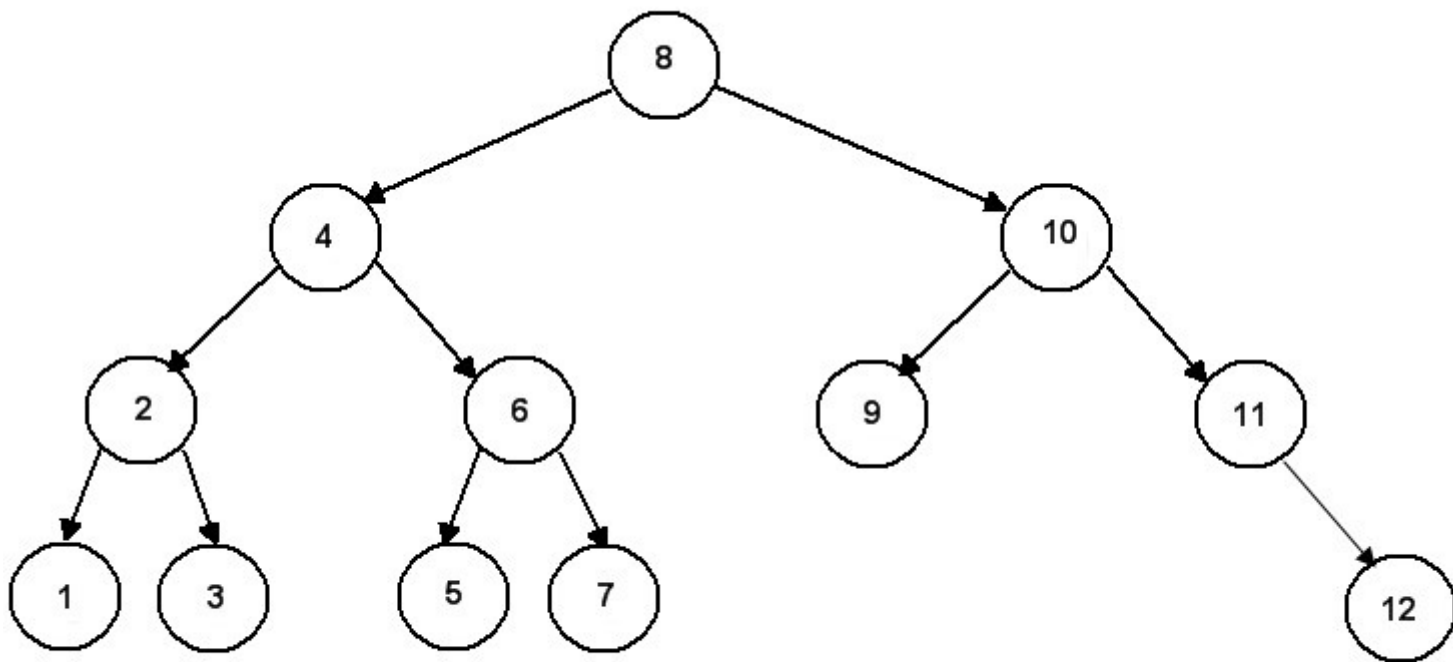
- A. 2
- B. 3
- C. 4
- D. 5

Answer: D

Section: Data structures

QUESTION 16

What level is the number 6 on?



