Quiz 6, Fall 2019
CSCI 4380 DB Sys
Time: 20 minutes

Name 1: _____ **RIN:** _____
Name 2: _____ **RIN:** _____
Name 3: _____ **RIN:** _____

Rules.

- Open book and notes. Do not use any electronic tools including your computer.
- You can talk to anyone in class. If you know the answer, help someone else in class.
- Each quiz must be by at least two and at most three people by people in classroom right now. Put your name on one quiz only.
- Quiz ends on time. No late papers will be accepted. By putting your name above, you agree that you understand this and have contributed to this quiz personally.

Question 1 (12 points). You are given a relation `T` where `PAGES(T)=80,000`.

What is the cost of sorting `T` if $M = 200$?

Question 2 (7 points). You are given the following information for relations `R` and `S`:

`TUPLES(R)=100,000, PAGES(R)=2,000, TUPLES(S)=10,000,000, PAGES(S)=50,000`

What is the cost of joining this relation if $M = 401$?

Question 3 (6 points). Suppose you are given the query plan in the figure below. Note that: $T = \Pi_{R.A,S.C,S.D}(R \bowtie S)$ (same `T` from Question 1 and `PAGES(T)=80,000` as in Question 1). Based on this, compute the overall cost of this query and show your work.