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Score: 94 / 95 (98.95%)

2017 CS1 Mid-Term Exam

TRUE/FALSE

T 1. A char variable can be used like an small int.

Points: 1 / 1

T 2. The % is called the modulus operator.

Points: 1 / 1

T 3. The modulus operator (%) results in the remainder of integer division.

Points: 1 / 1

F 4. In the Java language, modulus can only be applied to integer types.

Points: 1 / 1

T 5. The relational or logical expression will result in a boolean value.

Points: 1 / 1

MULTIPLE CHOICE

C 6. The _____ was the first computing tool, made approximately 5,000 years ago in China.

a. random access memory
b. brain
c. abacus
d. microprocessor

Points: 1 / 1

A 7. 1 kilobyte =

a. about 1000 bytes
b. 1 byte
c. read only memory
d. about 1,000,000 bytes

Points: 1 / 1

C 8. ROM stands for _____.

a. 1000 bytes
b. 1 byte
c. read only memory
d. 1,000,000 bytes

Points: 1 / 1

C 9. A computer is built to carry out instructions that are written in a low-level language called _____.

a. simple language
b. complex language
c. machine language
d. motherboard language

Points: 1 / 1

D 10. A computer can execute programs written in high-level programming languages, if they are first _____ into machine language.

a. changed
b. shown
c. listed
d. compiled

Points: 1 / 1

A 11. When the CPU executes a program, that program is stored in the computer's _____ _____ (also called the _____).

a. main memory, RAM
b. hard drive, disk
c. motherboard, hard drive
d. ROM, main memory

Points: 1 / 1

B 12. The computer's main memory consists of a sequence of memory _____.

a. values
b. locations
c. numbers
d. programs

Points: 1 / 1

B 13. Each memory location within the computer is associated with a unique sequence number called a(n) _____.

a. instruction
b. address
c. name
d. butterfly

Points: 1 / 1

A 14. The process of fetching an instruction, executing it, fetching another instruction, executing it, and so on forever… is called the _____.

a. fetch-and-execute cycle
c. machine language process
b. receive-and-show cycle
d. Jessica-Martin-timeline

Points: 1 / 1

C 15. The CPU contains small memory units capable of holding a single number or machine language instruction, called internal _____.

a. organs
c. registers
b. speakers
d. documents

Points: 1 / 1

B 16. Machine language instructions are expressed as _____.

a. words
c. codes
b. binary numbers
d. 4s

Points: 1 / 1

A 17. A binary number is made up of just two possible digits, _____and _____.

a. 0, 1
c. 0, 16
b. 2, 4
d. 8, 32

Points: 1 / 1

C 18. When a machine language instruction is loaded into the CPU, certain _____ are turned on or off in the pattern that encodes that particular instruction.

a. buttons
c. switches
b. variables
d. wired

Points: 1 / 1

B 19. The CPU spends almost all of its time _____ from memory and executing them.

a. thinking
c. surfing the web
b. fetching instructions
d. processing

Points: 1 / 1

B 20. A computer system may include a device such as a _____ for user input.

a. monitor
c. hard drive
b. keyboard
d. text document

Points: 1 / 1

A 21. A computer system includes devices such as a _____ which can be used to display the computer's output.

a. monitor
c. hard drive
b. keyboard
d. network interface

Points: 1 / 1

D 22. A computer system may include a _____ that allows the computer to communicate with other computers that are connected to it on a network.

a. hard drive
c. keyboard
b. mouse
d. network interface

Points: 1 / 1

A 23. A _____ is a set of wires that carry various sorts of information between the devices connected to those wires.

a. bus
c. cable
b. car
d. boat

Points: 1 / 1

C 24. Events happen "_____," that is, at unpredictable times.

a. predictably
c. asynchronously
b. automatically
d. mechanically

Points: 1 / 1

C 25. All modern computers use _____ to perform several tasks at once.

a. multiprocessors
c. multitasking
b. memory
d. tweeting

Points: 1 / 1

A 26. The _____ is the basic, essential software without which a computer would not be able to function.

a. operating system
c. word processor
b. electrical system
d. web browser

Points: 1 / 1

B 27. _____ consists of very simple instructions that can be executed directly by the CPU of a computer.

a. Program language
c. English
b. Machine language
d. Artificial intelligence

Points: 1 / 1

A 28. Almost all programs are written in _____ programming languages.

a. high-level
c. easy
b. complex
d. low-level

Points: 1 / 1

C 29. The designers of Java chose to use a combination of _____.

a. computation and interpretation
c. compilation and interpretation
b. documentation and reiteration
d. compilation and indiscretion

Points: 1 / 1

A 30. This so-called "virtual" computer is known as the _____, or _____.

a. Java Virtual Machine, JVM
c. Programming Language, PL
b. Virtual Reality System, VRS
d. Cyberspace System, CS