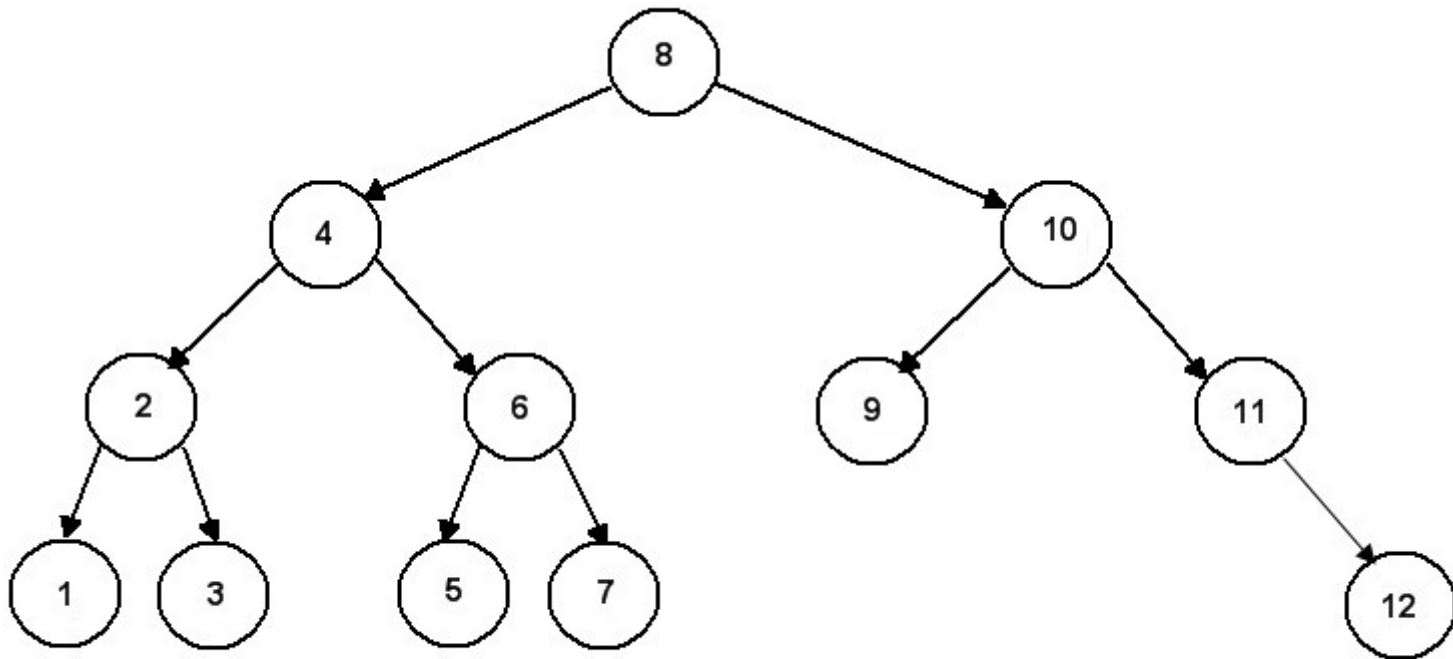
- A. 1
- B. 2
- C. 3
- D. 4

Answer: B

Section: Data structures

QUESTION 17

What is the maximum height?



- A. 1
- B. 2
- C. 3
- D. 4

Answer: C

Section: Data structures

QUESTION 18

Which of the following can be classified as a data structure?

- A. integer
- B. character
- C. array
- D. float

Answer: C

Section: Data structures

QUESTION 19

What type of data can be stored in an array generated by the statement, `int[] aGrades = new int [5]`?

- A. strings
- B. doubles

- C. integers
- D. floats

Answer: C

Section: Data structures

QUESTION 20

With arrays, the _____ is used to specify the distance between memory locations.

- A. offset
- B. width
- C. length
- D. address

Answer: A

Section: Data structures

Exam I

QUESTION 1

DOS stands for:

- A. Demand Open Sources
- B. Disk Operating System
- C. Device Outer Shell
- D. Direct Operating System

Answer: B

Section: Operating systems

QUESTION 2

Multitasking operating systems can service many different _____ at once.

- A. Users
- B. Program tasks
- C. User interfaces
- D. Operating systems

Answer: B

Section: Operating systems

QUESTION 3

Which of the following is not a multitasking OS?

