Quiz 2 Study Guide

Chapter 11: Intro to C

Interpretation vs. Compilation
C Compiler stages
main() function
I/O (printf & scanf)

Chapter 12: Variables

C Basic Data types
Properties of a variable (identifier, type, scope, storage)
Order of evaluation, precedence and associativity for assignment, equals, logical, bitwise, and relational operator. How is bitwise different from logical?
How global & local variables are put in memory (mainly ties in with chapter 14)
Compiler symbol table

Chapter 13: Control Structures

If-else, else-if
switch
while vs. for
break and continue (in what type of control structures can they be used)
Converting C control statements to LC3 and vice-versa (the code snippets will be small in the interest of time)

Chapter14: Functions

How do you write C functions (Covered in tutorial)?
What is an Activation Record? What does it contain? Why do we need it?
What is a frame pointer? and stack pointer?
How does the function call mechanism work (use my slides for this not the book)?

Chapter 16: Pointers & Arrays (only till section 16.3.3)

What is address operator “&” do?
What is pointer? How do you declare a pointer? What does it mean to deference a pointer? Problems with pointers?
How to declare & use arrays? How LC3 code looks for arrays?
Difference between pointer and array? and relationship between them?
Array bound checking in C
How are arrays passed to function? Why? (hint: what happens when you return from a function call)