B.Tech III Year II Semester (R09) Supplementary Examinations December 2016
DATA WAREHOUSING & DATA MINING
(Information Technology)

Time: 3 hours   Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks
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1 (a) Explain about concept hierarchy generation of categorical data.
   (b) Discuss the data mining as a step in the process of knowledge discovery.

2 (a) Explain how to compute iceberg cubes by using BUC and star-cubing algorithms.
   (b) Write a short note on data cube computation and data generalization.

3   Write the apriori algorithm and mine the frequent patterns in the following transaction dataset using apriori
        algorithm.

TID	List of item ids
T1	I1, I2, I5
T2	I2, I4
T3	I2, I3
T4	I1, I2, I4
T5	I1, I3
T6	I2, I3
T7	I1, I3
T8	I1, I2, I3, I5
T9	I1, I2, I3

Table: Transactional data for an All electronics branch.

4 (a) Discuss about back propagation classification.
   (b) List and explain the weaknesses of decision trees.

5   Briefly outline how to compute the dissimilarity between objects described by the following types of
        variables:
   (a) Numerical (interval-scaled) variables.
   (b) Asymmetric variables.
   (c) Categorical variables.
   (d) Ratio-scaled variables.
   (e) Non metric vector objects.

6 (a) Write about Lossy counting algorithm.
   (b) Explain k median-based stream clustering algorithm.

7 (a) Given an example for generalization-based mining of plan databases by divide-and-conquer.
   (b) Explain spatial data cube construction and spatial OLAP with an example.

8 (a) Briefly write about data mining application in biological data analysis.
   (b) List and explain any two data mining system products.

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