Unit 05_010 – Spaghetti Bowl Programming

Video Length 10:07

1. What was the definition of a "good programmer" prior to the middle 1960's? What problems did that definition cause?

2. Why were most programs written before the 1970s small?

3. Why are jmps and goto statements bad for quality programming?

4. What is spaghetti bowl programming?

Unit 05_015 – Structured Programming

Video Length 11:45

5. What is structured programming?

   What are the major features of structured programming? (Use your own words)

   1.

   2.

   3.

   4.

6. Why are if...else and while loops important to structured programming?

7. Can the principles of structured programming be applied to assembly language programs? Explain your answer.

Unit 05_020 – Masking

Video Length 6:05

8. What is masking?

9. What is a bitwise AND operation?

10. How can you tell if a binary number is even or odd?

11. What mask would you use to tell if a binary number is even or odd?

12. In the video I said that the contents of the register is "destroyed" by masking. Explain what that means.

Unit 05_030 – if

Video Length 24:26

13. Assembly language does not have an if..else structure. Explain how I got around the lack of an "else" clause in assembly?

14. In the video I caused a link error. How did I use the ld command to find the problem?

15. How many jump statements (including conditional jumps did I include in the program?)

Unit 05_040 – if..else

Video Length 9:35

16. How many jump statements were used when simulating an if..else block? (including conditional jumps)

17. Consider the if program from the previous video and the if..else program in this video. Suppose you had to come in and maintain the program a year from now. Which style would you prefer to maintain?

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Unit 05_50 – Comparisons

Video Length 7:06

18. Using just jz, and jnz style of jumps, how could you determine if two numbers are equal?

19. What does the cmp instruction do?

20. I am not sure how to ask this as a question, but note that the cmp statement must be used with the jmp instruction.

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Unit 05_050 – Part 2

Video Length 7:10

21. The video shows the code for a club that requires people to be 21 or older. Suppose it was a high-school-only club, and it only allowed in people 18 or younger. Rewrite the parts of the code that would need to change to make it an 18 and younger club.

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If you have any lingering questions or problems, please write them here or see me.

CSC 264

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MOV AX,BX
ADD AX,1
CALL FUNC
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Assembly Language and
Computer Architecture