

COMPGC16/3011

Assignment Project Exam Help

<https://powcoder.com>

Add WeChat powcoder
Functional Programming

Revision Lecture 2014

The Exam 2014



❧ May 22nd 2014

Assignment Project Exam Help

❧ EXAMCHA – Chemistry Auditorium

<https://powcoder.com>

❧ 2½ hours

Add WeChat powcoder

❧ Answer 3 questions from 5

❧ Eg: 30 minutes reading + 40 minutes per question

❧ (about 1.2 minutes writing per mark)

❧ Timing!!! If part of a question is worth 10 marks, don't exceed 12 minutes !!!

How to gain marks



- ❧ Again - get you timing right!
Assignment Project Exam Help
- ❧ For each question, write as much as you can think of in connection with the question
<https://powcoder.com>
- ❧ Don't give one-line answers
Add WeChat powcoder
- ❧ Don't stop just because you think the question/answer is simple
- ❧ Be guided by timing (1.2 minutes per mark) but thereafter, the more you write the more marks you might gain.

Frequently Asked Questions



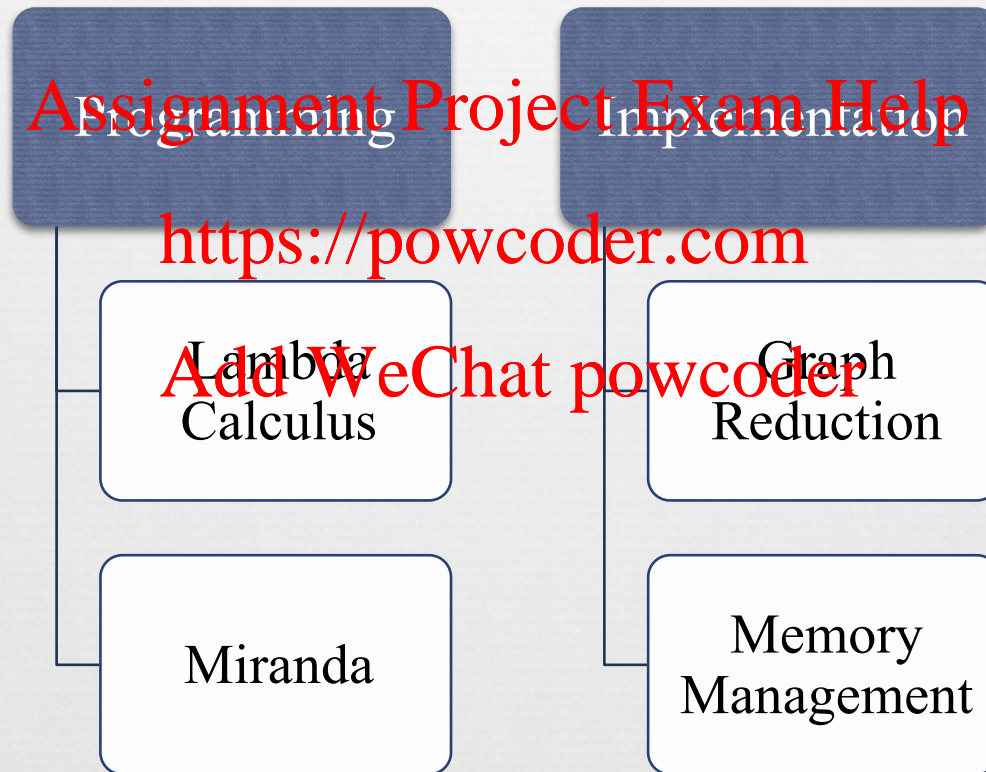
- ❧ Will the questions be like last year?
 - ❧ Yes and No. Similar structure, different questions.
- ❧ What kinds of question will you ask
 - ❧ See the past papers!!!
 - ❧ Analyse the last 7-10 years – it will be similar
 - ❧ Growing trend – more problem solving
 - ❧ Growing trend – more programming

Assignment Project Exam Help

<https://powcoder.com>

Add WeChat powcoder

Syllabus Reminder



Example revision topics (this is NOT a complete list)



- ❧ The Lambda Calculus – syntax; α , β , η , δ reduction; reduction orders (normal, applicative, parallel), normal forms (NF, WHNF, HNF); binding (“bound”, “free”)
<https://powcoder.com>
- ❧ Miranda – functions, types, type checking, accumulating parameter, parameter of recursion, forms of recursion, tuples, lists, recursive types, currying, partial functions, partial applications, pattern matching, structural induction, polymorphism, high-order functions, combinators, map, filter, foldr, foldl, algebraic types, linked lists, trees, sorted trees, functional representation of data
Add WeChat powcoder

Some revision topics (examples continued)



- Implementation – strict and lazy evaluation, combinators (fixed & variable set), graph reduction, shared pointers and cyclic pointers, tagged binary cells, redexes, roots and indirections, β reduction

Assignment Project Exam Help

<https://powcoder.com>

Add WeChat powcoder

- Automatic memory management – memory allocation, pointer-increment, free list, first-fit, next-fit, best-fit, coalescing, Knuth boundary tags, blocks, block headers, bits, fragmentation, compaction, garbage collection, mark-scan, two-space, reference counting, root pointers, comparison,

COMPGC16/3011

Assignment Project Exam Help

<https://powcoder.com>

Add WeChat powcoder
Functional Programming

Revision Lecture 2014