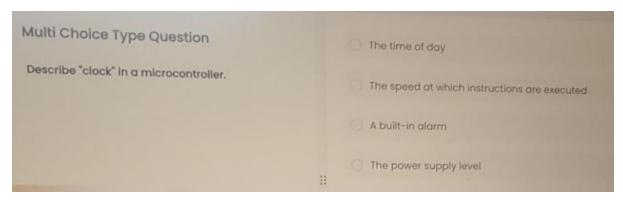
| 1) | Which instruction in the 8051 microcontroller moves data without affecting the flags? | from one register to another |
|----|---|-----------------------------------|
| | ADD A, B | |
| | CLR A | |
| | SUBB A,B | |
| | MOV A,B | |
| | | |
| 2) | | |
| | Multi Choice Type Question | General-purpose functionality |
| | Which of the following is a characteristic of embedded systems? | High degree of integration |
| | | Expensive hardware components |
| | | Large physical size |
| 3) | | |
| | Multi Choice Type Question | internal memory |
| | A microprocessor typically requires to function. | external memory |
| | | both internal and external memory |
| | | no internal and external memory |
| 4) | | |
| | Multi Choice Type Question | Network |
| | Memory limitation can be a drawback in which type of embedded system | Standalone |
| | | Reactive |
| | | ○ Mobile |
| | | |

5)

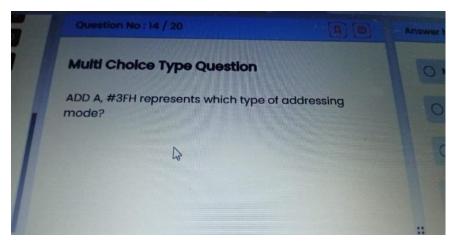


6)

| U) | | | |
|----|--|--|------|
| | Multi Choice Type Question | The time of day | |
| | Describe "clock" in a microcontroller. | The speed at which instructions are execu- | uted |
| | | A built-in alarm | |
| | | The power supply level | |
| | | | |

7)

| Multi Choice Type Question | Microprocessor |
|---|-----------------|
| what are optimized to perform particular task they are intended to perform. | Microcontroller |
| | 0 8051 |
| | Embedded system |



Multi Choice Type Question Timer functions What does the 8051 use Port 2 for in addition to general I/O? External memory address Serial communication External interrupts 10) Multi Choice Type Question Desktop computer Which is the most common example of an Smartwatch embedded system?

11)

Multi Choice Type Question Memory Direct MOV A, @R4 is an example for _____ Register Direct addressing. Register Indirect Immediate

Supercomputer

Cloud server

| Multi Choice Type Question | 19 | ○ MOV C |
|--|------|-----------|
| Data transfer from I/O to external data memory can only be done with thecommand. | | O MOV A |
| | | ○ MOV @R3 |
| | | ○ MOVX |
| | - :: | |

| | Multi Choice Type Question | | | | O Port 0 |
|-----|---|---|--------|--------|---------------------------------------|
| | Which port in the 8051 is used for serial data transmission? | | | | O Port 1 |
| | | | | | O Port 2 |
| | | | : | | O Port 3 |
| 14) | | | • | • | |
| , | Multi Choice Type Question | 0 | Rotate | bits o | f the accumulator right through carry |
| | "RLC A" is for | | Rotate | bits o | f the accumulator right |
| | | | Rotate | bits o | f the accumulator left through carry |
| | | 0 | Rotate | bits o | f the accumulator left |
| 15) | | | | | |
| | Multi Choice Type Question | | |) Se | ensor |
| | assess the data to measure the output and store it to the memory. | | |) AI | oc . |
| | | 4 | , |) Pro | ocessor &ASIC |
| | | | |) Ac | tuator |
| 16) | | | | _ | |
| | Multi Choice Type Question | | | | Power Supply |
| | Which of the following is a part of the microcontroller? | | | 01 | Rectifier |
| | | | | 0 1 | Filter |
| | | | | 01 | Timer |

17)

| Multi Choice Type Question | | Immediate Addressing |
|---|-----|----------------------|
| What type of addressing is used when accessing data through a register? | | Register Addressing |
| ₽ | | Direct Addressing |
| | . 0 | Indirect Addressing |

