

Date : _____

No: _____

Assignment [1]

1)

- * MicroProcessor: a General Purpose Processor that contains no RAM, ROM and cannot operate without them.
- * Micro Controller: a chip that contains RAM, ROM, I/O along with the microproc.
- * Embedded systems: systems controlled by a special purpose computer.
- * Mechatronic system: systems in which mechanical HW are integrated with info driven systems.
- * N-bit Processor: a processor that deals with N bit of data at a time.

2) Micro Processor

- * General Purpose

- * No RAM/IO/Rom

Micro Controller

- * Specific Purpose

- * has RAM/IO/Rom

3) Von-Neuman:

- a single common memory space where program instructions and data are stored and a single data bus fetches instructions and data

- * Harvard:

- separate memory area for instructions and another for data. one bus connects CPU to RAM and another connects CPU to Rom.

4) *PRom

- information can be burned only once

- * EProm

- can be programmed and erased using UV

- * EEPROM

- can be prog. and erased electrically

- byte wise erasable

- * Flash

- same as EEPROM but block erasable

Date : _____

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5)

* SRAM

- Made of Flip Flops

- Doesn't need refreshing in order to keep data

- Fast and not too expensive

* NV-RAM

- Contents are not gone when power is off

* DRAM

- Made of Capacitors

- Requires refreshing in order to keep data

- Slower than SRAM

6) because in the normal operation, CPU can't write to it