Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 2

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B.Sc.(IT) (2015 & Onward)   (Sem.–5)
# DATA WAREHOUSING AND MINING
Subject Code : BSIT-504
Paper ID : [74378]

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains SIX questions carrying TEN marks each and students have to attempt any FOUR questions.**

SECTION-A

1. **Answer briefly :**

    a) Write any two characteristics of a data warehouse.

    b) Write any two applications of market basket analysis.

    c) Define support and confidence in the context of association rule mining.

    d) Mention the constraints that are applicable in constraint based association mining.

    e) Define OLTP.

    f) What is the purpose of classification?

    g) Write names of any four clustering algorithms.

    h) Give four examples where prediction technique is useful.

    i) What is cross validation?

    j) Why is data transformation required?

SECTION-B

Q2. Why do we need data warehousing? Discuss the characteristics of a data warehouse. (4,6)

Q3. Explain the working of the Apriori algorithm with the help of an example. (10)

Q4. Write down the steps for building a data warehouse. (10)

Q5. Give example of multidimensional data. Discuss the schemas for representing multidimensional data. (1,9)

Q6. Explain the different data mining techniques. How to choose the best technique for a task? (8,2)

Q7. Differentiate between classification and clustering. Explain any one clustering algorithm. (4,6)