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Lab : Programming Skill development
Batch : E11
Assignment: 6

Q1. Write a note on microprocessor and microcontroller. Draw block diagram of PIC 18, memory.

Answer:

(A) Microprocessor:

(i) Microprocessor is suited to programming and processing information in computer system.

(ii) Microprocessor is processing intensive. has powerful addressing modes, instructions to perform complex operations and manipulate large volumes of data.

(iii) Microprocessor usually requires external circuitry to interface I/O devices.

(iv) Microprocessor has very wide bus widths, large memory address spaces (>4Gr bytes) and lots of data (Data bus: 32, 64, 128 bits wide).

(B) Microcontroller

(i) Is suited to control of I/O devices requiring a minimum component cnt.

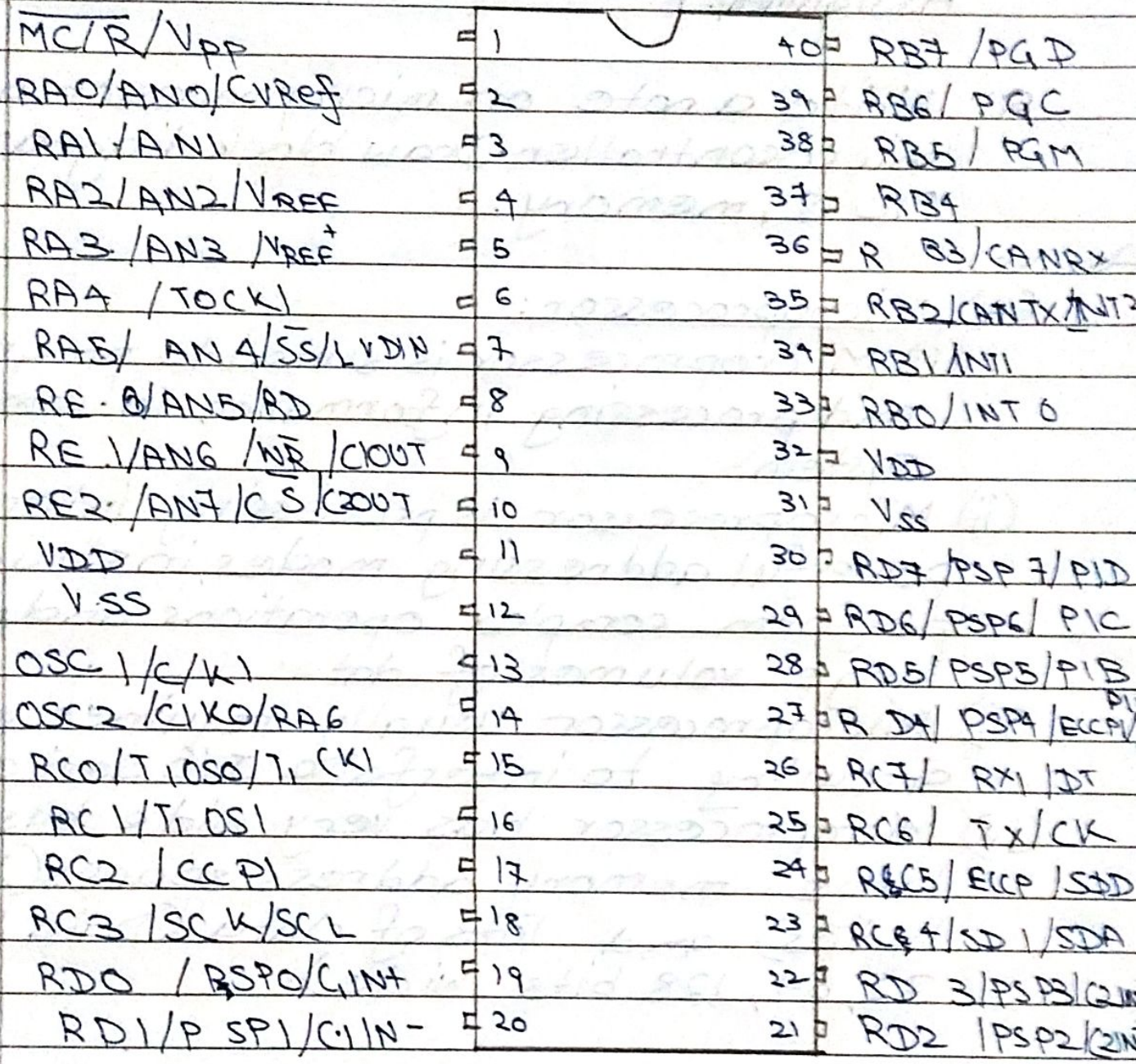
(ii) Microcontroller is ~~ude~~ used to control inputs and outputs. Hence, instructions are to set/clear bits, boolean operations.

(iii) It has extremely compact instructions, many implemented in one byte.

(iv) It has built in input-output control module, event timing counting.

(v) It has narrow buses, Relatively small memory address spaces (K-bytes) & less data (Data bus of 8, 16 bits wide).

(c) Block Diagram of PIC18



(D) Block Diagram of Memory:→

(P.T.O.)

(c) BLOCK DIAGRAM OF MEMORY