Fundamentals of Business Analytics 534E2A
SEM III Elective
QUESTION BANK

Unit I: Introduction to Business Analytics
PART A - 1 Mark Questions
- Define Business Analytics.
- What is the primary role of a Data Scientist?
- Who is a Data Engineer?
- What does a Business Analyst do?
- What is Data Science?
- Name one application of Data Science.
- What is the historical significance of data analysis?
- What is the difference between a Data Scientist and a Data Engineer?
- List one career opportunity in Business Analytics.
- What is the role of a Data Scientist in a business?

PART B - 5 Mark Questions
- Explain the historical overview of data analysis.
- Compare the roles of Data Scientist, Data Engineer, and Business Analyst.
- Discuss the career opportunities in Business Analytics.
- Explain the significance of Data Science in modern businesses.
- Describe the applications of Data Science in the healthcare industry.
- Outline the roles and responsibilities of a Data Scientist.
- Discuss the impact of data analysis on business decision-making.
- Explain how Business Analytics contributes to competitive advantage.
- Describe the educational path to becoming a Data Scientist.
- Explain the importance of data in Business Analytics.

PART C - 10 Mark Questions
- Provide a detailed introduction to Data Science and its significance in modern businesses.
- Discuss the roles and responsibilities of Data Scientists.
- Describe the applications of Data Science in various industries with examples.
- Explain the historical development of data analysis and its evolution.
- Compare and contrast the roles of Data Scientist, Data Engineer, and Business Analyst in detail.
- Discuss the career prospects and necessary skills for a career in Business Analytics.
- Explain the impact of Data Science on business innovation.
- Discuss the ethical considerations in Business Analytics.
- Describe the integration of Business Analytics with business strategy.

- Provide a comprehensive overview of the role of data in modern business environments.

Unit II: Data Visualization
PART A - 1 Mark Questions
- What is data visualization?
- Define Big Data Management.
- Why is data quality important?
- What is data collection?
- Name one source of data for businesses.
- What is the purpose of data management?
- What does data classification involve?
- What is the first step in the Data Science Project Life Cycle?
- Define data acquisition.
- What is data preparation?

PART B - 5 Mark Questions
- Describe the process of data collection and its importance.
- Explain how to deal with missing or incomplete data.
- Outline the Data Science Project Life Cycle.
- Discuss the importance of data quality in business analytics.
- Explain the role of data management in business analytics.
- Describe the various sources of data for business analytics.
- Explain the process of data visualization and its benefits.
- Discuss the importance of data classification in business analytics.
- Explain the significance of data acquisition in the Data Science Project Life Cycle.
- Describe the steps involved in data preparation for analysis.

PART C - 10 Mark Questions
- Discuss the various sources of data and their importance in business analytics.
- Explain the steps involved in data preparation and hypothesis modeling.
- Provide a detailed overview of the evaluation, interpretation, and deployment stages in a Data Science project.
- Describe the process of data management and its impact on business analytics.
- Discuss the challenges and solutions for dealing with missing or incomplete data.
- Explain the importance of data visualization in communicating business insights.
- Describe the role of Big Data Management in modern businesses.

- Discuss the significance of data classification and its impact on data analysis.
- Provide a comprehensive overview of the Data Science Project Life Cycle.
- Explain the role of data quality in achieving accurate business analytics results.

Unit III: Data Mining
Part A -1 Mark Questions
- What is data mining?
- Define OLAP.
- What is cluster analysis?
- Name one task involved in data mining.
- What is association analysis?
- What does OLAP stand for?
- What is the primary purpose of data mining?
- Define multidimensional data analysis.
- What is the role of data mining in business?
- Name one application of data mining.

PART B - 5 Mark Questions
- Explain the origins of data mining.
- Describe the different tasks involved in data mining.
- Discuss the concept of basic association analysis.
- Explain the purpose and benefits of OLAP.
- Describe the process of cluster analysis.
- Discuss the importance of data mining in business decision-making.
- Explain the relationship between data mining and multidimensional data analysis.
- Describe the role of data mining in customer segmentation.
- Discuss the applications of data mining in retail analytics.
- Explain the impact of data mining on predictive analytics.

