

- 1) Which instruction in the 8051 microcontroller moves data from one register to another without affecting the flags?

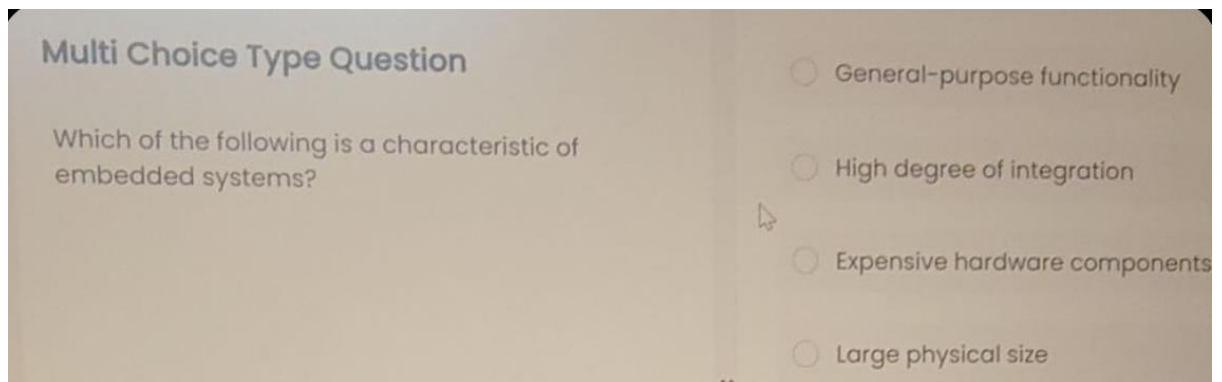
ADD A, B

CLR A

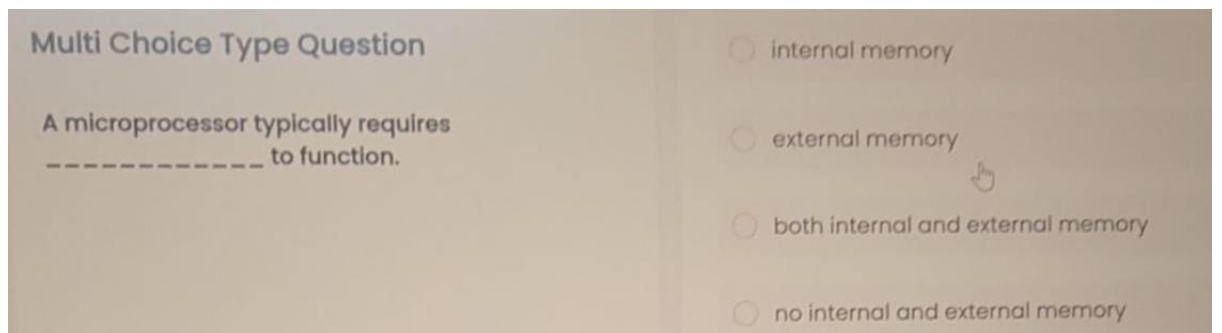
SUBB A,B

MOV A,B

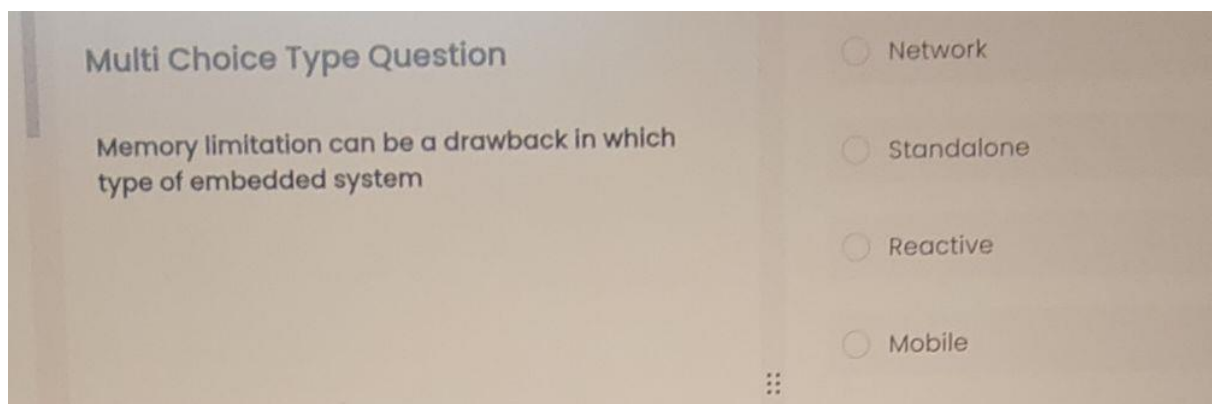
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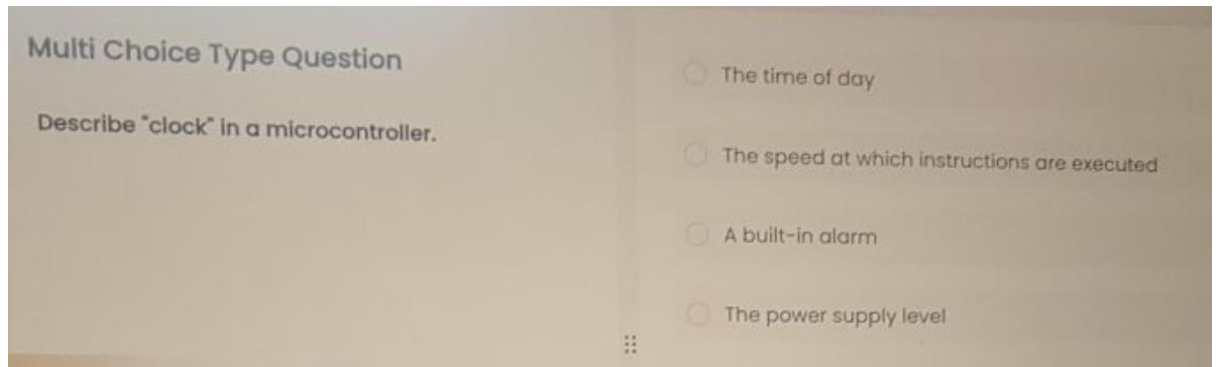