- A. Linux
- B. UNIX
- C. Windows
- D. DOS

Answer: D

Section: Operating systems

QUESTION 4

An OS method of allowing multiple processes to share the CPU is:

- A. Time slicing
- B. Multiuser
- C. I/O
- D. Command line

Answer: A

Section: Operating systems

QUESTION 5

Deadlocks are resolved by:

- A. Interrupts
- B. Time slicing
- C. Memory segments
- D. The OS

Answer: D

Section: Operating systems

QUESTION 6

Graphical interfaces can be added to the Linux OS.

- A. True
- B. False

Answer: A

Section: Operating systems

QUESTION 7

Command-line switches are used to:

- A. Modify the command's operation
- B. Disable the OS
- C. Enable the graphical interface
- D. Remove folders

Answer: A

Section: Operating systems

QUESTION 8

Before a disk can be used, it must be:

- A. Erased and locked
- B. Partitioned and formatted
- C. Filled with folders and files
- D. Time sliced

Answer: B

Section: Operating systems

QUESTION 9

The process of _____ arranges the disk's surface into addressable areas and sets up the disk's basic directory tree structure.

- A. Partitioning
- B. Time slicing
- C. Booting
- D. Formatting

Answer: D

Section: Operating systems

QUESTION 10

The main level of a disk is called the:

- A. Root
- B. Platform
- C. Head
- D. Subdirectory

Answer: A

Section: Operating systems

QUESTION 11

What is the Linux command to list files and folders on a disk?

- A. ls
- B. lsdir
- C. chdir
- D. list

Answer: A

Section: Operating systems

QUESTION 12

Which of the following is the Linux command to rename files?

- A. rename
- B. F11
- C. mv
- D. ls

Answer: C

Section: Operating systems

QUESTION 13

The Linux command for deleting a folder is:

- A. del
- B. rd
- C. rmdir
- D. rm

Answer: D

Section: Operating systems

QUESTION 14

The Linux wildcard _____ can be used to match multiple characters.

- A. ? (question mark)
- B. - (hyphen)
- C. / (forward slash)
- D. * (asterisk)

Answer: D

Section: Operating systems

QUESTION 15

The operating system reallocates the CPU through a program known as a (n) ____ handler.

- A. interrupt
- B. job
- C. control
- D. disruption

Answer: A

Section: Operating systems

QUESTION 16

Which of the following operating systems was designed to accommodate multiple users and multiple tasks?

- A. DOS
- B. CP/M
- C. UNIX
- D. Windows 3.0

Answer: C

Section: Operating systems

QUESTION 17

A situation known as ____ occurs when all active processes are tied up in a circular wait for resources.

- A. synchronization

- B. context switch
- C. safe mode
- D. deadlock

Answer: D

Section: Operating systems

QUESTION 18

All programs and processes running on a computer are stored in ____.

- A. ROM
- B. RAM
- C. NOS
- D. CMOS

Answer: B

Section: Operating systems

QUESTION 19

The Linux command to delete a file is:

- A. del
- B. delfile
- C. rm
- D. filedel

Answer: C

Section: Operating systems

QUESTION 20

Windows Explorer can be used to drag and drop both files and folders.

- A. True
- B. False

Answer: A

Section: Operating systems

QUESTION 21

A situation known as ____ occurs when all active processes are tied up in a circular wait for resources.

- A. synchronization
- B. context switch
- C. safe mode
- D. deadlock

Answer: D

Section: Operating systems

QUESTION 22

A program that is currently executing is called a _____.

- A. code segment
- B. process
- C. JCL
- D. regular routine

Answer: B

Section: Operating systems

QUESTION 23

Which of the following components is responsible for loading operating system kernel at boot time?

- A. BIOS
- B. CMOS
- C. RAM
- D. ROM

Answer: A

Section: Operating systems

QUESTION 24

Which of the following operating systems supports multi-tasking?

- A. MAC OS
- B. DOS
- C. Windows 3.x
- D. None of the others

Answer: A

Section: Operating systems

QUESTION 25

Which operating system is classified as Network Operating System?

- A. Linux
- B. Windows 9x
- C. Android
- D. All of the answers

Answer: A

Section: Operating systems

Exam J

QUESTION 1

Sectors are made up of clusters.

