**MAHATMA GANDHI UNIVERSITY**
**MCA   DEGREE EXAMINATION**
**MODEL QUESTION PAPER**
**(2011 Revised Syllabi)**
**Fifth semester**
**MCA 504 DATA MINING**

**Time : Three hours**                                                              **Maximum : 75 Marks**
**Part A**
**Answer any ten questions.**
*Each question carries 3 marks.*

1.      What are Data warehouses?
2.      Explain Snowflakes and Fact Constellations.
3.      Define hierarchical clustering.
4.      What is outlier analysis?
5.      Explain the features of Density-based clustering methods.
6.      Compare and contrast classification and clustering.
7.      Briefly discuss frequent item set mining.
8.      Describe the Data Cube technology with an example.
9.      Explain the issues related to classification and prediction.
10.     Discuss any 3 data mining task primitives.
11.     List any six applications of data mining.
12.     Discuss major issues of data mining.                                **(10 x 3 = 30 marks)**

**Part B**

*All questions carry equal marks.*

13.a)   What is Decision Tree Induction? Explain basic algorithm for inducing a decision tree from
        training tuples.
**OR**
  b)    What is prediction? Discuss the use of regression techniques for prediction?

14.a)   Describe the methods for the generation of concept hierarchies for categorical data?
**OR**
  b)    Describe the features of partition based clustering algorithms.

15.a)   Describe the various functionalities of Data mining as a step in the process of knowledge
        discovery.
**OR**
  b) Explain the Apriori algorithm.  Also explain how the association rules are generated from
        frequent item sets.

16.a)   Write and explain any one algorithm for classification.
**OR**
  b)    Discuss briefly the different steps in preprocessing of data.

17.a)   Briefly discuss the architecture of data mining system.
**OR**
  b)    What is meant by dimensionality reduction? Discuss any 2 methods.

                                                                            **(5 X 9 = 45 marks)**