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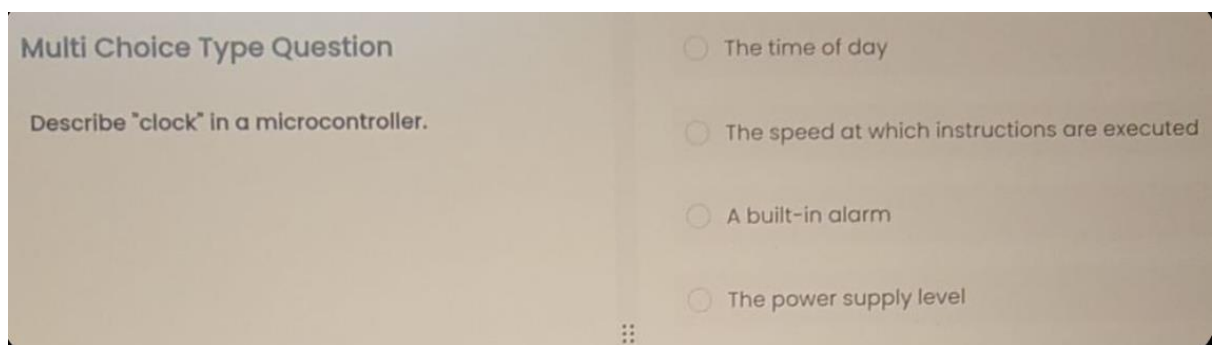
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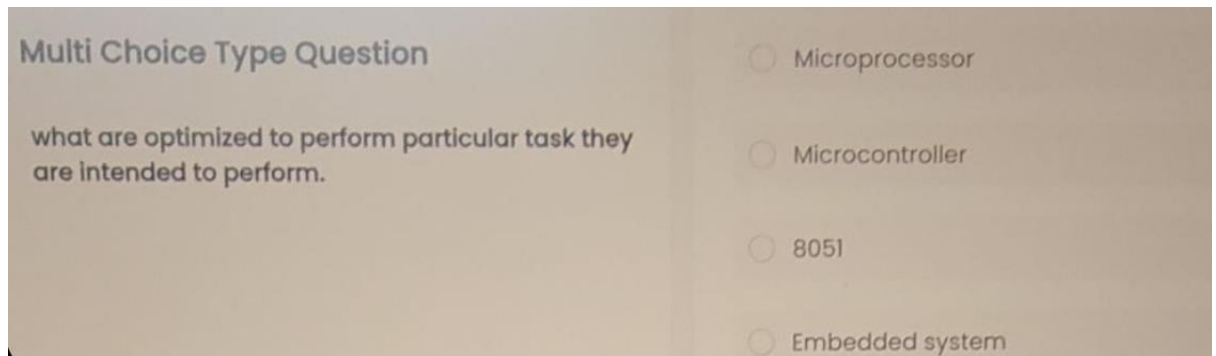
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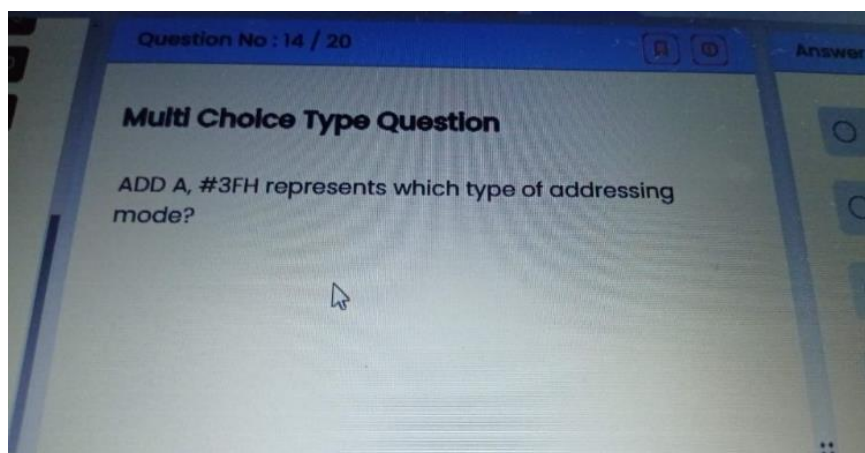
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7)



