

1.9. Yes. If natural language can be expressed without ambiguity.

1.11. definiteness: take a book from classroom.

effectiveness: write down 15 primes less than 5.

finiteness: find all the integers and write down.

1.16. data types, addressing modes, operand.

1.18. A microarchitecture implements one ISA.

many microarchitecture can exist for one ISA.

2.8 (a) binary: 01111111 decimal: 127

(b) binary: 10000000 decimal: -128

(c)  $2^{n-1} - 1$  (d)  $-2^{n-1}$

2.14. (a) 1100 (b) 1010 (c) 1111 (d) 1011 (e) 10000

2.22. 0111 1111 1111 1111 + 0011 0011 1110 0001

2.24. 1111 1111 1111 1111 + 0111 1001 1111 1111

2.27. Yes. Two positive numbers add that result in a negative number.

2.34. (a) 0111 (b) 0111 (c) 1101 (d) 0110