

BALLARI INSTITUTE OF TECHNOLOGY & MANAGEMENT

(Autonomous Institute under Visvesvaraya Technological University, Belagavi)

USN Course Code

Third Semester MBA Degree Examinations, April 2023

DATA ANALYTICS FOR MANAGERS

Duration: 3 hrs

Max. Marks: 100

- Note:** 1. Answer any FOUR full questions from Question No. 1 to 7.
2. Question No. 8 is compulsory
3. Missing data, if any, may be suitably assumed

<u>Q. No</u>	<u>Question</u>	<u>Marks</u>	<u>(RBTL:CO:PO)</u>
1.	a. What is pattern? List different types of pattern available.	03	(1 : 1 : 1)
	b. Discuss the most important data mining techniques used to generate insights from data.	07	(2 : 1 : 1)
	c. Illustrate with the help of applications of BI which are relevant to Insurance Company.	10	(3 : 1 : 1)
2.	a. What is metadata? List different types of metadata available.	03	(1 : 2 : 2)
	b. Give the comparisons between Star schema and Snowflake schema.	07	(2 : 2 : 2)
	c. Demonstrate the various approaches for the construction of Data Warehouse.	10	(2 : 2 : 2)
3.	a. What are the main components of Data Lake?	03	(1 : 3 : 2)
	b. Give the comparisons between Structured and Unstructured data.	07	(2 : 3 : 2)
	c. Illustrate with a diagram, the main components of BI.	10	(3 : 3 : 2)
4.	a. What is the minimum requirement for a Data Visualization?	03	(1 : 4 : 4)
	b. Explain the different types of Hierarchical data Visualization.	07	(2 : 4 : 4)
	c. Illustrate with a diagram, the following types of Data Visualization tools:	10	(3 : 4 : 4)
	i. Tree Diagram		
	ii. Bar Chart		
5.	a. Write pseudo code for making decisions?	03	(1 : 5 : 4)
	b. What is splitting variable? Describe the three criteria for choosing a splitting variable.	07	(2 : 5 : 4)
	c. Demonstrate the various advanced tools supported for data visualization.	10	(2 : 5 : 4)
6.	a. What are the Advantages of Tableau?	03	(1 : 4 : 4)

- b. Discuss the best practices which are followed to maximize data quality. **07** (2 :4 : 4)
- c. Illustrate with a diagram, the following types of Data Visualization tools: **10** (3 :4 : 4)
- i. Gantt Chart
- ii. Scatter Plot
7. a. List the benefits of Dimensional Modelling. **03** (1 :5 : 4)
- b. Explain the following data visualization tools: **07** (2 :5 : 4)
- i. Power BI
- ii. Qlik View
- c. Demonstrate with a diagram the different components of a Data Lake. **10** (2 :5 : 4)
8. **Case Study**
- a. Illustrate with diagram and example the various trends supported by Data Visualization tools. **10** (3 :5 : 4)
- b. Show the Decision Tree that helps to make decisions for approving the outdoor game using the dataset given in the following Table. **10** (3 :5 : 4)

Outlook	Temp.	Humidity	Windy	Play
Sunny	Hot	High	False	No
Sunny	Hot	High	True	No
Overcast	Hot	High	False	Yes
Rainy	Mild	High	False	Yes
Rainy	Cool	Normal	False	Yes
Rainy	Cool	Normal	True	No
Overcast	Cool	Normal	True	Yes
Sunny	Mild	High	False	No
Sunny	Cool	Normal	False	Yes
Rainy	Mild	Normal	False	Yes
Sunny	Mild	Normal	True	Yes
Overcast	Mild	High	True	Yes
Overcast	Hot	Normal	False	Yes
Rainy	Mild	High	True	No

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