

PLEASE HAND IN

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UNIVERSITY OF TORONTO  
Faculty of Arts and Science

April 2016 Examinations

CSC 148H1S  
Duration — 3 hours  
No aids allowed.

Student Number: \_\_\_\_\_

Last Name: \_\_\_\_\_

First Name: \_\_\_\_\_

*Do not turn this page until you have received the signal to start.  
(In the meantime, please fill out the identification section above,  
and read the instructions below.)*

This exam consists of 7 questions on 15 pages (including this one).  
*When you receive the signal to start, please make sure that your copy  
of the exam is complete.*

Please answer questions in the space provided. You will earn 20% for  
any question you leave blank or write "I cannot answer this question,"  
on. You may earn substantial part marks for writing down the outline  
of a solution and indicating which steps are missing.

You must achieve 40% of the marks on this final exam, to pass this  
course.

Write your student number at the bottom of pages 2-15 of this exam.

There is a Python API at the end of this exam that you may tear off  
for reference.

# 1: \_\_\_\_\_ / 8

# 2: \_\_\_\_\_ / 6

# 3: \_\_\_\_\_ / 8

# 4: \_\_\_\_\_ / 8

# 5: \_\_\_\_\_ / 8

# 6: \_\_\_\_\_ / 8

# 7: \_\_\_\_\_ / 8

TOTAL: \_\_\_\_\_ / 54

Good Luck!