

Time: 3 hours

Max. Marks: 60

All questions carry equal marks

SECTION – A

(Answer the following: (05 X 10 = 50 Marks))

- 1 (a) A data warehouse is a key technology in a decision support system. Justify this statement.
(b) Discuss briefly the various applications of data warehouse.
OR
- 2 (a) The organizational memory is an important prerequisite for organizational learning. Explain with suitable example.
(b) Give reasons why data management is important to any organization.
- 3 Explain the roles and responsibilities of various users (including administrators) of a database system.
OR
- 4 Explain how data is shared between different levels within and across organizations.
- 5 Give an outline of the various multi-dimensional data structures.
OR
- 6 (a) Explain briefly the different types of meta data.
(b) Give an overview of importance of meta data.
- 7 Explain the steps involved in building a data warehouse.
OR
- 8 Explain the data warehouse designing methodologies.
- 9 Consider the dataset given below and construct decision tree using information gain.

Index	A	B	C	D	E
1	4.8	3.3	1.8	0.3	Positive
2	5	3	1.5	1.3	Positive
3	5	3.3	1.5	0.3	Positive
4	5.2	3.5	1.4	0.3	Positive
5	5.2	3.3	1.3	0.3	Positive
6	4.7	3.2	1.5	0.3	Positive
7	4.8	3.1	1.5	0.3	Negative
8	5.4	3.4	1.4	0.5	Negative
9	6.4	3.2	4.6	1.5	Negative
10	6.9	3.2	4.6	1.6	Negative
11	5.3	2.8	4.8	1.3	Negative
12	4.6	2.3	4.1	1.6	Negative

OR

- 10 Give a short overview of Feedforward neural network, multilayer perceptron and backpropagation method.

SECTION – B

(Compulsory question, 01 X 10 = 10 Marks)

11 Case Study:

Design a data warehouse for retail store and explain its components and suggested data marts.
