

CSIS 4244 Exam 3 – Topics

Scheme

- Writing and tracing recursive functions
- Higher-order functions

Chapter 7 - Data Types, Compatibility, Arrays

- Type checking
- Coercion
- Arrays
- Pointers
- Dynamic data

Chapter 8 – Exception Handling

- Exceptions and exception handlers
- try - catch - finally
- Continuation vs. resumption models (retry)
- Binding exceptions to handlers
- Exception handling and dynamic scoping
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Chapter 12 – Concurrency

- Processes, tasks, threads
- Cooperation synchronization, competition synchronization
- Deadlock
- Critical section
- Semaphores, binary semaphores
- Monitors
- Message passing, rendezvous
- Java threads, synchronized
- Ruby threads
- Erlang, concepts and tracing