Ex 6.6.1: This and the next exercises involve certain programs that operate on the two relations

Product (maker, model, type)
PC (model, speed, ram, hd, price)

from our running PC exercise. Sketch the following programs, including SQL statements and work
done in a conventional language. Do not forget to issue BEGIN TRANSACTION, COMMIT, and
ROLLBACK statements at the proper times and to tell the system your transactions are read-only
if they are.

a) Given a speed and amount of RAM (as arguments of the function), look up the PC’s with that
speed and RAM, printing the model number and price of each.

b) Given a model number, delete the tuple for that model from both PC and Product.

c) Given a model number, decrease the price of that model PC by $100.

d) Given a maker, model number, processor speed, RAM size, hard-disk size, and price, check that
there is no product with that model. If there is such a model, print an error message for the
user. If no such model existed in the database, enter the information about that model into the
PC and Product tables.

Ex 6.6.3: Suppose we execute as a transaction T one of the four programs of Exercise 6.6.1, while
other transactions that are executions of the same or a different one of the four programs may also
be executing at about the same time. What behaviors of transaction T may be observed if all the
transactions run with isolation level READ UNCOMMITTED that would not be possible if they
all ran with isolation level SERIALIZABLE? Consider separately the case that T is any of the
programs (a) through (d) of Exercise 6.6.1.