Points: 1 / 1

C 31. The machine language for the Java Virtual Machine is called _____.

a. nibblecode
c. bytecode
b. code
d. programs

Points: 1 / 1

B 32. A different Java bytecode interpreter is needed for each type of _____, but once a computer has a Java bytecode interpreter, it can run any Java bytecode _____.

a. program, process
c. student, problem
b. computer, program
d. country, marathon

Points: 1 / 1

B 33. It is the combination of Java and Java bytecode that is _____, _____, and _____.

a. good, bad, ugly
b. platform-independent, secure, network-compatible
c. platform-dependent, secure, network-incompatible
d. redundant, insecure, obsolete

Points: 1 / 1

C 34. Compiled bytecode programs are executed by the standard _____.

a. web browser
c. JVM
b. programmer
d. computer

Points: 1 / 1

A 35. There are also "_____" for getting data from the user or from files on the computer's disks and "_____" for sending data in the other direction.

a. input commands, output commands
c. output commands, input commands
b. camera, cable
d. keyboard, monitor

Points: 1 / 1

A 36. There are two basic aspects of programming: _____ and _____.

a. data, instructions
c. control structures, subroutines
b. variables, types
d. code, more code

Points: 1 / 1

C 37. To work with instructions, you need to understand _____ and _____.

a. data, instructions
c. control structures, subroutines
b. variables, types
d. code, more code

Points: 1 / 1

D 38. In Java and in many other programming languages, a variable has a _____ that indicates what sort of data it can hold.

a. size
c. value
b. box
d. type

Points: 1 / 1

B 39. _____ are special instructions that can change the flow of control.

a. flow structures
c. rules
b. control structures
d. traffic laws

Points: 1 / 1

B 40. A subroutine name can then be used as a _____ for the whole set of instructions.

a. summary
c. acronym
b. substitute
d. abbreviation

Points: 1 / 1

A 41. Organizing your program into subroutines helps you _____ your thinking and your program design effort.

a. organize
c. waste
b. confuse
d. destroy

Points: 1 / 1

D 42. The discipline called _____ is concerned with the construction of correct, working, well-written programs.

a. coding
c. mechanical engineering
b. hacking
d. software engineering

Points: 1 / 1

C 43. The details of what goes on inside a program module are not important to the system as a whole, as long as it fulfills its assigned role correctly. This is called _____.

a. hide and seeking
c. information hiding
b. data processing
d. fetching

Points: 1 / 1

A 44. Today, most people interact with computers using a _____, or GUI.

a. Graphic User Interface
c. Graphic User Interpreter
b. Globally Useful Industry
d. Gargantuan Undulating Intelligence

Points: 1 / 1

C 45. Another set of GUI components included since Java version 1.2, is known as _____.

a. dance
c. swing
b. stuff
d. Super Windowing Toolkit

Points: 1 / 1

A 46. When a user interacts with the GUI components, an "_____" is generated.

a. event
c. attack
b. applet
d. elephant

Points: 1 / 1

D 47. Today, millions of computers throughout the world are connected to a single huge network called the _____.

a. Cable
c. Network
b. Table
d. Internet

Points: 1 / 1

A 48. The two most important basic Internet protocols are referred to collectively as _____and provide a foundation for communication.

a. TCP/IP
c. DoD
b. TCBY
d. TTBIP

Points: 1 / 1

B 49. All communication over the Internet is sent in the form of _____.

a. boxes
c. envelopes
b. packets
d. cell phones

Points: 1 / 1

B 50. Behind the scenes, the web browser uses a protocol called HTTP (_____ _____) to send each page request and to receive the response from the web server.

a. Human Telephone and Telegraph Protocol

b. Hyper Text Transfer Protocol

c. Hyper Space Transport Protocol

d. The Web Protocol

Points: 1 / 1

C 51. _____ is a system for large scale data processing, written in Java, used by Yahoo and _____.

a. Don't Know, Bookface

b. Google, CNN

c. Hadoop, Facebook

d. Hadoop, LVISD

Points: 1 / 1

B 52. Java is the primary development language for _____ phones such as the Verizon Droid.

a. Blueberries and Robot-based

b. Blackberries and Android-based

c. Strawberries and Cyborg-based

d. Snozberries and Wonka-based

Points: 1 / 1

A 53. Mobile devices such as Smart-phones use a version of Java called Java ME ("_____ ").

a. Mobile Edition

b. Mega-Electronic

c. Millennium Edition

d. Modern Edition

Points: 1 / 1

D 54. The use of other languages with the JVM has become important enough that several new features were added to the JVM in Java Version _____ specifically to add better support for some of those languages.

a. 4
b. 1.2
c. 9
d. 7

Points: 1 / 1

B 55. The statement x = x + 14; could also be written as:

a. x * 14 = x;
b. x += 14;
c. x *= 14;
d. x * x = 14;

Points: 1 / 1

C 56. What is the type of the literal 1922.555F?

a. char
b. int
c. float
d. double

Points: 1 / 1

C 57. The boolean (bool) type gets its name from a mathemetician named,

a. Rick Perry.
b. Stewart White.
c. George Boole.
d. Booley Boolenov.

