



Centro de Entrenamiento en Alta Tecnología (CEAT)

PADTS 20 Admission Exam Study Guide

There will be several topics covered in the exam. The notes or textbooks you used in these courses should be sufficient. It is just a review of the courses you should have already taken during your undergraduate degree.

The topics are:

- Computer Numeric Representations and Base Conversion
- Combinational Logic
- Sequential Logic
- Finite State Machines
- Basic C language programming including bit operations, loops and logical decisions
- Basic Concepts of Microprocessors and Microcontrollers
- Basic Concepts of Assembly Language Programming
- Basic Concepts of Digital Signal Processing

Suggested on-line open source resources

Digital Systems Design

MIT Open Courseware

<http://ocw.mit.edu/courses/electrical-engineering-and-computer-science/6-111-introductory-digital-systems-laboratory-spring-2006/>

Lecture Notes - L1, L2, L4, L6 (exclude Verilog), L7 (exclude Verilog), L8/9

Coursera

<https://class.coursera.org/digitalsystems-001>

C Language

C++ Institute

<http://education.cppinstitute.org/>

CLA - C Programming Language Certified Associate (Chapters 1 through 6)

MIT Open Courseware

<http://ocw.mit.edu/courses/electrical-engineering-and-computer-science/6-087-practical-programming-in-c-january-iap-2010/index.htm>

Lecture Notes 1-4