

ICS 424-Quiz #2 - (3%)

Time: 15 minutes

Student ID: _____

Student Name: _____

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1. Find the best execution plan possible using heuristic optimization. (Show all your optimization steps and explain the reason behind each optimization step)

```
SLECET e.name  
FROM employee e, dept d  
WHERE e.dno = e.dno  
AND d.dname = "Research"  
AND e.dob "15-10-1970" AND e.dob <= "15-10-1971";
```

2. Assume the following parameters of a STUDENTS table:

Number of records:	100,000,000
Number of data records per block:	25
Number of B+tree index records per block:	200

If the B+tree index is based on the primary key of the STUDENTS table, what is the minimum number of disk blocks access needed to answer the following query?

```
SELECT count(*)  
FROM students;
```