8)



9)

**Multi Choice Type Question**

What does the 8051 use Port 2 for in addition to general I/O?

- ☐ Timer functions
- ☐ External memory address
- ☐ Serial communication
- ☐ External interrupts

10)

**Multi Choice Type Question**

Which is the most common example of an embedded system?

- ☐ Desktop computer
- ☐ Smartwatch
- ☐ Supercomputer
- ☐ Cloud server

11)

**Multi Choice Type Question**

MOV A, @R4 is an example for \_\_\_\_\_ addressing.

- ☐ Memory Direct
- ☐ Register Direct
- ☐ Register Indirect
- ☐ Immediate

12)

**Multi Choice Type Question**

Data transfer from I/O to external data memory can only be done with the -----command.

- ☐ MOV C
- ☐ MOV A
- ☐ MOV @R3
- ☐ MOVX

13)

**Multi Choice Type Question**

Which port in the 8051 is used for serial data transmission?

- ☐ Port 0
- ☐ Port 1
- ☐ Port 2
- ☐ Port 3

⋮

14)

**Multi Choice Type Question**

"RLC A" is for

- ☐ Rotate bits of the accumulator right through carry
- ☐ Rotate bits of the accumulator right
- ☐ Rotate bits of the accumulator left through carry
- ☐ Rotate bits of the accumulator left

15)

**Multi Choice Type Question**

\_\_\_\_\_ assess the data to measure the output and store it to the memory.

