

## DHARMSINH DESAI UNIVERSITY, NADIAD FACULTY OF TECHNOLOGY B.TECH. SEMESTER VII [I.T]

SUBJECT: (IT-704) Data Analysis & Information Extraction

## **INSTRUCTIONS:**

- 1. Figures to the right indicate maximum marks for that question.
- 2. The symbols used carry their usual meanings.
- 3. Assume suitable data, if required & mention them clearly.
- 4. Draw neat sketches wherever necessary.

| Q.1 | Do as directed.   |      |
|-----|---|------|
| Q.1 | (a) What is a cluster analysis? A clustering in data-mining is an unsupervised learning. :  Justify | [2]  |
|     | (b) Differentiate between query-driven approach and update-driven approach                          | [2]  |
|     | (c) What is bagging and boosting? Explain with example.   | [2]  |
|     | (d) What do you mean by subject-oriented data in a data warehouse?                                  | [2]  |
|     | (e) Define data mining.   | [2]  |
|     | (f) Why do we require separate data warehouse?  | [2]  |
| Q.2 | Attempt <i>Any Two</i> from the following questions.  | [12] |
|     | (a) Explain Bayesian Classification Technique.  | [6]  |
|     | (b) Explain BIRCH & CURE algorithm.   | [6]  |
|     | (c) Explain any two partitions based clustering technique.  | [6]  |
| Q.3 | (a) Explain KDD process with figure.  | [6]  |
|     | (b) Explain various types of concept hierarchy.   | [6]  |
| OR  |   |      |
| Q.3 | (a) Differentiate between OLTP & OLAP.  | [6]  |
| -   | (b) Explain various technique of dimension reduction.   | [6]  |