C 32099

Name.....

Reg. No.....

SIXTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION, JUNE 2007

I. (a) Explain in detail the inductance and capacitance effects in high-speed digital circuits.

(b) Define self inductance. Explain its significance.

(c) Explain the characteristics of an ideal transmission line.

(d) What are near and far end cross-talks. Explain. What are the methods to overcome them ?

(e) Explain about cross-talk in terminators.

(f) Enumerate the properties of Vias. Explain any *two* in detail.

(g) What is clock skew ? Explain.

(h) Explain the principles of clock oscillators with neat sketches.

(8 × 5 = 40 marks)

II. (a) Describe in detail the high speed properties of logic gates.

Or

(b) Describe in detail the loading effects of probes.

III. (a) Describe in detail the advantages and applications of transmission lines in High speed digital circuits.

Or

(b) Describe in detail the effect of cross-talk in High Speed Digital circuits.

IV. (a) Describe in detail Mechanical properties of vias.

Or

(b) Explain the principle of AC biasing for end terminations.

V. (a) Explain the distribution of stable reference voltage to a high speed digital circuits.

Or

(b) Describe in detail the methods to reduce clock skew.

(4 × 15 = 60 marks)

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