

# Programming Language Concepts Study Guide

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## Contents

<b>Scope</b>	<b>3</b>
Symbol Table . . . . .	3
Static . . . . .	3
Dynamic . . . . .	3
Binding: Shallow vs Deep . . . . .	3
Links . . . . .	3
<b>Lifetime</b>	<b>3</b>
<b>Memory Storage</b>	<b>3</b>
Static . . . . .	3
Stack . . . . .	3
Heap . . . . .	3
Something else . . . . .	3
<b>Tail Recursive Functions</b>	<b>3</b>
Definition . . . . .	3
Optimization . . . . .	3
<b>Parameter Passing</b>	<b>3</b>
Call By Value . . . . .	3
Call By Value Return . . . . .	3
Call By Reference . . . . .	3
Call By Name . . . . .	3
<b>Types</b>	<b>3</b>
Two's Complement . . . . .	3
Union Type . . . . .	3
Struct Type . . . . .	3
IEEE 32-bit Floating Point . . . . .	3

<b>Type Systems</b>	<b>3</b>
Typing Rules . . . . .	4
Proof Tree . . . . .	4
Constraints . . . . .	4

## Scope

Symbol Table

Static

Dynamic

Binding: Shallow vs Deep

Links

Determining Static Link

## Lifetime

## Memory Storage

Variable Declaration

Static

Stack

Heap

Something else

## Tail Recursive Functions

Definition

Optimization

## Parameter Passing

Call By Value

Call By Value Return

Call By Reference

Call By Name

## Types

Two's Complement

Union Type

Compiler Memory Layout

Struct Type

**Typing Rules**

**Proof Tree**

**Constraints**