



**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)  
Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12B  
Coimbatore - 641 043, Tamil Nadu, India

**Continuous Internal Assessment Test - I February 2025  
SEMESTER VI**

**Class : III UG**

**Time : 2 Hours**

**Major: Computer Applications**

**Max Marks: 60**

**21BCAC29 Data Analytics and Business Intelligence**

**Course Outcomes:**

1. Analyze and explore the applications of data analytics.
2. Apply statistical techniques for data analysis.
3. Discover interesting patterns using data mining techniques.
4. Acquire knowledge on Business Intelligence through Data Mining.
5. Recommend suitable business intelligence tool for industry related problems.

**Part – A**

**6x 1=6**

**Choose the correct answer**

1. Data Analysis is a process of \_\_\_\_\_ CO1K2  
a. Data inspection b. Data cleaning  
c. Data transformation d. All of the above
2. What is the main focus of Data Transformation Testing in ETL? CO1K1  
a. Testing the extraction process  
b. Verifying that data is correctly transformed according to business rules  
c. Checking the loading speed of data  
d. Validating the data warehouse schema
3. Data Analytics uses \_\_\_\_\_ to get insights from data. CO2K2  
a. Statistical figures b. Numerical aspects  
c. Statistical methods d. None of the above
4. The learner is trying to predict housing prices based on the size of each house. What type of regression is this? CO2K3  
a. Multivariate Logistic Regression b. Logistic Regression  
c. Linear Regression d. Multivariate Linear Regression
5. What is the use of data cleaning? CO3K2  
a. To remove the noisy data b. Transformations to correct the wrong data  
c. Correct the inconsistencies in data d. All of the above
6. Where do data warehousing support? CO3K4  
a. OLAP b. OLAP & OLTP c. OLTP d. operational database

**Part – B 3 x 6=18**

**ANSWER ALL THE QUESTIONS**

**Answer should not exceed 400 words**

- 7.a. Discuss on the four types of Analytics using a diagram: CO1K2  
(i) Descriptive (ii) Diagnostic (iii) Predictive (iv) Prescriptive  
(or)
- 7.b. Write on the characteristics of big data analytics. CO1K3
- 8.a. Write on the statistical and mathematical models of data analytics. CO2K2  
(or)
- 8.b. Write a note on how descriptive models can be built. CO2K1
- 9.a. Distinguish between OLTP and Data Warehouses. CO3K2  
(or)

9.b. Write short notes on cross validation.

CO2K2

**Part C**

**3x12=36**

**ANSWER ALL THE QUESTIONS**

**Answer should not exceed 800 words or four pages**

10.a. Discuss in detail the techniques to extract, clean, analyze, store and transform data.

(or)

CO1K2

10.b. Explain in brief about: Real Time, in-database, in-memory, dynamic and cloud Analytics.

CO1K1

11.a. Explain how predictive models can be built.

CO2K1

(or)

11.b. Discuss linear and non-linear regression in predictive models.

CO2K2

12.a. Describe in detail about Data Warehousing Architecture with neat diagram.

CO3K2

(or)

12.b. Write on Gaussians Maximum likelihood function.

CO2K2

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**Staff in-charge: V. Rachel**

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