

21AI641

Sixth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025 **Business Intelligence**

Time: 3 hrs. Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain four step decision making process adopted by managers. (06 Marks)
 - b. Describe why to use computerized Decision Support Systems (DSS). (07 Marks)
 - c. Define Business Intelligence (BI) and with a diagram discuss a High-Level Architecture of BI along with its components. (07 Marks)

OR

- 2 a. Explain a decision support framework by Gory and Scott-Morten. (06 Marks)
 - b. Discuss computer support for structured, unstructured and semi-structured decisions.

(07 Marks)

c. Define Decision Support Systems (DSS) and with a diagram discuss a High Level Architecture of DSS along with its components. (07 Marks)

Module-2

- a. Define Decision Making and describe characteristics of Decision Making. (04 Marks)
 - b. Define Model and illustrate the four Decision-Making Models and benefits of models.

(08 Marks)

c. Explain Simon's Four Phases of Decision Making. (08 Marks)

OR

4 a. With neat diagram, illustrate the components of Decision Support Mathematical Models.

(06 Marks)

- b. In the context of Decision Making, discuss multiple goals, sensitivity analysis, what-if analysis, and goal seeking. (06 Marks)
- c. With a diagram, explain decision-making modeling process.

(08 Marks)

Module-3

- 5 a. Define data warehouse and discuss characteristics of data warehousing. (06 Marks)
 - b. With diagrams, in brief illustrate data warehousing architectures.

(06 Marks)

c. With neat diagram, illustrate data warehouse framework and views.

(08 Marks)

OR

6 a. Explain the Inmon and the Kimball models for data warehouse development approaches.

(08 Marks)

- b. Describe Extraction, Transformation and Load (ETL) Process with diagram. (08 Marks)
- c. Distinguish between Data Mart, Operational Data Stores (ODS) and Enterprise Data Warehouses (EDW). (04 Marks)

Module-4

a. Define knowledge and with diagram depict relationships among data, information and knowledge. Also discuss characteristics of knowledge.
b. Distinguish between explicit knowledge and tacit knowledge.
c. Explain the two fundamental approaches to knowledge management.
(08 Marks)
(08 Marks)

OR

8 a. Explain Knowledge Management System (KMS) cycle with neat diagram.
b. Describe how AI and intelligent agents support knowledge management.
c. Write a note on knowledge management systems implementation.
(08 Marks)
(06 Marks)

Module-5

9 a. Define Expert Systems (ES) and explain the features of ES.
b. List applications of Expert Systems (ES).
c. With a neat diagram, illustrate structure/architecture of an expert system.
(06 Marks)
(08 Marks)

OR

a. Define knowledge engineering. Discuss five major activities in knowledge engineering.

(06 Marks)

b. Write a note on problem areas suitable for expert systems.

c. Describe the critical success factors of Expert Systems (ES).

(08 Marks)

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