1. Which of them might be the registers of 16-bit processors?

    1. EAX.
    2. AX.
    3. AH.
    4. AL.

    a) 1, 2, 3, 4.
    b) 2, 3, 4.
    c) 2.
    d) 3, 4.

2. Which of them might be the registers of 32-bit processors?

    1. ECX.
    2. CX.
    3. CH.
    4. CL.

    a) 1, 2, 3, 4
    b) 2, 3, 4
    c) 2
    d) 3, 4

3. The advantage of Accumulator type of ISA (Instruction Set Architecture):

    a) Simple model of expression execution.
    b) Data can be stored for a long time.
    c) The shortness of instructions.

4. The advantage of Stack type of ISA (Instruction Set Architecture):

    I. Simple model of expression execution.
    II. Data can be stored for a long time.
    III. The shortness of instructions.

    a) I, III.
    b) I, II, III.
    c) III.

5. The advantage of GPR (General Purpose Registers) of ISA (Instruction Set Architecture):

I. Simple model of expression execution.

II. Data can be stored for a long time.

III. The shortness of instructions.

a) II, III.

b) II.

c) I, III.

6. Choose the right numbers to the place of three dots (…):

   A total number of Simplified CPU registers is …:

   a) 32

   b) 33

   c) 34

   d) 35

7. The disadvantage of Accumulator type of ISA (Instruction Set Architecture):

   I. All operators must go through the accumulator.

   II. Data cannot be stored for a long time.

   III. Memory traffic for this approach is higher than others.

   a) I, III.

   b) I, II, III.

   c) I, II.

8. The disadvantage of Stack type of ISA (Instruction Set Architecture):

   I. Only data from the top of stack can be accessed.

   II. Every operation is executed in the stack.

   III. All operators must be named.

   a) I, II.

   b) I, II, III.

   c) II, III.

9. The disadvantage of GPR (General Purpose Registers) of ISA (Instruction Set Architecture):

   I. Memory traffic for this approach is higher than others.

   II. Data cannot be stored for a long time.

   III. All operators must be named.

a) II, III.

b) III.

c) I, III.

10. Choose the right problems during the engineering of ISA:

    1. Where should operands be stored?
    2. How many explicit operands should be created?.
    3. What operations should be provided by the ISA?
    4. The type of operands and their size.

a) 1, 2, 3, 4.

b) 1, 3, 4.

c) 1, 2, 3.

d) 2, 3, 4.

Answers:

1. b
2. a
3. c
4. a
5. b
6. d
7. b
8. a
9. b
10. a