Seat No.: _____   Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY
MBA – SEMESTER 2 – EXAMINATION – SUMMER 2019

Subject Code: 3529201   **Date:09/05/2019**
Subject Name: Business Analytics (BA)
Time: 10:30 AM To 01:30 PM   **Total Marks: 70**
Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	Explain the following concepts.	**14**
	(a) Define Business Analytics.	
	(b) What is a Database?	
	(c) Define Data Warehouse.	
	(d) Give examples of Machine Generated Data.	
	(e) What is Social Media? Also give some examples.	
	(f) What is a Dashboard?	
	(g) Name different data models for OLAP.	
Q.2	**(a)** Explain framework for Data Driven Decision Making in Business.	**07**
	(b) You belong to a big corporate house who has invested heavily in IT infrastructure. Explain different categories of IT application users you will find in your company with examples.	**07**
	OR	
	(b) You are a new manager in a conventional company. You want to convince the top management how IT can improvise the business. Prepare a report to highlight the purposes of using IT in Business.	**07**
Q.3	**(a)** Explain the difference between OLTP and OLAP systems.	**07**
	(b) We generate, process and use digital data every day. Explain with proper examples which are the different sources of digital data.	**07**
	OR	
Q.3	**(a)** Explain characteristics of structured data.	**07**
	(b) What are the practical challenges faced while storing unstructured data.	**07**
Q.4	**(a)** What is Big data? Describe characteristics of big data.	**07**
	(b) Explain practical application of data mining in business.	**07**
	OR	
Q.4	**(a)** Explain the types of machine learning.	**07**
	(b) Explain the application of social media analytics in business.	**07**

Today's customers are more empowered and connected than ever before. Using channels like mobile, social media and e-commerce, customers can access just about any kind of information in seconds. This informs what they should buy, from where and at what price. Based on the information available to them, customers make buying decisions and purchases whenever and wherever it's convenient for them.

At the same time, customers expect more. For example, they expect companies to provide consistent information and seamless experiences across channels that reflect their history, preferences and interests. More than ever, the quality of the customer experience drives sales and customer retention. Given these trends, marketers need to continuously adapt how they understand and connect with customers. This requires having data-driven insights that can help you understand each customer's journey across channels.

But consumers today interact with companies through multiple interaction points — mobile, social media, stores, e-commerce sites and more. This dramatically increases the complexity and variety of data types you have to aggregate and analyze. With big data engineering technologies, you can bring together all of your structured and unstructured data into application like Hadoop and analyze all of it as a single data set, regardless of data type. The analytical results can reveal totally new patterns and insights you never knew existed — and aren't even conceivable with traditional analytics. Data engineering is capable of correlating customer purchase histories and profile information, as well as behavior on social media sites. Data-driven customer insights are critical to tackling challenges like improving customer conversion rates, personalizing campaigns to increase revenue, predicting and avoiding customer churn, and lowering customer acquisition costs.

Considering the above provide answers to complex online retail questions such as:

(a)   What's really happening across every step in the customer journey?   **07**

(b)   What are the Key Performance Indicators (KPIs) that you will monitor for large online retail operations?   **07**

OR

Q.5   (a)   How you will successfully use web analytics and social media analytics for better customer engagement.   **07**

(b)   Explain different type of analytics you will use in your whole retail supply chain.   **07**

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