

Mumbai University

May - 2019

B.Sc.IT: SEMESTER – VI

(QUESTION PAPER)

[CBCS – Choice Based]

**BUSINESS
INTELLIGENCE**

BUSINESS INTELLIGENCE

MAR – 2019 | CBCS – CHOICE BASED

MUMBAI UNIVERSITY
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Time: 2 ½ Hours

Total Marks: 75

NOTE:

- (1) All questions (Q.1 to Q.5) are compulsory.
- (2) Figures on the right indicate total marks. All sub-questions carry equal marks.
- (3) Write the question numbers clearly as mentioned in the Question Paper.
- (4) Mixing of sub-questions is not allowed.
- (5) Draw diagrams and give examples whenever necessary.
- (6) Use of calculator or any other electronic gadget is not allowed.

Q.1 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

- (A) What is Business Intelligence? Explain Architecture of the Business Intelligence. (5)
- (B) Explain different phases in development of Business Intelligence System. (5)
- (C) What is Decision Support System (DSS)? What are the factors that affect the degree of success of a DSS? (5)
- (D) Explain classification of Decisions according to their Nature and Scope. (5)
- (E) Define System. Explain Closed Cycle and Open Cycle System with suitable example. (5)
- (F) Describe the Phases in the Development of a Decision Support Systems (DSS). (5)

Q.2 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

- (A) What are the Phases in the Development of Mathematical Models for Decision Making? (5)
- (B) Explain the Divisions of Mathematical Models according to their Characteristics, Probabilistic Nature, and Temporal Dimension. (5)
- (C) What is Data Mining? List the Real Life Applications of Data Mining. (5)
- (D) Explain Categorical and Numerical Attributes with proper examples. (5)
- (E) Differentiate between Supervised and Unsupervised Learning. (5)
- (F) Explain the following Normalization Techniques: (5)
 - (i) Decimal Scaling
 - (ii) Min-Max

Q.3 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

- (A) What are the criteria used to evaluate classification methods? (5)
- (B) Explain Top-Down Induction of Decision Tree. Examine the components of the Top-Down Induction of Decision Trees Procedure. (5)
- (C) Short note on Naive Bayesian Classifiers. (5)
- (D) Write K-Means Algorithm for Clustering. (5)
- (E) Explain the 'Rosenblatt Perceptron' form of Neural Network with diagram. (5)
- (F) Write a short note on Confusion Matrix. (5)

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Q.4 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

- (A) Write a short note on Market Basket Analysis. (5)
- (B) What is use of Web Mining Methods? What are the different purposes of Web Mining? (5)
- (C) Explain "Tactical Planning" Optimization Model for Logistics Planning. (5)
- (D) Explain the CCR Model. (5)
- (E) Write short note on Efficient Frontier. (5)
- (F) What is Relational Marketing? What are the Data Mining in the Field of Relational Marketing? (5)

Q.5 ATTEMPT ANY THREE QUESTIONS: (15 MARKS)

- (A) Define Knowledge Management. What are Data, Information and Knowledge? (5)
- (B) Describe the Knowledge Management System (KMS) Cycle. (5)
- (C) Describe how AI and Intelligent Agents support Knowledge Management. Relate XML to Knowledge Management and Knowledge Portals. (5)
- (D) List and explain characteristics of Artificial Intelligence. (5)
- (E) What is Knowledge Engineering? Explain the process of Knowledge Engineering. (5)
- (F) What are the Areas for Expert System Applications? (5)