

Exam topics for Assembly language programming III E

- 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. input output instructions**
- 13. jump, 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**
- 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**