Advanced Digital Design

Unit-2

Descriptive Questions

Question Bank

1. Differentiate between Skew and Jitter with neat sketches.
2. Explain the sources of clock skew and jitter
3. Write a short note on transition time in digital waveforms in neat diagrams
4. Describe the following: aperture time, contamination time, setup time, hold time, propagation time of flip-flop.
5. Differentiate between latch and flip-flop using neat waveforms.
6. Explain the double edge triggered flip flop with neat waveforms and circuit diagram.
7. Explain the importance of Eye diagram
8. Explain how timing margin and voltage margin trade off in eye diagram
9. With neat diagram, explain eye diagram with jitter, sampling point, amplitude noise.
10. With neat diagram, explain the basic two phase non-overlapping clock is insensitivity to skews.
11. With neat diagram, explain the functioning of Ex-OR comparator
12. Write a short note on variable delay line
13. Write a short note on PLL.
14. Write a short note on Voltage Controlled Oscillators.
15. Explain the importance of Frequency Comparator.