

END TERM EXAMINATION

SEVENTH SEMESTER [B.TECH] NOVEMBER-DECEMBER 2018

Paper Code: ETCS-413 Subject: Data Mining and Business Intelligence

Time: 3 Hours

Maximum Marks: 75

Note: Attempt any five questions including Q no.1 which is compulsory.

- Q1 Answer **all** the following questions in brief:- (10x2.5=25)
- (a) What is Data warehouse? Discuss its characteristics.
 - (b) What are the basic difference between OLAP and Data mining?
 - (c) What is Dimensional modeling and how it is different from the E-R Model?
 - (d) What is data granularity in Data Warehouse?
 - (e) What is Data Mart? Differentiate between dependent and independent Data marts?
 - (f) How decision tress assist in the process of data mining?
 - (g) Give two major differences between STAR schema and Snowflake schema?
 - (h) Differentiate between drill down, rollup and slice and dice operations?
 - (i) Explain the benefits of OLAP?
 - (j) What are the characteristics of strategic information?
- Q2 State all the guidelines of Dr. Codd's for a DBMS system giving brief description about each? (12.5)
- Q3 (a) What is Data Mining? Explain all the techniques of data mining in detail or with diagram? (7.5)
- (b) What are HYPERCUBE? How do they apply in OLAP? (5)
- Q4 (a) What are the basic components of data warehouse explain with the help of diagram? (6.5)
- (b) Explain Dimension Table in wide, the fact table is Deep. What is Fact less Fact Table? (6)
- Q5 What are the various ways by which corporate can provide strategic information for decision making? Explain each in detail? (12.5)
- Q6 (a) Explain the applications of data mining for Telecommunication industry? (5)
- (b) Explain with diagram, Knowledge discovery phase? (7.5)
- Q7 (a) What is meta data? Why it is important? Discuss the multidimensional data. What are the various types of meta data? (7.5)
- (b) Differentiate between operational system and information system. (5)
- Q8 Explain the following in detail:- (2.5x5=12.5)
- (a) MOLAP
 - (b) ROLAP
 - (c) Neural Networks
 - (d) Genetic Algorithms
 - (e) Information Package

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