

Program: T.Y.B.Sc. IT **Semester:** VI **Program Code:** 1S00256
Course: Business Intelligence and Data Analytics **Course Code:** USIT603
Duration: 2 ½ Hours **Examination Pattern:** REV23 - Autonomous - External **Max. Marks:** 75

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Draw neat diagrams wherever necessary.

Examination:

REGULAR

- Q. 1 Answer the following (any three) [15]**
- (a) Explain the types of Decision based on Nature.
 - (b) Define the terms: i) Data ii) Information iii) Knowledge.
 - (c) Describe Business Intelligence architecture. Explain its components and significance.
 - (d) Explain extended structure of the Decision Making Process.
 - (e) What is Business Intelligence? Why are effective and timely decisions essential for organizations?
 - (f) Explain the phase for Development of decision support system (DSS).
- Q. 2 Answer the following (any three) [15]**
- (a) Illustrate the embedded method, explain with three search schemes.
 - (b) Explain any five data mining techniques in detail.
 - (c) Write the difference between supervised learning and unsupervised learning.
 - (d) Define data validation and explain factors weakening the data quality.
 - (e) What is incomplete data? Define techniques to complete the data.
 - (f) Explain data discretization also explain three main techniques.
- Q. 3 Answer the following (any three) [15]**
- (a) Define any types of classification:- I) Regression model II) Probabilistic model
 - (b) Write short note on neural network.
 - (c) Explain factors for evaluating classification model.
 - (d) Define process involved for clustering.
 - (e) Explain Evaluation of clustering models.
 - (f) Describe sampling with context to BI.
- Q. 4 Answer the following (any three) [15]**
- (a) Write a short note on the Customer Lifetime Value (CLV) graph.
 - (b) Explain the Relational Marketing Analysis Cycle.
 - (c) Write a short note on Market Basket Analysis.
 - (d) Explain the functions performed to manage sales forces.
 - (e) List the functional areas of Production and Logistics Management.
 - (f) Explain the benefits of Business Intelligence in Supply Chain Management.

Q. 5 **Answer the following (any three)**

[15]

- (a) Write a short note on TensorFlow.
- (b) Explain the structure of an Expert System.
- (c) Analyze and state the activities involved in Knowledge Management.
- (d) Explain the KDD process and justify its significance in Business Intelligence systems.
- (e) Evaluate the role of people in successful Knowledge Management implementation.
- (f) Explain applications of Artificial Intelligence in business environments.

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