BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: MCA **SEMESTER : III/V**
BRANCH: MCA **SESSION : MO/18**

SUBJECT: MCA7107 DATAMINIG AND WAREHOUSING

TIME: 3 HOURS **FULL MARKS: 60**

INSTRUCTIONS:
1. The question paper contains 7 questions each of 12 marks and total 84 marks.
2. Candidates may attempt any 5 questions maximum of 60 marks.
3. The missing data, if any, may be assumed suitably.
***4*. Before attempting the question paper, be sure that you have got the correct question paper.**
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

Q.1(a) Illustrate the motivations behind Data Mining. How it is so important in the context of current developments of Database Technologies? [6]

Q.1(b) Discuss and Compare different data models used for designing Datawarehouse with suitable examples. [6]

Q.2(a) What are the major issues in Datamining in the context of mining methodologies? Explain. [6]

Q.2(b) Differentiate between the following using suitable example: [6]
i) Classification and Regression ii) Data Characterization and Data Discrimination

Q.3(a) In the context of applying Apriori Property, [6]
illustrate the following:
i) The Join Step ii) The Prune Step

Q.3(b) Explain a frequent itemset mining method that uses a Pattern -Growth approach. [6]

Q.4(a) Summarize at least four aspects with which clustering methods can be compared. [6]

Q.4(b) Write and illustrate a partition-based clustering technique. [6]

Q.5(a) Explain at least two measures of interestingness used by data miners to form a rule in association rule mining. [6]

Q.5(b) What is Concept hierarchy? Illustrate with suitable example. [6]

Q.6(a) Write an algorithm to generate a decision tree from a given training tuples of data partition. [6]

Q.6(b) Differentiate between Information Gain and Gain Ratio used in Decision Tree construction as attribute selection measures. [6]

Q.7(a) Write short notes on Temporal Association rule mining. [6]

Q.7(b) Discuss the following [6]
i) Spatial Clustering ii) Spatial trends

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