PART-1

Q1) Describe shortly Apriori Analysis; type of data, goals and types of applications.

Answer:

(i) Data:

Apriori Analysis is designed to operate on databases containing "transactions" i.e. "Transactional Database" is used here. Each transaction is seen as a list of items (an itemset). If a relational data base is used, then it must be transformed into set of transactions.

(ii) Goals:

The goal of Apriori Analysis is as follows:

→ To find the set of "frequent items" i.e. the set of items that have minimum support. "Apriori Algorithm" is used to do this process.

→ To find the set of "strong association rules" (if required). We use the frequent itemsets to generate associate rules.

(iii) Main Applications:

The following are the applications of Aprion Analysis:

⮡ It is important for effective Market Basket Analysis and it helps the customers in purchasing their items with more ease, which increases sales of the markets.

⮡ Useful in finding and analysing "buying patterns".

⮡ Useful is improving "shelving patterns" in big stores.

⮡ Useful to improve "target marketing" by connecting Clients data with their buying patterns.

⮡ Useful in medical field, for example "Analysis of patients database"

⮡ Used in many big companies like Google for "auto-complete feature" and by Amazon for "Recommender system".