

3. Specify the following queries in relational algebra for the COMPANY database (Figure 1).
- (a) Retrieve Social Security Numbers of all employees whose first name is 'Graham'. [6]
  - (b) Retrieve names of Alan J. Baker's dependents. [6]
  - (c) Retrieve the last names of all employees supervised by the manager of Department No. 3. [6]
  - (d) Find the last names of employees who work on all the projects controlled by Department No. 1. [7]

**Total mark for this question: 25**