- ☐ Sensor
- ☐ ADC
- ☐ Processor & ASIC
- ☐ Actuator

⋮

16)

**Multi Choice Type Question**

Which of the following is a part of the microcontroller?

- ☐ Power Supply
- ☐ Rectifier
- ☐ Filter
- ☐ Timer

⋮

17)

**Multi Choice Type Question**

What type of addressing is used when accessing data through a register?

- ☐ Immediate Addressing
- ☐ Register Addressing
- ☐ Direct Addressing
- ☐ Indirect Addressing

18)

**Multi Choice Type Question**

Which of the following is NOT a feature of real time embedded systems?

- ☐ Predictability
- ☐ Reliability
- ☐ Determinism
- ☐ Randomness

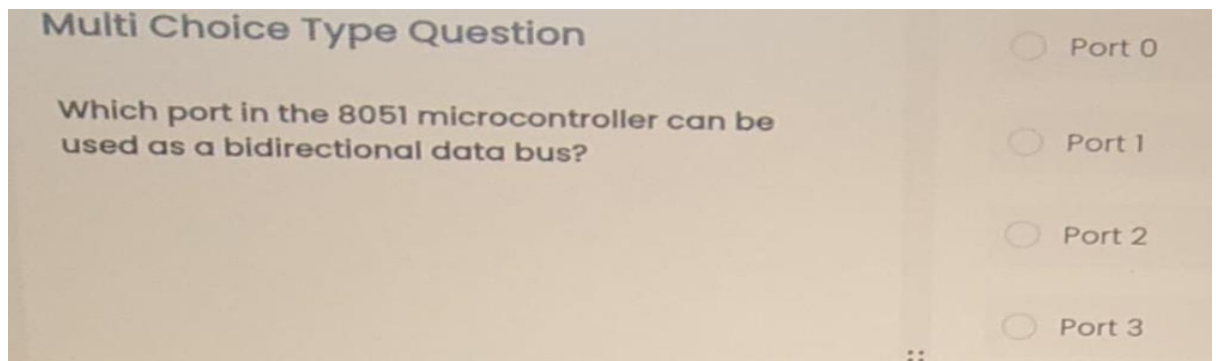
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**Multi Choice Type Question**

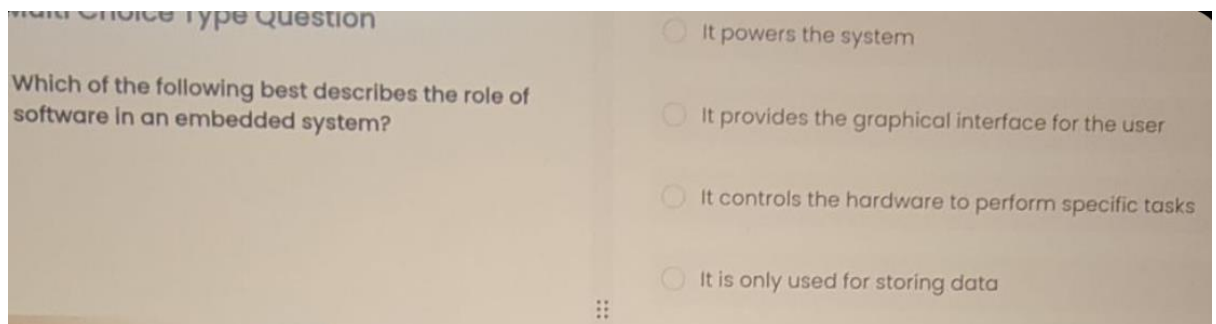
Which factor is most critical in determining the feasibility of a task set in real time systems?