18)

| Multi Choice Type Question | O Predictability |
|--|------------------|
| Which of the following is NOT a feature of real time embedded systems? | Reliability |
| | O Determinism |
| | Randomness |

| Multi Choice Type Question | Task priority |
|--|-----------------------|
| Which factor is most critical in determining the feasibility of a task set in real time systems? | Resource availability |
| | Deadline adherence |
| | System uptime |

| Multi Choice Type Question | O Port 0 |
|---|----------|
| Which port in the 8051 microcontroller can be used as a bidirectional data bus? | O Port 1 |
| | O Port 2 |
| | O Port 3 |

| 21) | | | |
|-----|---|---|--|
| | riditi Choice Type Question | | O It powers the system |
| | Which of the following best describes the role of software in an embedded system? | | It provides the graphical interface for the user |
| | | | It controls the hardware to perform specific tasks |
| | | H | It is only used for storing data |

Multi Choice Type Question

Internal memory and External memory.

MOVX and MOVC are used to exchange the content with

Code memory and External memory.

Internal memory and code memory.

External memory and code memory.

| Multi Choice Type Question | O P3.6 |
|--|--------|
| Which port pin is used for the external memory address latch enable (ALE)? | O P0.0 |
| | O P0.1 |
| | O P2.0 |

| Multi Choice Type Question | Swap 8-bit data with the accumulator |
|----------------------------|--|
| SWAP A is for | Swap 8-bit data within the accumulator |
| | Swap nibbles within the accumulator |
| | Swap 8-bit data within the memory |

| 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 | |
| | |
| 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 neede | |
| | |

The system crashes

The task is re-executed

The deadline is extended automatically

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

| Multi Choice Type Question | FPGA is slower than PLD |
|--|---|
| The difference between FPGA and PLD is | FPGA has high power dissipation |
| | FPGA incorporates logic blocks |
| | All of the mentioned |
| 9) | |
| Multi Choice Type Question | O D- |
| In type A USB, pin no. 1 which is of red color, is | O D+ |
| | O VBUS |
| | ○ GND |
| 0) | |
| Multi Choice Type Question | operand |
| The first part of the instruction is called as | () data |
| | O Mnemonic |
| | ○ Memory ∷ |
| 1) | |
| Multi Choice Type Question High-speed network connectivity | |
| What feature is important for embedded systems in remote sensing applications? | Ability to operate in harsh environments and low power cons |
| | Large-scale data storage capabilities |
| | High-definition graphics |

| 2 | า | ١ |
|---|---|---|
| э | Z | 1 |

Multi Choice Type Question

To connect the microcontroller to external devices

To store data temporarily

To perform arithmetic operations

To generate interrupts

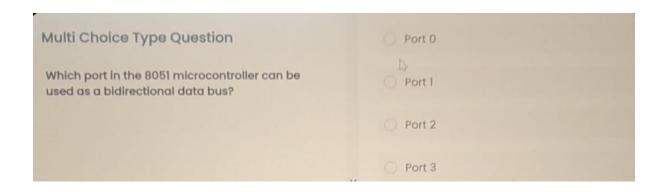
33)

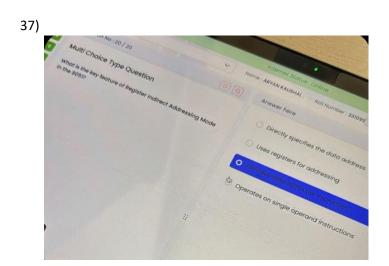
Multi Choice Type Question Register Indirect Addressing Mode Which of the following is not an addressing mode in the 8051? Implied Addressing Mode Memory Addressing Mode Direct Addressing Mode

34)

Multi Choice Type Question What is a typical power supply feature of embedded systems? Low voltage DC power supply Battery or low power adapter Continuous power generation unit

| Multi Choice Type Question | To connect the microcontroller to external devices |
|------------------------------------|--|
| Input/output (I/O) ports used for? | To store data temporarily |
| | To perform arithmetic operations |
| | ○ To generate interrupts |





Multi Choice Type Question

In byte by byte division the quotient is placed in ---
Accumulator

Memory Address

Data Register