- A. True
- B. False

Answer: B

Section: File structures

QUESTION 2

In FAT, files don't need to be stored in a contiguous block of memory.

- A. True
- B. False

Answer: A

Section: File structures

QUESTION 3

Which of the following FAT formats allows the largest volume size?

- A. FAT12
- B. FAT16
- C. FAT32
- D. All FAT formats have the same maximum volume size.

Answer: C

Section: File structures

QUESTION 4

Which tool is used to reorganize clusters so as to minimize drive head movement?

- A. Disk Defragmenter utility
- B. Sequential Access utility
- C. FAT
- D. NTFS

Answer: A

Section: File structures

QUESTION 5

FAT32 provides the capability to assign access rights to a file and directory.

- A. True

B. False

Answer: B

Section: File structures

QUESTION 6

Which is not an advantage of using NTFS?

- A. Journaling
- B. File encryption
- C. Efficient disk use on small volumes
- D. Security

Answer: C

Section: File structures

QUESTION 7

Which is not a file system used in Linux?

- A. HFS+
- B. XFS
- C. JFS
- D. ext3

Answer: A

Section: File structures

QUESTION 8

You're tracking information on rocket launches. Each launch is assigned a number from 1000 to 100000. There will probably be around 5000 launches, and you're using a hashing algorithm that divides the highest possible number of launches by the expected number of launches. What is the hashing algorithm key in this situation?

- A. 200
- B. 20
- C. 500000
- D. 5000000

Answer: B

Section: File structures

QUESTION 9

You're tracking information on rocket launches. Each launch is assigned a number from 1000 to 100000. There will probably be around 5000 launches, and you're using a hashing algorithm that divides the highest possible number of launches by the expected number of launches. If you have a rocket launch number of 80000, what is the relative record?

- A. 4000
- B. 400
- C. 50
- D. 5000

Answer: A

Section: File structures

QUESTION 10

_____ implies that data is directly read or written anywhere on the disk.

- A. Sequential access
- B. Hashing
- C. Random access
- D. Collision

Answer: C

Section: File structures

QUESTION 11

Which of the following terms describes an organizational unit within a storage medium that stores files, folders, and subdirectories?

- A. Directory
- B. Fragmentation
- C. File compression
- D. Volume

Answer: A

Section: File structures

QUESTION 12

A (n) _____ is the part of the operating system responsible for creating, manipulating, renaming, copying, and removing files to and from storage devices.

- A. cluster
- B. file system
- C. overflow area
- D. hash key

Answer: B

Section: File structures

QUESTION 13

The term _____ implies reading and writing data in order, from the beginning.

- A. random access
- B. sequential access
- C. hashing
- D. collision

Answer: B

Section: File structures

QUESTION 14

Sectors are grouped together to form ____.

- A. file systems
- B. directories
- C. MFTs
- D. clusters

Answer: D

Section: File structures

Exam K

QUESTION 1

_____ is the science and engineering of making intelligent machines.

- A. Nanotechnology
- B. Magnetic storage
- C. Quantum mechanics
- D. Artificial intelligence

Answer: D

Section: The human-computer interface

QUESTION 2

What kind of computers shifts from semiconductor switches and electrical buses to optical switches and fiber optic buses?

- A. Light computer
- B. Quantum computer
- C. Super computer
- D. Biological computer

Answer: A

Section: The human-computer interface

QUESTION 3

Which of the following current tasks cannot be accomplished because of the speed limitations?

- A. Visual recognition
- B. Speech recognition
- C. Computer robotic systems
- D. All of the others.

Answer: D

Section: The human-computer interface

QUESTION 4

_____ is a superset of conventional (Boolean) logic that has been extended to handle the concept of partial truth – truth values between “completely true” and “completely false”.

- A. Fuzzy logic
- B. Neural network
- C. Machine learning
- D. Speech recognition

Answer: A

Section: The human-computer interface

QUESTION 5

The speed limitations are the most important factor that affect on which application?