Points: 1 / 1

C 58. The general form for initializing a variable is:

a. x = x + 1;
b. var < 5;
c. type var = value;
d. cout << “initializing a variable”;

Points: 1 / 1

A 59. Which of the following are examples of reserved words?

a. **public**, **void** and **static**
b. **System**, **out** and **println**
c. **System**, **public** and **void**
d. **print**, **println** and **args**

Points: 1 / 1

D 60. Java allocates _____ bytes of memory for its largest real number data type.

a. two
b. four
c. six
d. eight
e. twelve

Points: 1 / 1

A 61. The statement **num += 10** is the same as the statement

a. **num = num + 10;**
b. **num = 10**
c. **num + 10 = num;**
d. A and C

Points: 1 / 1

B 62. Which of the following are the binary operator shortcuts?

a. **=+ =- =* =/ =%**
b. **+= -= *= /= %=**
c. **+ - * / %**
d. **+ - * /**

Points: 1 / 1

C 63. What is the output of the program segment below?

```
int var1 = 100;
String var2 = "100";
System.out.println(var1 + var1);
System.out.println(var2 + var2);
```

a. 200
   200
b. 100100
   100100
c. 200
   100100
d. Error message

Points: 1 / 1

A 64. Assume the variables **a**, **b**, and **q** are defined as **int**.
Which Java statement below represents the mathematical expression **q = 6(a - b)?**

a. **q = 6 * (a - b)**
b. **q = 6 * (a - b);**
c. **q = 6a - 6b;**
d. None of the above

Points: 0 / 1

B 65. What is the output of the program segment below?

```
int num1 = 500;
int num2 = 200;
int num3 = 300;
double average = (num1 + num2 + num3) / 3;
System.out.println(average);
```

a. 800.0
b. 333.0
c. 333.333333333333335
d. Error message

Points: 1 / 1

B 66. Which real number data type is the least prescise?

a. double
b. float
c. long
d. real

Points: 1 / 1

A 67. The action subroutines in a Java class are called

a. methods.
b. procedures.
c. functions.
d. subroutines.

Points: 1 / 1

D 68. Which of the following is a **Math** class feature that does not use any parameters or arguments?

a. **PI**
b. **E**
c. **final**
d. Both A and B

Points: 1 / 1

D 69. What is the value of **result** in the following statement?

```
int result = (int) Math.pow(5,2);
```

a. 2
b. 5
c. 10
d. 25
e. 52

Points: 1 / 1

C 70. What is the value of **result** in the following statement?

```
int result = Math.round(9.000001);
```

a. 10
b. 9.000001
c. 9
d. Error message

Points: 1 / 1

A 71. What is the value of **result** in the following statement?

```
int result = (int) Math.sqrt(256);
```

a. 16
b. 4
c. 2
d. 1
e. Error message

Points: 1 / 1

B 72. What is the index of the "L" in the *String* "President Abraham Lincoln"?

a. 12
b. 18
c. 17
d. 0
e. None of these

Points: 1 / 1

B 73. What is output by the following code?

```
String s = "Beaver Cleaver";
System.out.println(s.toUpperCase( ));
```

a. beaver cleaver
b. BEAVER CLEAVER
c. b
d. eEAVER cLEAVER
e. None of these

Points: 1 / 1

C 74. Is comparing **String** values different from comparing simple data type values?

a. No, it is the same. In both cases you can use the == operator.
b. No, it is the same. In both cases you can use the == operator or the **equals** method.
c. Yes, it is different. Simple types use the == operator and strings use the **equals** method.
d. Yes, it is different. Simple types use the **equals** method and strings use the **==** operator.

