Extended SQL

The following relations are given (primary keys are underlined, optional attributes are denoted with *):

Customer(CustomerID, CustomerSurname, Province, Region)
Category(CategoryID, CategoryName)
Agent(AgentID, AgentSurname, Agency)
Time(TimeID, Month, Quarter, Semester, Year)
Sales(TimeID, CustomerID, ItemCategoryID, AgentID, TotAmount, NumSoldItems, TotDiscount)

a) Show for each category of items,
   • The category
   • The total sale amount for the category
   • The total number of sold items within the category
   • The rank of the category according to its total sale amount
   • The rank of the category according to its total number of sold items
   • Sort the result for increasing value of total number of sold items within the category

b) Show, for each province
   • The province
   • The region of the province
   • The total sale amount for the province
   • The rank of the province according to its total sale amount, separately for each region

c) Show, for each province and month
   • The province
   • The region of the province
   • The month
   • The total sale amount for the province in the current month
   • The rank of the province according to its total sale amount, separately for each month

NB: The same month, in different years, should be managed as a different month. For example, the month January in 2007 is different from the month January in 2006.

d) Show, for each region and month
   • The region
   • The month
   • The total sale amount for the region in the current month
   • The cumulative sale amount for increasing months, separately for each region

NB: The same month, in different years, should be managed as a different month. For example, the month January in 2007 is different from the month January in 2006.