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ECEN 304

Ass -1

1- What is the 8-bit binary (twos-complement) representation of each of the following signed decimal integers?

A) 01001000
10111000

B) 01100010
10011110

C) 00011010
11100110

2- What is the largest value you can represent using a 256-bit unsigned integer?

2^256 -1 = $1.157920892 \times 10^{7}$ 7

3- What are the largest positive value and the minimum negative value you can represent using a 256-bit signed integer?

+ve >> 2^(256-1) -1 =.....
-ve >> -2^(256-1) = ...

4 - Define multitasking ?

OS can run multiple programs at the same time . (from slide 6 :P).

5- The central processor unit is connected to the rest of the computer system using what three buses?

Control bus , Data bus , Address bus

6- What is the range of addressable memory in protected mode?

4 MB

7 - What is the range of addressable memory in real-address mode?

1 MB

8- The two ways of describing an address in real-address mode are segment-offset and

linear address

9 - In real-address mode, convert the following hexadecimal segment-offset address to a linear address: 0950:0100.

09600h

10- In real-address mode, convert the following hexadecimal segment-offset address to a linear address: 0CD1:02E0.

0CFF0h

11. In MASM’s flat segmentation model, how many bits hold the address of an instruction or variable?

32 bit