

```

1) Pseudocode
while(1) {
    while (start == 0) { cnt = 0 } → Reset cnt
    while (cnt < 5) {
        if (Load == 1) {
            switch (cnt) { --- Decoder
                {
                    case 0: Reg 0 = Data;
                    case 1: Reg 1 = Data;
                    case 2: Reg 2 = Data;
                    case 3: Reg 3 = Data;
                    case 4: Reg 4 = Data;
                }
            } → pentaco Load
        }
        cnt++; → incnt
    }
    cnt = 0; Qmax = 0; → Reset Qmax
}

```

```
while (FindMax == 0) { cnt=0; QMax=0 } → Res in QMax
```

```
while (cnt < S) {
    switch (cnt) {
        case 0: if (Reg0 > Qmax) { Qmax = Reg0; }
        case 1: if (Reg1 > Qmax) { Qmax = Reg1; }
        case 2: if (Reg2 > Qmax) { Qmax = Reg2; }
        case 3: if (Reg3 > Qmax) { Qmax = Reg3; }
        case 4: if (Reg4 > Qmax) { Qmax = Reg4; }
    }
    cnt++;
}
```

```

3 end div freq = 1;
while C10Seq = 0 {

```

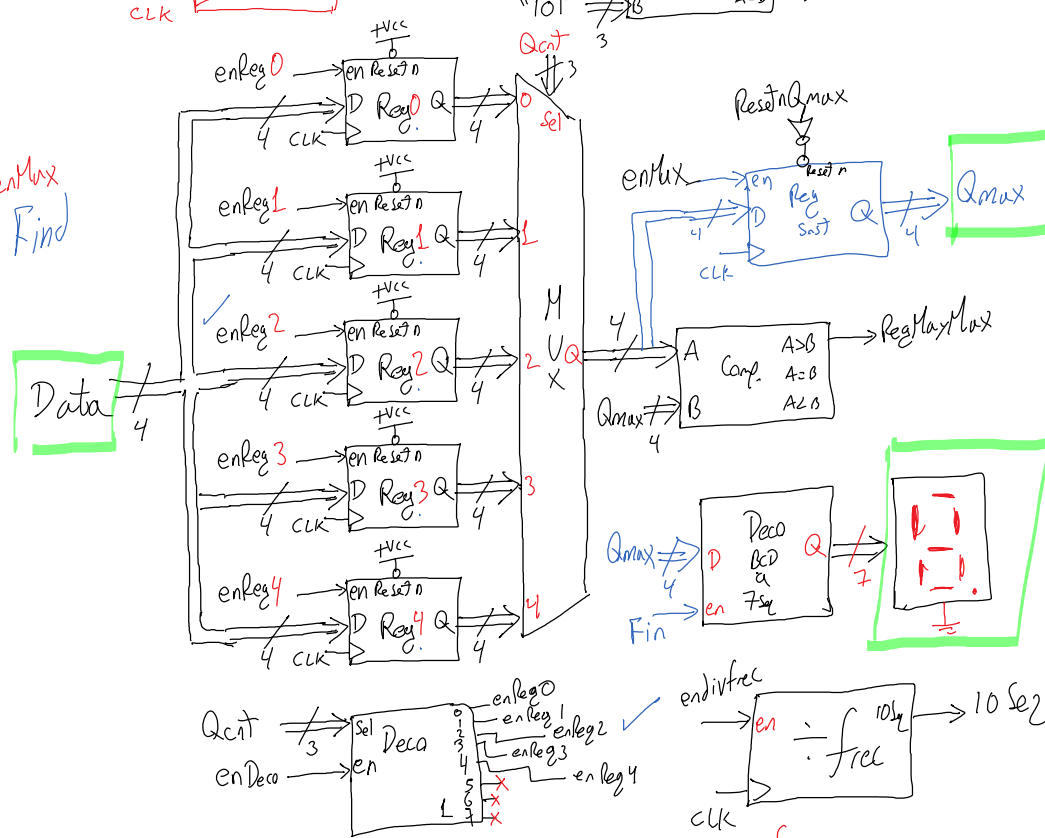
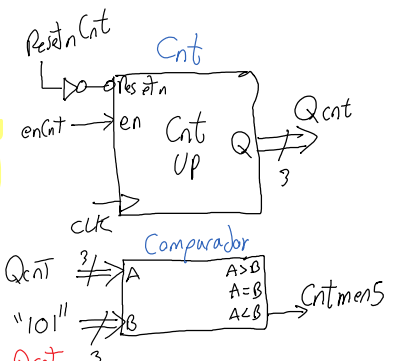
2 Fin; \rightarrow en Reco

② Partition Function Module

The diagram shows a central block labeled 'M' (Module). It has several inputs and outputs:

- Inputs:**
 - S_{start} (green arrow)
 - $Load$ (red arrow)
 - $FindMax$ (red arrow)
 - $cntmax5$ (green arrow)
 - $RegMaxMax$ (green arrow)
 - $10Reg$ (green arrow)
 - clk (red arrow at the bottom)
- Outputs:**
 - $Resetn$ (red arrow at the top)
 - Fin (green arrow at the top right)
 - $ResetnCnt$ (green arrow)
 - $encCnt$ (green arrow)
 - $ResetnMax$ (green arrow)
 - $enMax$ (green arrow)
 - $endirfec$ (green arrow)

Inside the block 'M', there are two red labels: 'S' and 'S'.



③ ASM :



