PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BBA DEGREE EXAMINATION MAY 2024
(Fifth Semester)

Branch – BUSINESS ADMINSTRATION(INFORMATION SYSTEM)

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 does OLAP stand for in the context of data mining?
   (i)   Online Analytical Processing
   (ii) Operational Log Analysis Protocol
   (iii) Overlapping Logic and Algorithms for Prediction
   (iv) Online Learning and Pattern Analysis

2   What is the primary objective of data cleaning in data pre-processing?
   (i)   Adding noise to the data
   (ii) Removing irrelevant data
   (iii) Replacing missing data with random values
   (iv) Correcting errors and inconsistencies in data

3   How can association rule mining benefit retail businesses?
   (i)   By predicting stock market trends
   (ii) By identifying customer purchasing patterns
   (iii) By generating scientific research papers
   (iv) By optimizing website design

4   What is BI Governance concerned with?
   (i)   Managing employee salaries
   (ii) Designing marketing campaigns
   (iii) Repairing computer hardware
   (iv) Ensuring ethical data practices

5   What does "On-Demand BI" refer to in the context of Business Intelligence?
   (i)   BI services available 24/7
   (ii) BI services that are accessed as needed
   (iii) BI tools that are never in high demand
   (iv) BI solutions customized for specific industries

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

6   a   Discuss the concept of a data warehouse and its significance in data mining.
                              OR
    b   Describe the future development prospects of Data Cube technology.

7   a   Discuss the concept of discretization in data pre-processing.
                              OR
    b   Define and differentiate between data mining primitives and data mining tasks.

8 a Discuss the challenges organizations may face when mining multidimensional association rules from relational databases and data warehouses.

OR

   b Provide examples of how association rule mining can be applied in retail and e-commerce to enhance sales and customer satisfaction.

9 a Compare and contrast transaction processing and analytic processing in the context of BI.

OR

   b Provide examples of common tools and techniques used in Business Intelligence.

10 a Analyze the ethical and privacy issues associated with BI implementations.

OR

   b Describe the potential impact of the Web 2.0 revolution on Business Intelligence.

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

11 a In the context of data mining systems, elaborate on the different functionalities they can offer.

OR

   b Explore the major issues and challenges · faced by organizations when implementing data mining projects.

12 a Elaborate on the various data pre-processing steps in data mining, including data cleaning, integration, and transformation.

OR

   b Analyze the role of data reduction techniques such as PCA (Principal Component Analysis) and feature selection in data pre-processing.

13 a Describe in detail the process of mining single-dimensional Boolean association rules from transactional databases.

OR

   b Elaborate on the steps involved in association rule mining, including data preprocessing, rule generation, and rule evaluation.

14 a Describe the framework for Business Intelligence (BI), including its components such as intelligence creation, use, and BI governance.

OR

   b Explore the role of BI tools and techniques in· facilitating data-driven decision-making. Provide examples of specific BI tools and their applications across different industries.

15 a Explore the future of Business Intelligence in the era of Web 2.0, online social networking, and virtual worlds.

OR

   b Elaborate on the process of connecting Business Intelligence (BI) systems to databases and other enterprise systems.

Z-Z-Z   END