PART C - 10 Mark Questions
- Compare and contrast OLAP and multidimensional data analysis.
- Provide a detailed explanation of cluster analysis and its applications.
- Discuss the role of data mining in business decision-making with examples.
- Explain the significance of association analysis in data mining.
- Describe the various tasks involved in data mining and their importance.
- Discuss the applications of data mining in different industries.
- Explain the process and benefits of using data mining for customer segmentation.

- Discuss the challenges and solutions in implementing data mining techniques.
- Provide a comprehensive overview of the origins and evolution of data mining.
- Describe the impact of data mining on business intelligence and analytics.

Unit IV: Machine Learning

PART A - 1 Mark Questions
- What is machine learning?
- Define supervised learning.
- What is AI evolution?
- Name one type of machine learning.
- What is unsupervised learning?
- Define reinforcement learning.
- What is the difference between supervised and unsupervised learning?
- What is a machine learning framework?
- Name one application of machine learning.
- What is the purpose of reinforcement learning?

PART B - 5 Mark Questions
- Explain the history and evolution of machine learning.
- Compare statistics, data mining, data analytics, and data science.
- Discuss the frameworks for building machine learning systems.
- Describe the process of supervised learning.
- Explain the concept of unsupervised learning and its applications.
- Discuss the role of reinforcement learning in AI.
- Explain the differences between supervised, unsupervised, and reinforcement learning.
- Describe the impact of machine learning on modern AI applications.
- Discuss the applications of machine learning in healthcare.
- Explain the significance of machine learning in predictive analytics.

PART C - 10 Mark Questions
- Provide a detailed overview of supervised learning, unsupervised learning, and reinforcement learning.
- Discuss the role of machine learning in modern AI applications with examples.
- Explain the differences between data mining and data analytics, and how they relate to machine learning.
- Describe the process and benefits of using machine learning for predictive analytics.
- Discuss the challenges and solutions in implementing machine learning systems.

- Explain the history and evolution of machine learning and its impact on AI.
- Describe the various types of machine learning and their applications.
- Discuss the role of machine learning in business intelligence and analytics.
- Explain the significance of machine learning in enhancing decision-making processes.
- Provide a comprehensive overview of the frameworks for building machine learning systems.

Unit V: Application of Business Analysis

PART A - 1 Mark Questions
- What is retail analytics?
- Define marketing analytics.
- What is supply chain analytics?
- Name one application of business analysis.
- What is financial analytics?
- What does healthcare analytics involve?
- Define business analysis.
- What is the role of marketing analytics?
- Name one benefit of supply chain analytics.
- What is the purpose of financial analytics?

PART B - 5 Mark Questions
- Explain the importance of financial analytics in business.
- Describe the role of healthcare analytics in improving patient care.
- Discuss the application of marketing analytics in targeting customers.
- Explain the impact of retail analytics on customer satisfaction.
- Describe the significance of supply chain analytics in optimizing logistics.
- Discuss the role of business analysis in decision-making processes.
- Explain the applications of marketing analytics in business strategies.
- Describe the benefits of using financial analytics in business operations.
- Discuss the role of healthcare analytics in managing healthcare costs.
- Explain the importance of supply chain analytics in supply chain management.

PART C - 10 Mark Questions
- Provide a detailed analysis of retail analytics and its impact on customer satisfaction.
- Discuss the significance of supply chain analytics in optimizing logistics and operations.
- Explain the various applications of business analysis in different industries with case studies.

- Describe the role of financial analytics in strategic planning and decision-making.
- Discuss the impact of healthcare analytics on patient care and management.
- Explain the importance of marketing analytics in developing business strategies.
- Describe the benefits and challenges of implementing business analysis in organizations.
- Discuss the role of business analysis in enhancing operational efficiency.
- Provide a comprehensive overview of the applications of business analysis in different sectors.
- Explain the significance of business analysis in improving organizational performance