

Basic exam questions:

1. Describe the basic functions of a computer system.
2. What are the rules for encoding numbers in 2's complement representation? Give examples.
3. Describe the main steps of the instruction cycle.
4. Describe the main addressing modes.
5. What are the main parts of the instruction code. Describe the main types of instructions.
6. Discuss the general structure of a processor.
7. What types of internal memory are used in computer systems? Specify main features of these memories.
8. What is the cache memory? Describe the main organizations of this memory.
9. What types of external memory are used in computer systems? Specify main features of these memories.
10. What is the I/O module: functions, general structure, interfaces?
11. Describe the main techniques for I/O operations.
12. What is the interrupt? Describe transfer of control during interrupts.
13. Describe the system bus.
14. What is the stack? Describe the main operation on stack.
15. Explain the following tools: compiler, assembler, linker, loader.