

<http://web.iitd.ac.in/~shouri/eel201/>
[/cep201/](http://web.iitd.ac.in/~shouri/eel201/)

Textbook :

Morris Mano

Digital Electronic Circuits

Shouri Chatterjee

July-December 2009

II - 244

(II - 311 II - 305)

Department of Electrical Engineering,

Indian Institute of Technology, Delhi,

Hauz Khas, New Delhi 110016



Binary Number System

0 → 9
10 → 99
100 → 999

0 → 1

10 → 11

100 → 111

1000 → 1111

Shouri Chatterjee

July-December 2009

Department of Electrical Engineering,

Indian Institute of Technology, Delhi,

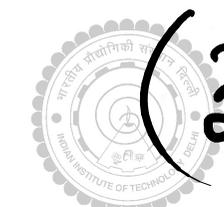
Hauz Khas, New Delhi 110016

1 0 0 1 0 1 1 0 1
↓ ↓ ↓ ↓ ↓
256 + 32 + 8 + 4 + 1 = 301

↑ ↑ ↑ ↑
8 4 2 1
↓
15

256 + 112 + 5 = 373

1 7 5



$(373)_d \Rightarrow (00101110101)_b$
0 5 6 5

OCTAL \rightarrow 0, 1, 2, 3, 4, 5, 6, 7

HEXADECIMAL \rightarrow 0-9, A, B, C, D, E, F

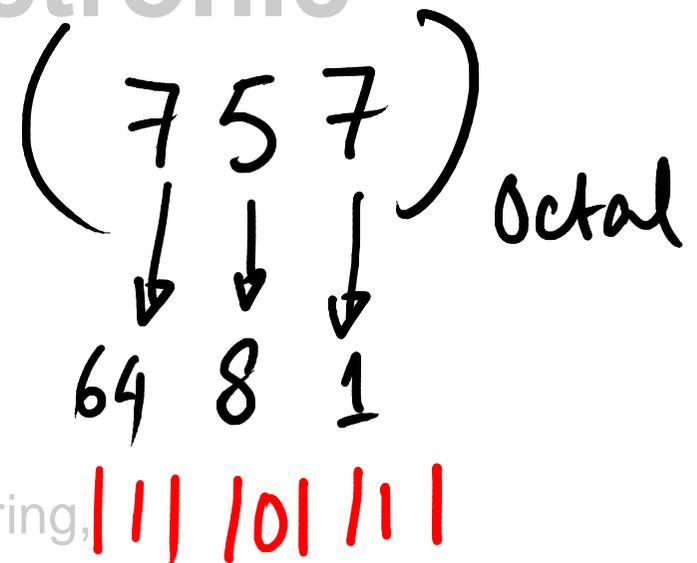
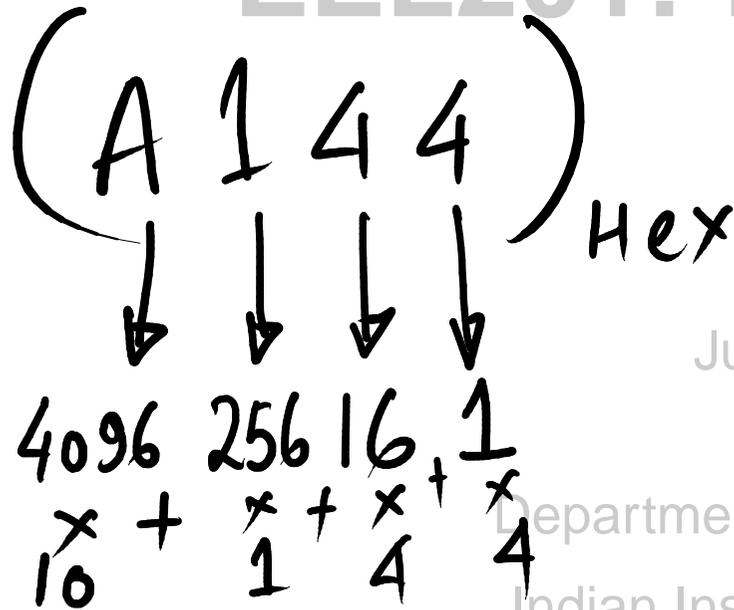
EEL201: Digital Electronic Circuits

Shouri Chatterjee

July-December 2009

Department of Electrical Engineering,
Indian Institute of Technology, Delhi,

Haftiz Khas, New Delhi 110016



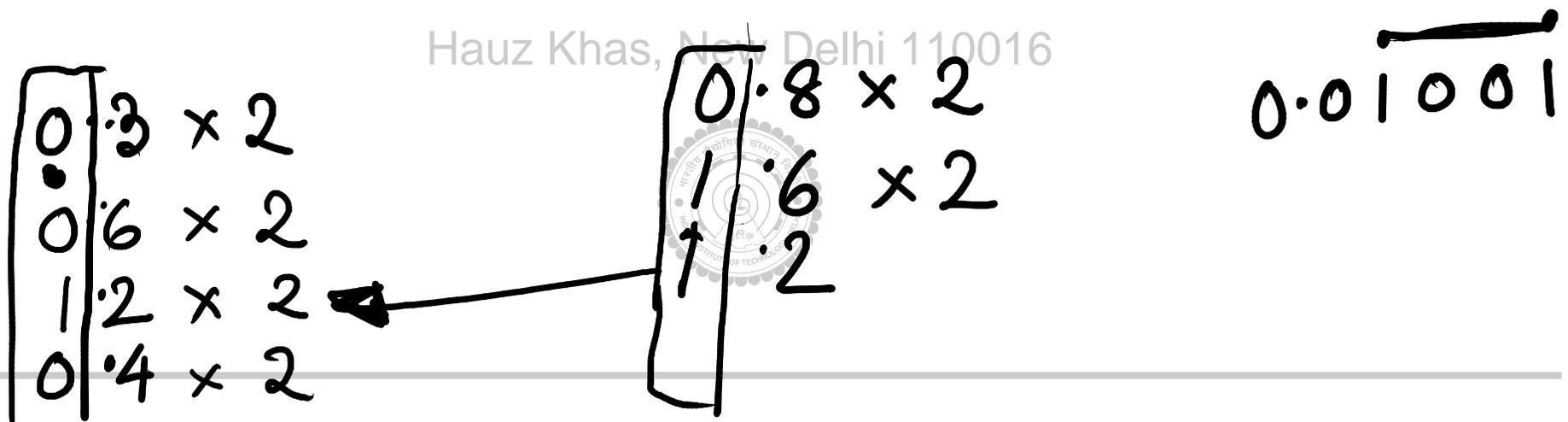
1010 0001 0100 0100

$$155.997 = 1 \times 10^2 + 5 \times 10^1 + 5 \times 10^0 + 9 \times 10^{-1} + 9 \times 10^{-2} + 7 \times 10^{-3}$$

EEL201: Digital Electronic Circuits

$$1011.001 = 1 \times 2^3 + 0 \times 2^2 + 1 \times 2^1 + 1 \times 2^0 + 0 \times 2^{-1} + 0 \times 2^{-2} + 1 \times 2^{-3}$$

$$0.3 \Rightarrow 0.01001 \dots ?$$



0.3



0.01001



EEL201: Digital Electronic
Circuits

0.010011001100110011

0.2 3 1 4 6

Shouni Chatterjee
July-December 2009

Department of Electrical Engineering,
Indian Institute of Technology, Delhi,
Hauz Khas, New Delhi 110016

