



The Essentials of Computer Organization and Architecture 2nd Edition

Linda Null and Julia Lobur
Jones and Bartlett Publishers, 2006

Errata (1st Printing)

To confirm you have the first printing, see page ii for the following:

Printed in the United States of America
10 09 08 07 06 10 9 8 7 6 5 4 3 2 1

As errors are found in the textbook, they will be added to this list. The list will be updated as necessary. If you find an error, please send it to ecoa@jbpub.com.

Symbols Used

ti = ith line from top
bi = ith line from bottom
Fi = Figure i
X → Y = replace X with Y
Ti = Table i
Pi = Problem i
Ei = Example i

Format

Page # Location: Correction
Strikethrough: Correction/modification in errata

February 2006 List (publishing errors introduced in the production process)

xxii Chapter 2: Table of contents is missing Focus On section:
Focus On Codes for Data Recording and Transmission 100
2A.1 Non-Return-to-Zero Code 100
2A.2 Non-Return-to-Zero-Invert Code 101
2A.3 Phase Modulation (Manchester Code) 102
2A.4 Frequency Modulation 103

2A.5	Run-Length-Limited Code	103
2A.6	Partial Response Maximum Likelihood Coding	104
2A.7	Summary	107
	Exercises	107

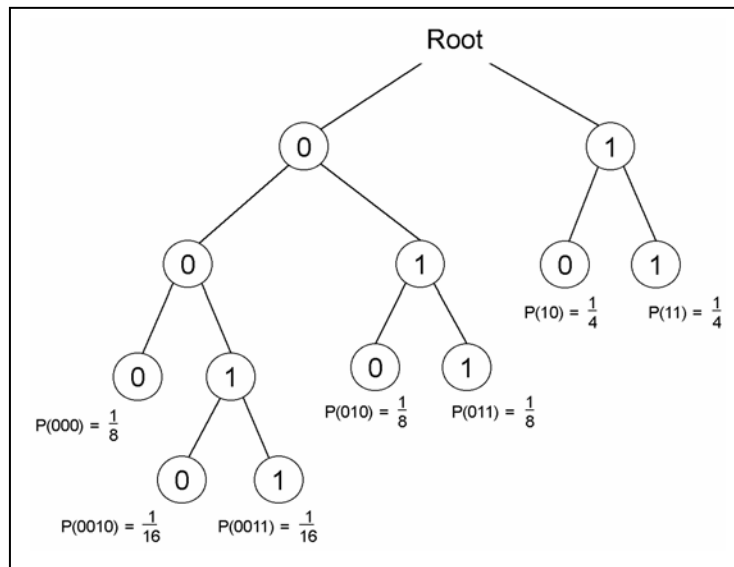
xxiii Chapter 3: Table of contents is missing Focus On section:

	Focus on Karnaugh Maps	163
3A.1	Introduction	163
3A.2	Description of Kmaps and Terminology	163
3A.3	Kmap Simplification for Two Variables	166
3A.4	Kmap Simplification for Three Variables	167
3A.5	Kmap Simplification for Four Variables	169
3A.6	Don't Care Conditions	173
3A.7	Summary	174
	Exercises	174

xxvi Chapter 7: Table of contents is missing Focus On section:

	Focus On Data Compression	384
7A.1	Introduction	384
7A.2	Statistical Coding	387
	7A.2.1 Huffman Coding	387
	7A.2.2 Arithmetic Coding	391
7A.3	Ziv-Lempel (LZ) Dictionary Systems	394
7A.4	GIF and PNG Compression	398
7A.5	JPEG Compression	399
7A.6	Summary	404
	Exercises	404

105 F2A.6: The node numbers are difficult to read because the lines were pushed into the nodes. The correct figure is as follows:



260 F5.3: There are double lines on the entries at locations 1000 and 1100. The correct figure is:

Memory			
800	900	R1 <table><tr><td>800</td></tr></table>	800
800			
...			
900	1000		
...			
1000	500		
...			
1100	600		
...			
1600	700		

277 P13 and P14: The tables have double lines, similar to the error above on page 260.

March 2006 List

134 t2: forces both Q and Q' to 1 → forces both Q and Q' to 0

134 t3: $1 = Q' \rightarrow 0 = Q'$

162 P49: Should have no blue diamond

163 P51: Should have no blue diamond

240 P19: For example, to multiple → For example, to multiply

April 2006 List

328 b6: George Amdahl → Gene Amdahl

May 2006 List

538 P2: personal computer, why do → personal computer. Why do

June 2006 List

5 T1.1: 1 quintillionth = 10^{+18} → 1 quintillionth = 10^{-18}

52 t7: $167 + 947 = 114$ → $167 + 947 = 1114$

140 t15: function, d → function, δ

August 2006 List

211 E4.1: 10A Jump Loop → 10F Jump Loop

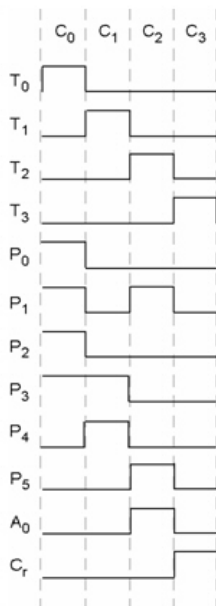
237 P6: 256KB × 8 RAM chips → 256K × 8 RAM chips

September 2006 List

216 t18: $P_0P_2T_1$: MBR $\leftarrow$ M[MAR] → $P_3P_4T_1$: MBR $\leftarrow$ M[MAR]

216 b12: At clock cycle C_1 , all signals except P_0 , P_2 , and T_1 are →
At clock cycle C_1 , all signals except P_3 , P_4 , and T_1 are

217 F4.16: In clock cycle C_1 , signals P_3 , P_4 , and T_1 should be high, nothing else, so replace Figure 4.16 with the following:



355 b6: spinning the disk faster → spinning the disk slower

March 2007 List

543 b14: System A is **n times as fast** as System B → System A is **n times faster than** System B

543 b6: performance of Car A is 1.25 times as fast as Car B → performance of Car A is 1.33 times faster than Car B

543 b5: $4/3 = 1.25 \rightarrow 4/3 = 1.33$

543 b3: Car A is also 25% faster than Car B → Car A is also 33% faster than Car B

543 b1: 25% → 33%

April 2007 List

5 b8: If a disk holds 1MB, then it holds 2^{30} bytes → If a disk holds 1MB, then it holds 2^{20} bytes

May 2007 List

63 t5: Examples using signed numbers are given → Examples using signed 2's complement numbers are given

63 T2.2: 0010 (-2) → 0010 (+2)

69 T2.4: for the 0.5 entry, replace the exponent 10000000 with 01111110

June 2007 List

477 f9.3: Three-Dimensional Hypercube → Four-Dimensional Hypercube

765 P7: 6×2^{24} → 6×2^{12}

October 2007 List

67 E2.27: Multiply → Assuming a 16-bit bias, multiply:

68: T2.3: In top row: 1000.001 → 10000.001

69: T2.4: Representation for 0.5: 10000000 → 01111110

122 t13: we AND the byte with 04h → we AND the byte with 04h (04_{16})

154 t24: Petgold, Charles → Petzold, Charles

November 2007 List

214 b1: P_0, P_1, P_0 → P_0, P_1, P_2

March 2008 List

304 t22: address 9 to the physical address 1230 → address 9 to the physical address 1239
