

USN Course Code **Third Semester MBA Degree Examinations, March/April 2024****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. Identify the tools used by BI?	03	(3 :1 : 1)
	b. Identify the various types of patterns? Explain each one.	07	(3 :1 : 1)
	c. Illustrate with a figure, the different components of a data processing chain.	10	(3 :1 : 1)
2.	a. Identify the various applications where OLTP is used.	03	(3 :2 : 1)
	b. Give the important differences between OLTP and DW.	07	(3 :2 : 1)
	c. Illustrate with a figure, the various ways of constructing a data warehouse.	10	(3 :2 : 1)
3.	a. Identify the various factors which determines the data quality.	03	(3 :3 : 1)
	b. Identify the advantages and disadvantages of data lake.	07	(3 :3 : 1)
	c. Compare structured data with unstructured data.	10	(3 :3 : 1)
4.	a. Define the term data visualization.	03	(1 :4 : 1)
	b. Illustrate with example, the two basic types of data visualization.	07	(3 :4 : 1)
	c. Demonstrate with a figure the following types of data visualization tools: i. Tree Diagram ii. Pie Chart	10	(3 :4 : 1)
5.	a. Define the term decision tree.	03	(1 :5 : 1)
	b. Write a pseudo code for making decision trees?	07	(3 :5 : 1)
	c. Identify the 3 key elements on which the decision tree algorithm differs? Explain each one.	10	(3 :5 : 1)
6.	a. Identify the software tools and techniques used by BI.	03	(3 :1 : 1)
	b. Give the comparisons between database and data warehouse.	07	(3 :1 : 1)
	c. Identify the important data mining techniques and explain any two.	10	(3 :1 : 1)
7.	a. Identify the activities dealt by the BI framework.	03	(3 :2 : 1)
	b. Illustrate with a figure, the main components of BI.	07	(3 :2 : 1)

- c. Illustrate with a figure, the various components of a data lake **10** (3 :2 : 1)

8. Case Study

Consider the dataset shown in Table 1. Create a decision tree that helps **20** (3 :5 : 1)
make decisions about approving the play of an outdoor game.

Table.1

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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