Question 1.

D.NameGmax(S.Salary)(∏ D.Name(σS.DepartmentID = D.DeptID(ρS(staff) X ρD(departments))))

Question 2.

Gavg(Salary)(pilots)

Question 3.

∏ P.FirstName, T.TripID, T.DeptDate(σP.PilotID = F.PilotID Λ T.TripID = F.TripID Λ T.DeptTown = ‘San Jose’ Λ (T.ArrTown = ‘New York’ V T.ArrTown = ‘El Paso’) (ρP(pilots) X ρT(trips) X ρF(flies))

Question 4.

∏ AirCraftID(σDeptTown = ‘New York’(trips)) U

∏ AirCraftID(σArrTown = ‘New York’(trips))

Question 5.

temp ←Gavg(Salary)(pilots)

∏ LastName, StaffID, Salary(σSalary > temp(staff))