Exam topics for Assembly language programming

1. assembler operation
2. main assembler pseudo instruction
3. integer number representation in C1, C2 and Sign and Value
4. real number representation in IEEE short format
5. I-8086 addressing modes
6. physical and effective address
7. CPU registers and their functions
8. arithmetical and logical instructions
9. shift and rotate instructions
10. data transfer instructions
11. address transfer and stack instructions
12. jump instructions

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13. conditional jump and loop instructions
14. software interrupts
15. procedures
16. macro definitions
17. macro and procedure libraries
18. single and multiple segment programs
19. single and multiple module programs
20. protected mode operation of I-80x86 processor
21. memory management
22. main data structures used in protected mode operation
23. system function calls

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24. math coprocessor structure and operation
25. math coprocessor data types
26. math coprocessor data transfer and constant load instructions
27. math coprocessor arithmetic and control instructions
28. math coprocessor mathematical functions
29. MMX extensions, data types and operating principles
30. multimedia calculus and main instruction families
31. program optimization, general issues, optimization levels
32. non optimal code determination methods
33. optimization techniques in ALP