Quiz ③ Solution

Q_1 (a) Harvard architecture uses separate address and data busses dedicated to program and data memory

Q_1 (b) MCU is mainly made for specific applications
MPU is more general purpose.

Q_1 (c) Soft realtime: the system's reaction to an input or interrupt can be delayed to a certain tolerance.
Hard realtime: If the system's response is delayed (misses the execution deadline) the system is considered a failure.

Q_1 (d)

a	c	b
X	0	Z (high imp.)
0	1	0
1	1	1

Q_1 (e)   Static RAM : No need to refresh memory usually is composed of Flip Flops

Dynamic RAM : Memory has to be regularly refreshed. Usually uses charged capacitors.

Q₂:

R2	R3	R4
0x00	0x00	0x00
0x01	"	"
0x02	"	"
0x FD	"	"
"	0x 80	"
"	0x 7F	"
0x 7D	"	"
"	"	0x01
0x FA	"	"
0x 05	"	"
"	0x00	"
0x05	0x00	0x02

then
    infinite loop   done!

                        BEQ done!