



# Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD)[now MoE]  
Re-accredited with 'A++' Grade by NAAC CGPA 3.65/4, Category I by UGC  
Coimbatore - 641 043, Tamil Nadu, India

## Continuous Internal Assessment Test II –October 2025 SEMESTER-V

Class: III UG

Major: Computer Applications

DSE-2 23BCADE3 Data Mining and Warehousing

Time: 2 hours  
Max.Marks: 60

### Course Outcomes:

- CO1: Understand the basic concepts and the functionality of data mining component.  
CO2: Apprehend the concepts of Data mining system architectures.  
CO3: Analyse the principles of association rules  
CO4: Analyse the analytical idea on Classification and prediction methods.  
CO5: Apprehend on the concepts of data warehousing.

### Part A

6 x 1 = 6

#### Choose the correct answer

- Rule: "Age(20–29)  $\wedge$  Occupation(Student)  $\Rightarrow$  Buys(Laptop)" is \_\_\_\_\_ CO3K1  
a. single dimensional    b. multidimensional    c. quantitative    d. hybrid dimensional
- What is the primary purpose of Training Data in a classification problem? CO4K2  
a. assessing model performance    b. evaluating test data  
c. developing the model    d. visualizing features
- Which data mining functionality focuses on using historical data to predict future outcomes or unknown values? CO4K2  
a. Descriptive Mining    b. Predictive Mining    c. Association Mining    d. Outlier Mining
- The "ETL" process refers to \_\_\_\_\_ in data warehousing. CO5K3  
a. Extract, Transform, Load    b. Evaluate, Test, Link  
c. Extract, Tune, Load    d. End-to-End Tracking
- Identify the term used to define the multidimensional model of the data warehouse. CO5K2  
a. Table    b. Tree    c. Data cube    d. Data structure
- The star schema is composed of \_\_\_\_\_ fact table. CO5K2  
a. one    b. two    c. three    d. four

### Part B

3 x 6 = 18

#### Answer ALL Questions

Answer should not exceed 400 words

- a. Discuss multi-dimensional association rule, its characteristics and the three approaches in mining. CO3K2  
Or CO4K1
- b. Write the basic concepts of classification. CO4K2
- a. Explain how ID3 decision tree algorithm works. CO4K2  
Or CO4K2
- b. How Genetic algorithm works? CO5K2
- a. Describe data warehouse schema. CO5K2  
Or CO5K3
- b. Explain OLAP operations.

### Part C

3 x 12 = 36

#### Answer ALL Questions

Answer should not exceed 800 words

- a. Explain multi-dimensional association rules with an example and generate rules. CO3K2  
Or CO4K3

- 11.a. Discuss classifier accuracy by using ensemble learning methods. CO4K1  
Or  
11.b. Explain classification by back propagation with example. CO4K1  
12.a. Explain data warehouse architecture and its components. CO5K2  
Or  
12.b. Discuss OLAP server architecture. CO5K2

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