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Question Paper Code: 2436423

B.E. / B.Tech. DEGREE EXAMINATIONS, NOV / DEC 2024

Sixth Semester

Artificial Intelligence and Data Science

U20AI601 – DATA WAREHOUSING AND DATA MINING

(Regulation 2020)

Time: Three Hours

Maximum: 100 Marks

Answer ALL questions

PART – A

(10 x 2 = 20 Marks)

1. How is data warehouse different from a database?
2. Define Data Mart.
3. What is a reporting tool?
4. Write note on ETL.
5. What is KDD process?
6. What is Market basket analysis?
7. State Bayes theorem.
8. What is a support vector?
9. Write note on Temporal database.
10. What is web mining?

PART – B

(5 x 16 = 80 Marks)

11. (a) Discuss in detail about Datawarehousing components. (16)

(OR)

- (b) Explain Star, Snowflake and Fact Constellation schemas in detail with a diagram. (16)

12. (a) (i) Demonstrate in detail on the OLAP Servers. (8)
(ii) Discuss on Data staging (ETL) design and development. (8)

(OR)

- (b) Discuss in detail about the three tier Data warehouse Architecture and explain its features. (16)

13. (a) Explain Data cleaning in detail. (16)

(OR)

- (b) Apply the Apriori algorithm for discovering frequent item sets of the table given below; take minimum support count as 2. (16)

Trans ID	List of item_IDs
T100	I1,I2,I5
T200	I2,I4
T300	I2,I3
T400	I1,I2,I4
T500	I1,I3
T600	I2,I3
T700	I1,I3
T800	I1,I2,I3,I5
T900	I1,I2,I3

14. (a) Discuss Decision tree Induction in detail with suitable example. (16)

(OR)

- (b) Illustrate Support Vector Machine in detail. (16)

15. (a) Evaluate the Mining complex data objects in detail. (16)

(OR)

- (b) Explain Graph, Text and Web mining in detail. (16)