PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BBA DEGREE EXAMINATION DECEMBER 2023
(Fifth Semester)

Branch – BUSINESS ADMINISTRATION (INFORMATION SYSTEMS)

DATA MINING AND BUSINESS INTELLIGENCE

Time: Three Hours   Maximum: 50 Marks

SECTION-A (5 Marks)
Answer ALL questions
ALL questions carry EQUAL marks   (5 x 1 = 5)

1   What is the primary goal of data mining?
    (i)   Data Storage   (ii) Knowledge Discovery
    (iii) Data Cleansing   (iv) Data Visualization

2   Which data pre-processing step involves combining data from different sources into a unified format?
    (i)   Data Reduction   (ii) Data Transformation
    (iii) Data Discretization   (iv) Data Integration

3   What is the primary objective of association rule mining?
    (i)   Predicting future data values
    (ii) Discovering relationships between variables
    (iii) Identifying outliers in data
    (iv) Generating summary statistics

4   What is the main focus of Business Intelligence (BI)?
    (i)   Managing financial transactions
    (ii) Enhancing data security
    (iii) Supporting informed decision-making
    (iv) Predicting future stock prices

5   How can RFID technology be applied in Business Intelligence?
    (i)   To monitor the weather
    (ii) To enhance inventory tracking and management
    (iii) To analyze historical stock market data
    (iv) To track the movement of celestial bodies

SECTION - B (15 Marks)
Answer ALL Questions
ALL Questions Carry EQUAL Marks   (5 x 3 = 15)

6   a   Explain the classification of data mining systems based on functionalities.
                                    OR
    b   State the major issues that organizations may encounter in the implementation of data mining projects?

7   a   Explain the concept of data pre-processing in data mining.
                                    OR
    b   Explain the significance of data reduction techniques in data pre-processing.

8   a   Explain the concept of association rule mining in data mining.
                                    OR
    b   Outline the process of mining single-dimensional Boolean association rules from transactional databases.

Cont...

9 a   Explain the fundamental concepts of Business Intelligence (BI) and its role in modern organizations.

OR

    b   Explain the concept of BI governance and its significance in BI implementations.

10 a   Explain the concept of BI and Integration implementation in the context of Business Intelligence (BI).

OR

    b   Describe the concept of On-Demand BI and its advantages and limitations.

SECTION -C (30 Marks)
Answer ALL questions
ALL questions carry **EQUAL** Marks   (5 x 6 = 30)

11 a   Discuss the architecture of a Data Warehouse in detail.

OR

    b   Analyze the potential future developments of Data Cube technology.

12 a   Discuss the challenges associated with handling missing data during data pre-processing.

OR

    b   Explain the concept of concept hierarchy generation in data pre-processing. How does it help in organizing and structuring data for better analysis?

13 a   Explore the complexities of mining multidimensional association rules in the context of relational databases and data warehouses.

OR

    b   Analyze the impact of association rule mining in the healthcare industry. Provide examples of how healthcare organizations can leverage association rules to improve patient care and optimize operations.

14 a   Analyze the challenges, organizations may face when implementing successful BI projects.

OR

    b   Examine the changing business environments that have driven the adoption of Business Intelligence (BI) solutions.

15 a   Highlight the legal and ethical considerations that organizations must address when implementing BI solutions.

OR

    b   Discuss the potential applications of RFID technology in Business Intelligence. How can RFID enhance data collection and analysis, and what new opportunities does it create for BI applications?

Z-Z-Z   END