

8) What is the design challenge for Lead-free PCB design? (check all possible answers)

- a. design of physical footprint.
- b. design of clock tree.
- c. choice of SMDs.

9) What is the directive that has been passed for controlling E-waste?

RoHS & WEEE to stop toxic materials

10) Which of the following toxic materials does the directive restrict in electronic devices? (check all possible answers)

- a. lead
- b. aluminum
- c. cadmium
- d. mercury
- e. copper

11) What are the possible design parameters for low power CMOS design?

Leakage current

12) Does increasing threshold voltage reduce static power dissipation?

- a. Yes
- b. No

$P = I^2 R$

13) Does increasing supply voltage reduce dynamic power dissipation?

- a. Yes
- b. No

14) What are data centers?

Data centers are highest energy consuming electric devices

15) What is the typical power consumption from a data center

- a. 10 KW
- b. 40MW
- c. 500 KW
- d. 90 MW

16) Which of the following can be implemented to obtain energy efficiency in data centers?

- a. reduction of hardware
- b. area minimization
- c. streamlining power supplies
- d. all of the above

17) Do you think this exposure was helpful to understand some of the ethical issues as a VLSI Designer?

- a. Very Helpful
- b. Somewhat helpful
- c. I already knew most of it
- d. No use at all

18) In future do you like more emphasis of which of the following area

- a. Design issues of Lead-free computing
- b. Just enough energy computing
- c. Knowing more about laws
- d. Low power design issues
- e. Cooling techniques

19) What is the most important take-home message of this environment-friendly green computing knowledge module?

We came to know the dis-advantages of E-waste & lead-free Elec., how RoHS & WEEE den are used to stop toxic & how global warming is effected & about LEEDS & Data center.

20) Any suggestions:

lecture is good & Interesting.