Silicon Run II Questions

1. Logic circuits, such as AND, OR and NOT gates, consist of integrated circuits using _____ as switches.

2. Logic gates are the "building blocks" of integrated circuits. True/False

3. After the silicon wafer circuits are fabricated, they're _____ _____and _____.

4. How is a silicon wafer circuit tested?

5. How is a failed silicon wafer circuit marked?

6. What is a die?

7. How are dies separated from a silicon wafer?

8. What IC assembly technology is used to connect the silicon integrated circuit to the package pins?

9. The silicon integrated circuits are encapsulated in _____.

10. After encapsulation, the leads are _____ with _____.

11. Before burn-in, packaged ICs are _____ _____.

12. What is meant by burn-in?

13. Why are ICs burned-in?

14. ICs go through thermal cycling? True/False

15. After ICs have completed testing, they're grouped in what three categories?

16. How is the solder paste put on the PCB during screen printing?

17. During SMA, how is the solder paste melted?

18. After insertion of through-hole components, final soldering is done by?

19. Once PCBs are completely assembled, each board is _____ _____.

20. From silicon wafer fabrication to system completion, how many electrical tests take place?

21. What are the four basic components of computers?

22. What are the two types of integrated memory?

23. Which memory type is non-volatile?

24. The processor IC in the video contains over 1 million transistors? True/False

25. As an electrical signal travels along PCB traces it encounters increased _____ from varying width traces, pins and package connections; thereby _____ the speed of the signal.

26. MCU stands for?

27. The PCB of a MCU is a high density signal carrier substrate consisting of _____ layers and _____ thousand bonding pads.

28. The die in a MCU is bonded to a high density signal carrier by which IC assembly interconnection technology?

29. What is the purpose of pin fins?