- ☐ Task priority
- ☐ Resource availability
- ☐ Deadline adherence
- ☐ System uptime

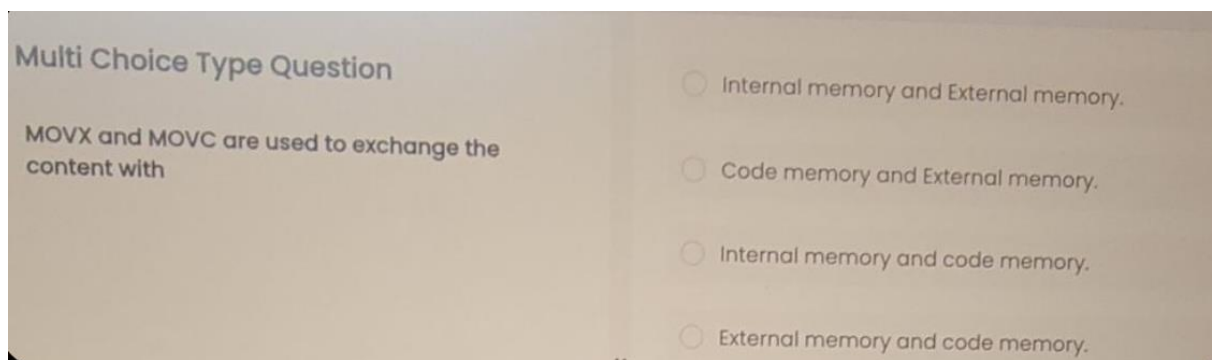
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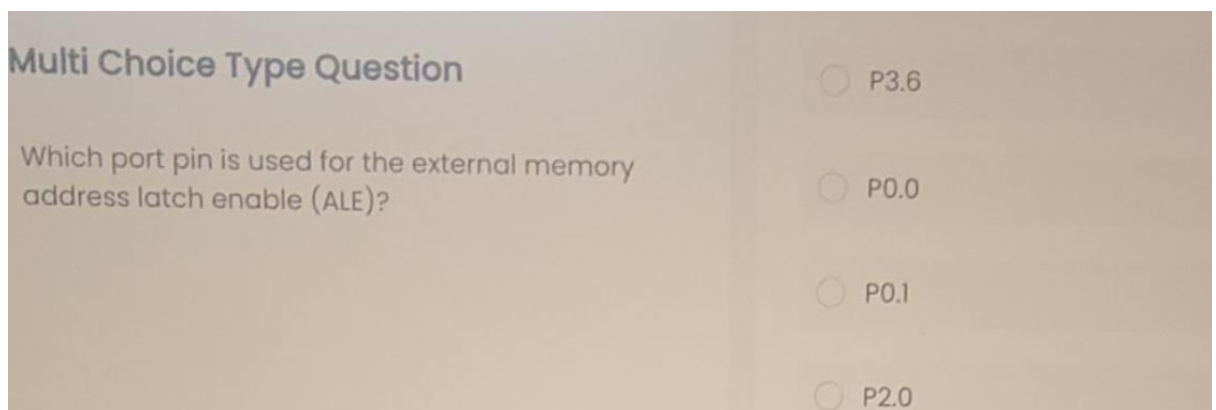
21)



22)



23)



24)

### Multi Choice Type Question

SWAP A is for

- ☐ Swap 8-bit data with the accumulator
- ☐ Swap 8-bit data within the accumulator
- ☐ Swap nibbles within the accumulator
- ☐ Swap 8-bit data within the memory

⋮

25)

### Multi Choice Type Question

Why is assembly language sometimes used to program microcontrollers?

- ☐ It is easier to write than high-level languages
- ☐ It provides direct control over hardware
- ☐ It is the only language microcontrollers understand
- ☐ It is faster to learn than other languages

⋮

26)

### Multi Choice Type Question

In which scenario might the Von Neumann architecture be more suitable than the Harvard architecture in an embedded system?

- ☐ When low power consumption is critical
- ☐ When simplicity and cost are priorities
- ☐ When high processing speed is required
- ☐ When separate memory for instructions and data is needed

⋮

27)

### Multi Choice Type Question

In a firm real-time system, what happens if a task misses its deadline?

