Questions for exam:

1) Pointer

- What is a pointer?

- What are meaning of those operators (\*, &, ++) when they are associated with pointers:

int \*iptr, i;

\*ptr = 1;

&i

iptr++

- What is memory leak? What operations can cause memory leak?

2) OO concepts – inheritance and polymorphism, abstract function, virtual function, static binding,

dynamic binding,

3) Algorithms – use your own words to describe linearSearch, binarySearch, selectionSort,

BubbleSort, mergeSort and explain their time complexity (you don’t have to go through the detailed

model to derive the T(n), just some intuition to explain how you get the time complexity).

4) Other concepts:

- How Von neumman architecture works (the fetch-execute cycle)

- Stack overflow

- Constructors/destructors related questions (when do they get called? And the order they got

called)

I will ask one question from each category so there will be four questions in total for each person. If

your answer to that question is not satisfying, I will give you a second question from the same category

to make it up.

Comp Sci Exam is on 4/20/2021.