- A. Speech recognition
- B. Word processor
- C. Spreadsheet application
- D. MS-DOS

Answer: A

Section: The human-computer interface

QUESTION 6

What is Flash Memory?

- A. It is an erasable, rewritable ROM memory.
- B. It is an USB CD drive.
- C. It is memory that built in laptop only.
- D. It is Macromedia Flash storage file.

Answer: A

Section: The human-computer interface

Exam L

QUESTION 1

A ____ is a generic tool that allows you to do basic editing, although the finished document won't have a professional look.

- A. word processor
- B. text editor
- C. spreadsheet
- D. GUI

Answer: B

Section: Software tools for technies

QUESTION 2

Which of the following tools specializes in sophisticated page layout?

- A. text editor
- B. spreadsheet
- C. desktop publisher
- D. project scheduler

Answer: C

Section: Software tools for technies

QUESTION 3

A ____ tool is the most logical choice for the development of a slide show.

- A. presentation
- B. spreadsheet
- C. word processing
- D. scheduling

Answer: A

Section: Software tools for technies

QUESTION 4

A grid-like document that facilitates arithmetic manipulation and presentation is called a ____.

- A. resume
- B. memo
- C. fax
- D. spreadsheet

Answer: D

Section: Software tools for technies

QUESTION 5

_____ in the form of logos, cartoons, and maps play a large part in the world of information sharing.

- A. Databases
- B. Protocols
- C. Texts
- D. Graphics

Answer: D

Section: Software tools for technies

QUESTION 6

Which of the following e-mail software brands is widely used in the UNIX and Linux world?

- A. Maple
- B. Redwood
- C. Pine
- D. Oak

Answer: C

Section: Software tools for technies

QUESTION 7

Data _____ can be used to reduce the size of a file and speed the transmission of the file through e-mail.

- A. compression
- B. collaboration
- C. design
- D. inlining

Answer: A

Section: Software tools for technies

QUESTION 8

The _____ extension is one of the more popular compression formats in the world of Windows.

- A. .car
- B. .bat
- C. .zip
- D. .exe

Answer: C

Section: Software tools for technies

QUESTION 9

Which of the following tools has the primary focus of enhancing a Web site?

- A. Microsoft PowerPoint
- B. Microsoft Project
- C. Macromedia Flash MX
- D. Borland Delphi

Answer: C

Section: Software tools for technies

Exam M

QUESTION 1

End users need to be told what they want and how the program should work.

- A. True
- B. False

Answer: B

Section: Software engineering

QUESTION 2

Which is not included as a task of software engineering?

- A. Communicating with clients in meetings
- B. Designing screens
- C. Writing the application
- D. Creating a design document
- E. Software developers

Answer: E

Section: Software engineering

QUESTION 3

A design document is used as:

- A. A way to bill the client more
- B. A blueprint that shows an application's functionality
- C. A replacement for pseudocode when writing a program
- D. None of the above

Answer: B

Section: Software engineering

QUESTION 4

Which is not part of the SDLC?

- A. Project feasibility
- B. Software design
- C. Software implementation
- D. Software proposal to client

Answer: D

Section: Software engineering

QUESTION 5

Which is not a valid software development model?

- A. Waterfall
- B. Spiral
- C. Degradation
- D. Agile

Answer: C

Section: Software engineering

QUESTION 6

UML was designed to:

- A. Assist developers in creating visual models of the application's functionality
- B. Assist developers in designing screens and reports
- C. Incorporate object-oriented design into application development
- D. Replace the outdated notion of pseudocode

Answer: A

Section: Software engineering

QUESTION 7

The best way to write a good program is to have an initial meeting with the end user to find out the requirements for the project, go back to your office and write the program, and then deliver the finished product for installation.

- A. True
- B. False

Answer: B

Section: Software engineering

QUESTION 8

The document responsible for describing the type of data stored in the database is called the:

- A. Design document
- B. Data dictionary
- C. UML diagram
- D. SDLC

Answer: B

Section: Software engineering

QUESTION 9

Including end users during the entire design process is recommended. In fact, you can even let them help design screens and reports.

