

B.TECH.
(SEM V) THEORY EXAMINATION 2022-23
BUSINESS INTELLIGENCE AND ANALYTIC

Time: 3 Hours**Total Marks: 100****Note:** Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief.**2 x 10 = 20**

- (a) What are the limitations of mathematical modeling?
- (b) What are the various factors that influence a rational choice while making decision in problem solving?
- (c) Define evolution and deviation analysis.
- (d) What does OLTP & OLAP stands for?
- (e) Why Data Validation is used for ?
- (f) IS PCS used for data reduction?
- (g) What are the 4 types of business analytics?
- (h) What are the types of variables in a dataset?
- (i) What is data repository?
- (j) When should a formal root cause analysis be conducted?

SECTION B

2. Attempt any three of the following:**10x3 = 30**

- (a) Draw and explain business intelligence architecture.
- (b) Explain the different types of Data Mart. Also define fact table and mapplet.
- (c) What are the different tools used for data validation? What are the important steps of data validation?
- (d) Explain Monte Carlo and Regression analysis in detail.
- (e) When should company adopt complex event processing and when should a company adopt business activity monitoring?

SECTION C

3. Attempt any one part of the following:**10x1 = 10**

- (a) How does the business intelligence architecture influence business intelligence purpose?
- (b) What are the different factors responsible for successful BI projects, briefly explain.

4. Attempt any one part of the following:**10x1 = 10**

- (a) How Star and Snowflake schemas are different with each other? Explain with the help of suitable example.
- (b) What are the different steps of ETL process? How ETL process is useful in data warehousing?

5. Attempt any *one* part of the following: **10x1 = 10**

- (a) What is the function to find the day of the week for a particular data value?
- (b) What is Data validation? How it works and why it is important?

6. Attempt any *one* part of the following: **10x1 = 10**

- (a) How do you determine the accuracy of an iris dataset?
- (b) What are different data mining techniques and how business uses them?

7. Attempt any *one* part of the following: **10x1 = 10**

- (a) How does a business glossary related to metadata management?
- (b) With the help of suitable example tell hoe complex event processing and business activity monitoring can actually benefits a company.

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