UNIT – II

Introduction to MicroControllers

→ Difference between microprocessor & micro Controller.

→ Overview of 8051 MicroController

→ Architecture, I/O ports

→ Memory Organization

→ Addressing Modes and Instruction set of 8051

8051 Real time Control:

→ Programming Timer Interrupts

→ Programming External Hardware Interrupts

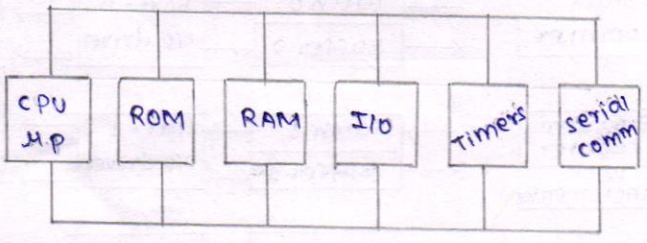
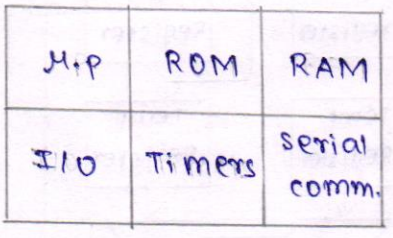
→ Programming the Serial Communication Interrupts.

→ Programming 8051 Timers and Counters.

UNIT-II

4Q. (a) Differentiate between microprocessors & micro controllers.

A:

Micro Processor	Micro controller. (12)
	
1. It consists of ALU, control unit, different registers & interrupt circuits.	1. It consists of microprocessor, ROM & ROM, I/O interfacing circuits & peripheral devices such as A/D converter, serial I/O, timer etc.
2. It has more instructions to move data between CPU & memory.	2. It has 1 or 2 instructions to move data between CPU & memory.
3. It has 1 or 2 bit handling instructions.	3. It has many bit handling instructions.
4. It is more flexible in design point of view.	4. It is less flexible in design point of view.
5. It requires more hardware.	5. It requires less hardware.
6. Access times for memory & I/O devices are more.	6. Less access time for built in memory & I/O devices.
7. It has single memory map for data & code.	7. It has separate memory map for data & code.
8. Less number of pins are multi functioned.	8. More number of pins are multifunctioned.