

Question 1.

$D.Name \text{ G}_{\max}(S.Salary)(\Pi_{D.Name}(\sigma_{S.DepartmentID = D.DeptID}(\rho_S(staff) \times \rho_D(departments))))$

Question 2.

$G_{\text{avg}}(Salary)(pilots)$

Question 3.

$\Pi_{P.FirstName, T.TripID, T.DeptDate}(\sigma_{P.PilotID = F.PilotID \wedge T.TripID = F.TripID \wedge T.DeptTown = 'San Jose' \wedge (T.ArrTown = 'New York' \vee T.ArrTown = 'El Paso') }(\rho_P(pilots) \times \rho_T(trips) \times \rho_F(flies))$

Question 4.

$\Pi_{AirCraftID}(\sigma_{DeptTown = 'New York'}(trips)) \cup$

$\Pi_{AirCraftID}(\sigma_{ArrTown = 'New York'}(trips))$

Question 5.

$temp \leftarrow G_{\text{avg}}(Salary)(pilots)$

$\Pi_{LastName, StaffID, Salary}(\sigma_{Salary > temp}(staff))$