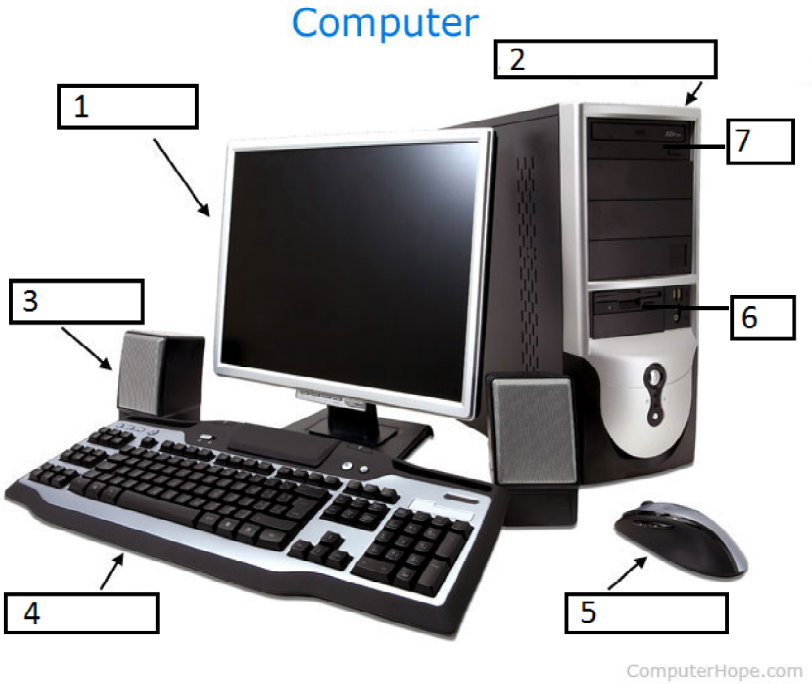
Points: 1 / 1

B 75. What is the operator used to indicate Boolean **AND**?

a. ||
b. &&
c. &
d. &|
e. ^

Points: 1 / 1

MATCHING



a. monitor
b. printer
c. keyboard
d. CD-ROM drive
e. floppy drive
f. mouse
g. speaker
h. CPU

A 76. Identify number 1 on the computer hardware diagram.

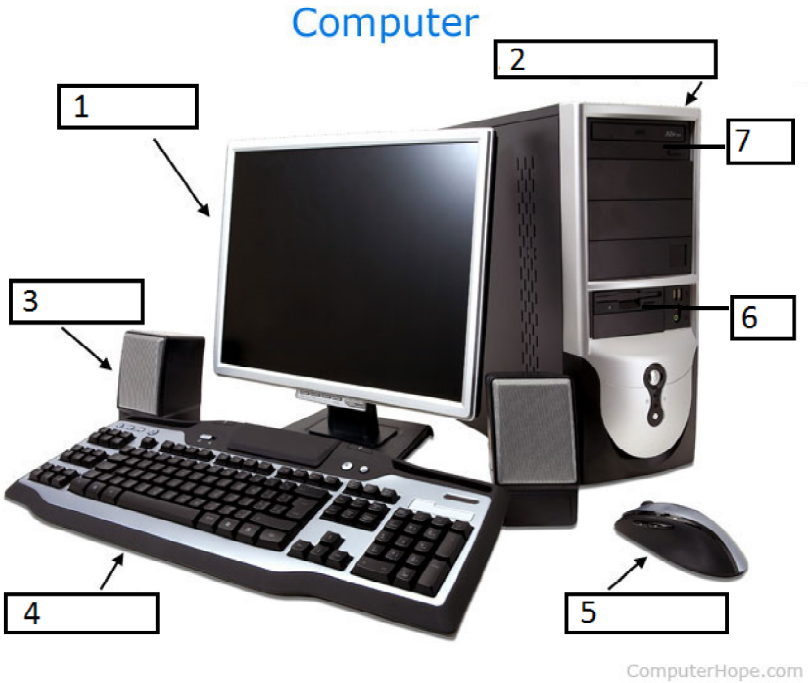
Points: 1 / 1

C 77. Identify number 4 on the computer hardware diagram.

Points: 1 / 1

D 78. Identify number 7 on the computer hardware diagram.

Points: 1 / 1



a. input
b. output
c. both input and output
d. process

B 79. What does item 1 do for the computer and user.

Points: 1 / 1

A 80. What does item 5 do for the computer and user.

Points: 1 / 1

C 81. What does item 7 do for the computer and user.

Points: 1 / 1

Is this one of the eight basic (primitive) Java data types?
a. yes, it is a basic data type

b. no, it is not a basic data type

A 82. float

Points: 1 / 1

A 83. double

Points: 1 / 1

A 84. short

Points: 1 / 1

B 85. void

Points: 1 / 1

B 86. check

Points: 1 / 1

What kind of operator is this?
a. Boolean Operator
b. Relational Operator
c. Arithmetic Operator
d. Assignment Operator
e. Conditional Operator

D 87. =

Points: 1 / 1

C 88. /

Points: 1 / 1

A 89. &&

Points: 1 / 1

A 90. ||

Points: 1 / 1

B 91. = =

Points: 1 / 1

B 92. !=

Points: 1 / 1

Match the escape sequence code with the correct meaning.
a. \b
b. \f
c. \n
d. \r

A 93. Backspace

Points: 1 / 1

Match the escape sequence code with the correct meaning.
a. \xN
b. \’
c. \u
d. \\

B 94. Single quote character

Points: 1 / 1

C 95. Unicode character code

Points: 1 / 1