

COMP9315 DBMS Implementation

Final Exam

[\[Instructions\]](#) [\[Notes\]](#) [\[PostgreSQL\]](#) [\[C\]](#)
[\[Q1\]](#) [\[Q2\]](#) [\[Q3\]](#) [\[Q4\]](#) [\[Q5\]](#) **[\[Q6\]](#)** [\[Q7\]](#) [\[Q8\]](#)

Question 6 (3 marks)

Consider the following tuple space for a relation $T(A, B)$ which has been indexed/partitioned by a quad-tree.



- a. How many nodes are in the quad-tree?
- b. If we ask the query `select * from R where A > 40 and B < 'f'`, then which quadrants (and sub-quadrants and ...) would need to be examined?
- c. How many tuples (appearing as x's on the diagram) would be in the result set?

Show all working.

Instructions:

- Type your answer to this question into the file called `q6.txt`
- Submit via: **give cs9315 exam_q6 q6.txt**
or via: Webcms3 > exams > Final Exam > Submit Q6 > Make Submission

End of Question