- A. True
- B. False

Answer: A

Section: Software engineering

QUESTION 10

A ——— is used as a visual model for describing a program's logical steps.

- A. Flowchart
- B. Class diagram
- C. Use case diagram
- D. Design document

Answer: A

Section: Software engineering

QUESTION 11

A ——— is a standard or typical example of how something might work, but without all the built-in functionality.

- A. Flowchart
- B. Prototype
- C. Design document
- D. Data dictionary

Answer: B

Section: Software engineering

QUESTION 12

Which should not be included in the design document?

- A. Project objectives and requirements
- B. Cost analysis
- C. Feasibility study
- D. None of the above

Answer: D

Section: Software engineering

QUESTION 13

Scope creep is good for a project because it's one of the software development life cycles.

- A. True
- B. False

Answer: B

Section: Software engineering

QUESTION 14

If end users or testers find a bug in the application, you should find out why they insist on breaking the program and get them some training so that they will stop making it crash.

- A. True
- B. False

Answer: B

Section: Software engineering

QUESTION 15

The tester's role is not as critical as other team roles and should be the first role eliminated if the project is behind the scheduled completion date.

- A. True
- B. False

Answer: B

Section: Software engineering

QUESTION 16

_____ is the process of producing software applications.

- A. Database administration
- B. Software engineering
- C. UML
- D. SDLC

Answer: B

Section: Software engineering

QUESTION 17

Testing software to ensure that it meets the software specifications is called _____.

- A. scope creep
- B. rapid prototype
- C. software validation
- D. incremental development

Answer: C

Section: Software engineering

Exam N

QUESTION 1

Which is not an example of a high-level programming language?

- A. Ada
- B. Boolean
- C. C++
- D. Java

Answer: B

Section: Programming I

QUESTION 2

Which of the following converts source code into a computer language and results in an executable file?

- A. Compiler
- B. Interpreter
- C. IDE
- D. Algorithm

Answer: A

Section: Programming I

QUESTION 3

Which of the following translates a program's statements, one by one, into a language the computer can understand?

- A. Compiler
- B. Interpreter
- C. IDE
- D. Algorithm

Answer: B

Section: Programming I

QUESTION 4

Pseudocode should be written after the source code to ensure that the program was written correctly.

- A. True
- B. False

Answer: B

Section: Programming I

QUESTION 5

Which is not a type of programming language?

- A. Low-level
- B. Assembler
- C. High-level
- D. Machine

Answer: B

Section: Programming I

QUESTION 6

What is a name used to identify a specific location and value in memory?

- A. Variable
- B. Operator
- C. Control structure
- D. Object

Answer: A

Section: Programming I

QUESTION 7

Which is not a type of control structure?

- A. Invocation
- B. Top down
- C. Algorithm
- D. Repetition

Answer: C

Section: Programming I

QUESTION 8

A ____ is a collection of statements or steps that solve a problem and need to be converted into a language that the computer understands in order to perform one or more tasks.

- A. algorithm
- B. identifier
- C. program
- D. parameter

Answer: C

Section: Programming I

QUESTION 9

A (n) ____ is a logically ordered set of statements used to solve a problem.

- A. identifier
- B. algorithm
- C. parameter
- D. variable

Answer: B

Section: Programming I

QUESTION 10

The ____ is the lowest-level language that is directly understood by a computer.

- A. object oriented language
- B. constructor
- C. assembly language
- D. machine language

Answer: D

Section: Programming I

QUESTION 11

A _____ is often used to describe how to solve a problem.

- A. pseudo-code
- B. program
- C. routine
- D. Hungarian notation

Answer: A

Section: Programming I

QUESTION 12

A/An ____ is a special class function/method used for creating or instantiating an object.

- A. event handler
- B. constructor
- C. expression
- D. function

Answer: B

Section: Programming I

QUESTION 13

A ____ is a template or mold used for defining new object types along with their properties and behavior.

