Rochester Institute of Technology
Department of Computer Science

Advanced C++ Programming and Design

Fall 2013

Travis E. Brown # Midterm

Score: ___KEY___ / 30

Long Answers Questions

Answer the questions in the spaces provided on the question sheets. If you run out of
room for an answer, continue on the back of the page.

1. (10 points) If you had to maintain an unsorted collection of data, and you had to insert and remove
elements from the middle of the collection, what container would you chose, and why?

Solution:
A list would be the container of choice because it efficiently adds elements to the middle of the list.
This works because a list actually implements a doubly linked list and no data has to be shifted in
order to add elements to the middle

Short Answer Questions

Write the correct answer in the space provided next to the question. Answers that are not legible or not made in the space provided will result in a 0 for that question.

2. (2 points) What is the answer to life, the universe, and everything?

   2. _____42_____

3. (2 points) In what year did Apollo 11 go to the moon?

   3. _____1969_____

4. (2 points) How long does it take for light to travel from the Sun to the Earth?

   4. _____8 minutes_____

5. (2 points) What... is the air-speed velocity of an unladen swallow?

   5. What do you mean? An African or European swallow?

6. (2 points) How old do you have to be to drink (legally) in the US? In Canada?

   6. _____21_____

   6. _____18_____

True/False Questions

Write 'True' or 'False' *clearly* in the space provided next to the question. Answer that are not legible or not made in the space provided will result in a 0 for that question.

7. (1 point) The sun appears bigger in the sky because it is closer than the moon.

7. _____False_____

8. (1 point) Dogs are better than cats in every way.

8. _____True_____

Multiple Choice Questions

Write the *best* answer in the space provided next to the question. Answer that are not
legible or not made in the space provided will result in a 0 for that question.

9. (2 points) What class would you use to write data to a file?

     A. ostream

     B. ifstream

     C. ofstream

     D. ffstream

     E. istream

9. _____C_____

10. (2 points) When is it ok to use friends functions in a class definition?

     A. wrong

     B. not right

     C. other

     D. still wrong

     E. Never

10. _____E_____

11. (2 points) When is it ok to use enemy functions in a class definition?

     A. when you feel like it

     B. on occasion

     C. sometimes

     D. always

     E. when the moon is full

11. _____D_____

12. (2 points) What class would you use to write data from stderr?

     A. istream

     B. ffstream

     C. ofstream

     D. ostream

     E. ifstream

12. _____D_____

Bonus Questions

13. (2 bonus points) A library gained fame by moving which celebrity's book from non-fiction to fiction in 2012?

      A. Beyonce

      B. Mitt Romney

      C. Lance Armstrong

      D. Rupert Murdoch

      E. Crocodile Dundee

13. _____C_____

14. (2 bonus points) The city of Tumbuktu is in what country?

      A. Mauitania

      B. France

      C. There is no such city

      D. Mali

      E. Morocco

14. _____D_____

15. (2 bonus points) What is the answer to life, the universe and everything?

15. _____42_____