1a) (A’･C’)’･(A･D+A･D’)+A･C+C

(A’･C’)’･((D+D’)･A)+A･C+C

(A’･C’)’･(1･A)+A･C+C

(A’･C’)’･A+A･C+C

(A+C)･A+A･C+C

A･A+C+A+A･C+C

A+(A･C)+(A･C)+C

A+A･C+C

(1+C)･A+C

A+C

1b) diagram in lecture notes

(A･B)+C･((B’･A)+(A’･B))

1c)

Big endian

0000000 00000000 10000111 00000111]

Little endian

00000111 10000111 0000000 00000000

1d)

i) 2^35 bytes

ii) 4 memory modules

iii) 4 modules → 2 bits

Iv) memory module 0

V) 29 mod 4 = 1 → memory module 1

1e)

Final answer: 0 10000101 0101001000......

2ai)

Program counter/ EIP (which are the same thing)

Not really sure, thought it could be some interrupt instruction

ii)

Programmed I/O

Interrupt driven I/O

DMA I/O

I/O processor

Cycle stealing will give precedence to the DMA over the CPU

iii) (not too sure)

Push the eip onto the stack which will allow us to jump to a method and act as the return address for us to come back to after the method has executed

iv)