- A. compiler
- B. event
- C. method
- D. class

Answer: D

Section: Programming I

QUESTION 14

_____ is a style of programming that involves representing items, things, and people as objects rather than basing the logic around actions.

- A. Assembly programming
- B. Variable initialization
- C. Polymorphism
- D. Object-oriented programming

Answer: D

Section: Programming I

QUESTION 15

Before source code can be compiled, it has to be _____

- A. parsed
- B. viewed in a command prompt
- C. capitalized
- D. saved in a separate file

Answer: A

Section: Programming I

QUESTION 16

What is object-oriented programming?

- A. A type of programming involving data types representing data structures
- B. A type of programming using only numbers
- C. A type of programming not in use anymore
- D. A type of programming involving a structured method of creating programs

Answer: A

Section: Programming I

Exam O

QUESTION 1

Using the following statements, what value is displayed?

```
#include <cstdlib>
#include <iostream>

using namespace std;
int main()
{
    int iCount;
    iCount = 0;
    cout << "iCount has a value of " << ++iCount;
}
```

- A. 0
- B. 1
- C. 2
- D. Unknown

Answer: B

Section: Programming II

QUESTION 2

Using the following statements, what value is displayed?

```
#include <cstdlib>
#include <iostream>

using namespace std;
int main()
{
    int iCount;
    iCount = 0;
    cout << "iCount has a value of " << iCount++;
}
```

- A. 0
- B. 1
- C. 2
- D. Unknown

Answer: A

Section: Programming II

QUESTION 3

In Java, which punctuation mark tells the computer that the end of the statement has been reached?

- A. period
- B. colon

- C. semicolon
- D. comma

Answer: C

Section: Programming II

QUESTION 4

In the context of the Java programming language, the “_____” keyword tells the computer that a new array is being created.

- A. invoke
- B. allocate
- C. new
- D. make

Answer: C

Section: Programming II

QUESTION 5

What is the purpose of a class constructor?

- A. To instantiate an object
- B. To pass values to methods for a class
- C. To make objects initially have certain values when they are instantiated
- D. To extend a class

Answer: C

Section: Programming II

QUESTION 6

Which of the following snippets of code can be used to instantiate an object?

- A. AClass.create();
- B. Class A = new AClass();
- C. AClass.newClass()
- D. AClass.instantiate();

Answer: B

Section: Programming II

QUESTION 7

Which Java exception should be used to handle input/output errors?

- A. NoSuchMethodException
- B. InputException

- C. ArithmeticException
- D. IOException

Answer: D

Section: Programming II

QUESTION 8

Which keyword would you use if you wanted a class to use an interface?

- A. new
- B. implements
- C. extends
- D. main()

Answer: B

Section: Programming II

QUESTION 9

What will be the output of this code?

```
String aString = "Crayons are great!";  
System.out.print(aString.charAt(8))
```

- A. a
- B. n
- C. s
- D. space

Answer: A

Section: Programming II

QUESTION 10

What is it called when an instance of a class is also an instance of its superclass?

- A. Inheritance
- B. Encapsulation
- C. Instantiation
- D. Polymorphism

Answer: D

Section: Programming II

QUESTION 11

What kind of data will this variable store - char fName;

- A. Text string

- B. A single character
- C. Numeric
- D. True/False value

Answer: B

Section: Programming II

QUESTION 12

Which of the following rules must be followed when naming variables ?

- A. No spaces or symbols in variable names
- B. Variable names cannot start with numbers
- C. Variable names can only contain letters, numbers, and the underscore (_) symbol
- D. All of the above

Answer: D

Section: Programming II

QUESTION 13

Which loop type would you use to repeat a task a set number of times?

- A. For
- B. While
- C. Do - While
- D. Switch

Answer: A

Section: Programming II

QUESTION 14

Java and Javascript are the same thing

- A. True
- B. False

Answer: B

Section: Programming II