

SARDAR PATEL UNIVERSITY
Programme & Subject: M.Sc (QPM)
Semester: III
Syllabus with effect from: June - 2015

Paper Code: QP - 302	Total Credit:
Title Of Paper: Knowledge Discovery and Data Mining	

Unit	Description in Detail	Weightage (%)
I	Review of classification methods from multivariate analysis, classification and decision trees. Clustering methods from both statistical and data mining view points.	[10]
II	Unsupervised learning from univariate and multivariate data, dimension reduction and feature selection.	[10]
III	Supervised learning from moderate to high dimensional input spaces, artificial neural networks and extensions of regression models, regression trees	[10]
IV	Introduction to databases, including simple relational databases, data warehouses and introduction to online analytical data processing. (Revision) Association rules and prediction, data attributes, applications to electronic commerce	[10]

Basic Text & Reference Books:-

- Berson, A. and Smith, S.J. (1997). Data Warehousing, Data Mining, and OLAP. McGraw-Hill.
- Breiman, L., Friedman, J.H., Olshen, R.A. and Stone, C.J. (1984). Classification and Regression Trees. Wadsworth and Brooks/Cole.
- Han, J. and Kamber, M. (2000). Data Mining; Concepts and Techniques. Morgan Kaufmann.
- Mitchell, T.M. (1997). Machine Learning. McGraw-Hill.
- Ripley, B.D. (1996). Pattern Recognition and Neural Networks. Cambridge University Press.

