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| **Computer Science 1** | **Exercises 01.01-08** | **Date:** |
| **Name: KEY** | | **Period:** |

1. According to the author, what is one of the most important elements of learning in a classroom?

*The student-teacher relationship*

2. What is the “exposure equation”?

*Bewilderment + Exposure = Obvious*

3. Is *Computer Science* the same thing as *Computer Literacy* or *Computer Applications*? *No*

4. *Computer Science* is essentially \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

*computer programming*

5. In what 3 areas are computers superior to human beings?

*• Computers are faster*

*• Computers are more accurate*

*• Computers do not forget*

6. List 2 *human errors* that can cause a computer to give erroneous information.

*• Instructions given by a human being to a computer are faulty*

*• Sloppy data entry*

7. Do computers have intelligence or creativity? *No*

8. Morse code is based on a series of \_\_\_\_\_\_\_ and \_\_\_\_\_\_\_ signals.

*short long*

9. The earliest electronic computers achieved electronic memory by using \_\_\_\_\_\_\_ \_\_\_\_\_\_\_.

*Vacuum Tubes*

10. In Computer Science, \_\_\_\_ means *on* and \_\_\_\_ means *off*.

*1 0*

11. What was the first electronic general-purpose computer?

*The ENIAC*

12. What is a *bit*?

*A binary digit, either 1 or 0*

13. How many *bits* are in a *byte*? *8*

14. How many bytes does *ASCII* use to store a character? *1*

15. How many bytes does *Unicode* use to store a character?

*Between 1 and 4*

16. What is the most popular encoding system for the Unicode Character Set?

*UTF-8*

17. The number system that we use is called the \_\_\_\_\_\_\_ number system or \_\_\_\_\_\_\_.

*decimal base-10*

18. The number system used by computers is the \_\_\_\_\_\_\_ number system or \_\_\_\_\_\_\_.

*binary base-2*

19. What is the ASCII code for capital letter **D**? *68*

20. When entering a password, you might be reminded that passwords are *case-sensitive*.

What does that mean?

*It matters whether you type capital or lowercase letters.*

21. Transistors have certain key advantages over vacuum tubes. List 2 of them.

*First, they are much smaller.*

*Second, transistors do not get hot and do not burn out.*

22. Transistors eventually lead to the invention of \_\_\_\_\_\_\_ \_\_\_\_\_\_\_ and later \_\_\_\_\_\_\_.

*integrated circuits microchips*

23. Today’s microchips actually hold \_\_\_\_\_\_\_ of transistors.

*billions*

24. What are microchips made out of?

*silicon*

25. What is the main board in a computer, with all the primary computer components, called?

*motherboard*

26. What kind of chip stores permanent information for the computer? *ROM*

27. What kind of chip stores temporary information for the computer? *RAM*

28. Which stores more information, gigabytes or terabytes?

*terabytes*

29. The CPU is essentially the \_\_\_\_\_\_\_ of the computer.

*brains*

30. What type of device measures in a *continuous* fashion? *analog*

31. What type of information allows you to make a precise copy of the original? *digital*

32. What does computer *hardware* refer to?

*Computer hardware refers to any physical piece of computer equipment.*

33. What does *application software* refer to?

*Applications software refers to the instructions that the computer requires to do something specific for you.*

34. What does *system software* refer to?

*System software refers to the instructions that the computer requires to operate properly.*