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1. (Multiple Choices) For MCS-51, what are interrupt vectors?

a. e. (a) RESET (b) Timer0 (c) CAN (d) PWM (e) INT1 (f) SPI

2. (Multiple Choices) Which addressing modes are included in the following instructions?

a. c. e. f. (a) direct (b) indexed (c) bit (d) immediate (e) register (f) indirect

MOV A, R0 direct.
MOV 30H, A reg.
SETB 21H.1 bit.
MOV A, @R0 indirect.

3. (Multiple Choices) For MCS-51, what are special function registers?

(a) PWM (b) ADC (c) I2C (d) PC (e) SP (f) DPTR

4. List 3 characteristics/advantages of RISC.

1个clock能完成一道指令.
指令简单. 功耗低. 很多Register.

5. Show the value of A after executing the following instructions.

CAH. MOV A, #65H 0110 0101.
SWAP A 1100 1010.
C. A 01010110

6. What are the content of SP and the memory addresses 22H, 23H, 32H and 33H after running the following instructions?

MOV 22H, #23H

MOV 23H, #22H

MOV SP, #72H

PUSH 23H

PUSH 22H

PUSH 23H

POP 32H

POP 33H

22H = #23H.
23H = #22H.
SP = #72H.
32H = 22H.
33H = 23H.

22H = #23H.
23H = #22H.
73H = #22H.
74H = #23H.
75H = #22H.
32H = #22H.
33H = #23H.
SP = 73H.

-8+4

7. Fill out (a), (b), (c) and (d) to complement A 840 times.

MOV A, #55H

MOV R1, (a) 20

NEXT: MOV R2, (b) 42

AGAIN: CPL A

DJNZ R2, (c) AGAIN

DJNZ R1, (d) NEXT

one clk - 102
很多register
有 pipeline.
功耗低.
a b e.
d e f.

-8
10001001
10010010
10001001
CY=1
AC=0
P=1.

8. Show the status of CY, AC and P in PSW register after the addition of 9BH and 65H.

CY = 1.
AC = 1.
P = 1.
9BH = 10011011
65H = 01100101
10000000

奇同位, 算到CY 9位.
偶同位

-5+5

