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| **APCS Exposure Java** | **Exercises 01.01-05** | **Date:** |
| **Name:** | | **Period:** |

1. In what 3 ways are computers superior to human beings?

2. What is really the cause of most “computer errors”?

3. If you have important information saved on a disk, what should you do to protect against the possibility of losing this information?

4. What is *Morse Code* based on?

5. Finish this sentence. *The secret of Morse code is the fact that electricity can be…*

6. How many different combinations of “on” and “off” are possible with 8 “lightbulbs”?

7. What number system do you use?

8. What number system does the computer use?

9. What does ASCII stand for?

10. What ASCII range is used for the “standard set of characters”?

11. What ASCII range is used for the “extended set of characters”?

12. What is the ASCII code for a capital **A**?

13. What is “bit” an abbreviation for?

14. How many bits are in a byte?

15. Java does not use ASCII. What does it use instead?

16. Refer to your answer from the previous question. How is this coding system different from ASCII?

17. What is a “nibble”?

18. How many different combinations are possible with 2 bytes?

19. Early computers used vacuum tubes. How much information did one vacuum tube store?

20. What eventually replaced the vacuum tubes?

21. What do computers use today to store information?

22. Which has more power?

The cheapest cell phone made today, or the $10,000,000 ENIAC computer from 1946?

23. What number system is typically used to display memory addresses?

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

25. What are computer chips made out of?

26. When a metal is a “semiconductor” that means it allows you to precisely control the flow of what?

27. What kind of chip stores permanent information for the computer?

28. What does ROM stand for?

29. What kind of chip stores temporary information for the computer?

30. What does RAM stand for?

31. Which stores more information, gigabytes or terabytes?

32. Exactly how many bytes are in a kilobyte?

33. What does CPU stand for?

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

35. Iron Oxide is the technical term for something we use to store information on a disk.

What is the more common term?

36. What secondary storage device is coded with areas that reflect and absorb laser light?

37. Is a protractor digital or analog?

38. What type of information allows you to make a precise copy of the original?

39. Define the word “program”.

40. Explain why programming in machine language is undesirable.

41. List 2 of Grace Hopper’s accomplishments.

42. Explain the difference between an interpreter and a compiler.

43. What is a “low-level” language?

44. What is a high-level language?

45. Why do we not simply use English, or any other human language, to program a computer?