

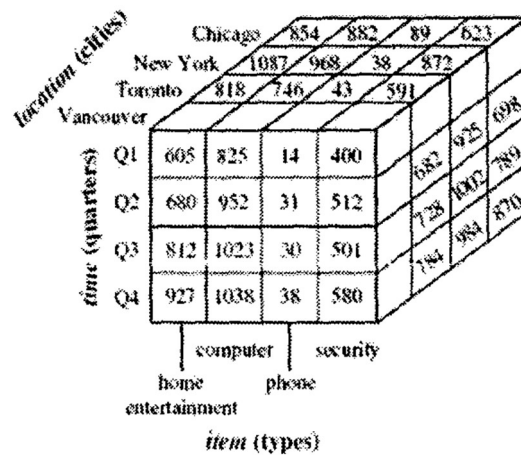
AF-140

April-2018

M.Sc., (CA & IT) Integrated, Sem.-VIII**Business Management
Data Warehouse & Data Mining****Time : 3 Hours]****[Max. Marks : 100**

1. Answer the following questions :

- (1) State the difference between Operational Systems and Data Warehouses. **5**
- (2) What is data cube? Perform OLAP Operations on following data cube : **5**



- (3) State the difference between ROLAP vs. MOLAP **5**

OR

List down the types of Schemas. Explain any two of them.

- (4) Explain Starnet Query Model for Querying Multidimensional Databases. **5**

2. Answer the following questions :

- (1) Define following : **5**
- (a) Data Cleaning (b) Noise (c) Data Quality
- (d) Apex Cuboid (e) Wavelet Transform
- (2) Explain Attribute Subset Selection Method of Data Reduction in detail. **5**

OR

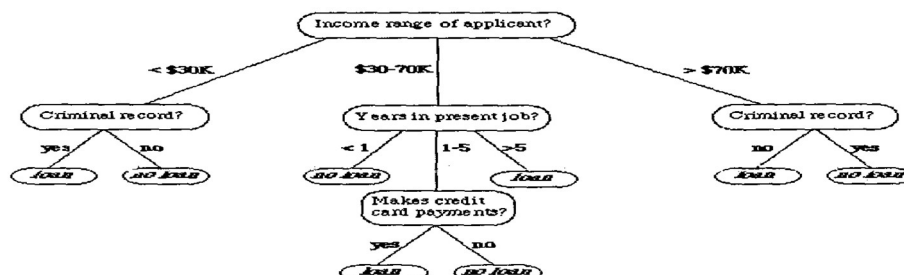
Explain Sampling method of Data Reduction in detail.

- (3) Explain the following terms : 5
- (a) Outlier Analysis
- (b) Transactional Data
- (4) Explain Data mining application in Financial Data Analysis. 5

OR

Explain Data mining application in Science and Engineering.

3. Answer the following questions :
- (1) Explain Market Basket Analysis. Explain how Association rule is constructed. Also, explain formula based on support and confidence. 10
- (2) Define the following terms : (Each carries 5 marks) 10
- (a) Frequent Item-set.
- (b) Apriori Alogorithm.
4. Answer the following questions:
- (1) Define Classification. Explain General Approach to Classification used in Data Analysis. 7
- (2) Explain tree pruning technique in detail. 7
- (3) Perform Rule Extraction from a Decision Tree given below: 6



5. Answer the following questions : (any **four**) 20
- (1) What do you mean by attribute ? Explain Nominal and Ordinal attribute with proper example.
- (2) Explain the aspect with which clustering methods can be compared.
- (3) Explain the requirements of clustering in data mining.
- (4) What is outlier? Explain the Supervised and Semi-supervised outlier detection methods.
- (5) Discuss the challenges of outlier detection.