- ☐ The task is discarded, but the system continues operating
- ☐ The system crashes
- ☐ The task is re-executed
- ☐ The deadline is extended automatically

28)



### Multi Choice Type Question

The difference between FPGA and PLD is \_\_

- ☐ FPGA is slower than PLD
- ☐ FPGA has high power dissipation
- ☐ FPGA incorporates logic blocks
- ☐ All of the mentioned

29)

### Multi Choice Type Question

In type A USB, pin no. 1 which is of red color, is  
-----

- ☐ D-
- ☐ D+
- ☐ VBUS
- ☐ GND

30)

### Multi Choice Type Question

The first part of the instruction is called as

- ☐ operand
- ☐ data
- ☐ Mnemonic
- ☐ Memory

31)

### Multi Choice Type Question

What feature is important for embedded systems  
in remote sensing applications?

- ☐ High-speed network connectivity
- ☐ Ability to operate in harsh environments and low power consumption
- ☐ Large-scale data storage capabilities
- ☐ High-definition graphics



32)

**Multi Choice Type Question**

Input/output (I/O) ports used for?

- ☐ To connect the microcontroller to external devices
- ☐ To store data temporarily
- ☐ To perform arithmetic operations
- ☐ To generate interrupts

33)

**Multi Choice Type Question**

Which of the following is not an addressing mode in the 8051?

- ☐ Register Indirect Addressing Mode
- ☐ Implied Addressing Mode
- ☐ Memory Addressing Mode
- ☐ Direct Addressing Mode

34)

**Multi Choice Type Question**

What is a typical power supply feature of embedded systems?

- ☐ High voltage AC power supply
- ☐ Low voltage DC power supply
- ☐ Battery or low power adapter
- ☐ Continuous power generation unit

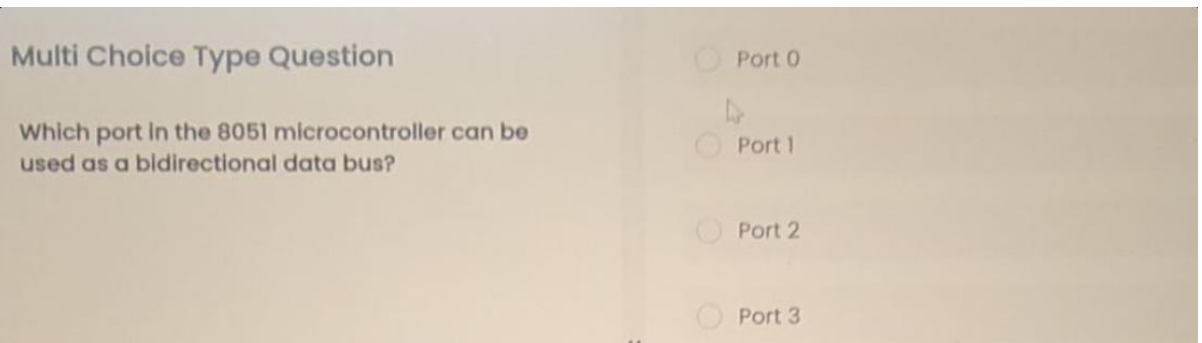
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**Multi Choice Type Question**

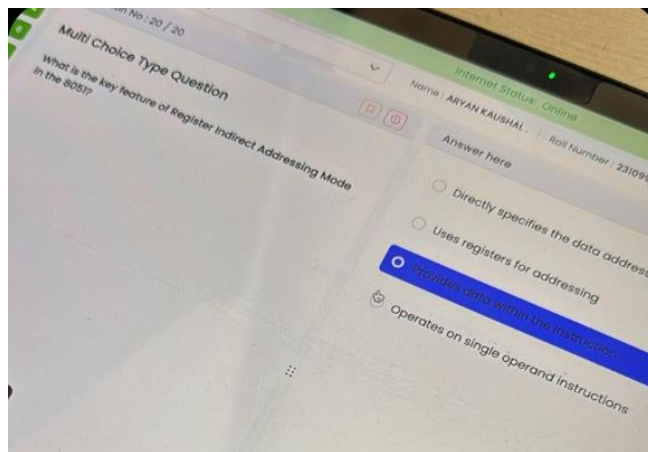
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36)



37)



38)

