Quiz 6: Declarative Queries

Initial Score (out of 10)

Taken by: _______________________________________________________
Name                                      Student ID

- We will discuss the answers right after the quiz.
- You are to self-grade and record your actual initial score (above) as we do so.
- You should also record the correct answers for any problems that you miss.
- A full 10 points for taking this quiz will be included as part of your quiz grade.

Consider the following schema, where the key field(s) are underlined (e.g., sid is the key for Supplier), and the domain of each field is listed after the italicized field name. The Catalog relation lists the prices charged for parts by Suppliers. Write the following queries in the indicated language (either the tuple relational calculus, denoted TRC, or SQL).

**Suppliers (sid: integer, sname: string, address: string)**
**Parts (pid: integer, pname: string, color: string)**
**Catalog (sid: integer, pid: integer, cost: decimal(8,2))**

1) **[SQL]** Find the pnames of parts for which there is some supplier. (2 Pts)

2) **[TRC]** Find the snames of Suppliers who supply a yellow part that costs < 100. (2 Pts)
3) [SQL] Find the \textit{sids} of suppliers who supply a yellow part and a blue part. (2 Pts)

4) [TRC] Find the \textit{snames} of suppliers who supply ONLY purple parts. (2 Pts)

5) [SQL] Find the \textit{sid} of a supplier who supplies the most expensive red part along with the \textit{pname} of the part. (2 Pts)