

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER-VI (NEW) EXAMINATION – WINTER 2023**

**Subject Code:3160717**

**Date:07-12-2023**

**Subject Name:Data Visualization**

**Time:02:30 PM TO 05:00 PM**

**Total Marks:70**

**Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

	<b>MARKS</b>
<b>Q.1</b> (a) Define: (1) Data Visualization (2) Data Point (3) Infographics	<b>03</b>
(b) Differentiate following:(1) Canvas and SVG (2) HTML and SVG	<b>04</b>
(c) What is Google API? Write HTML code to display Bar chart using Google APIs.	<b>07</b>
<b>Q.2</b> (a) Differentiate CSV Vs XML files	<b>03</b>
(b) Write down code for reading and displaying JSON file using java script.	<b>04</b>
(c) What is Semantic table? Explain it with suitable example	<b>07</b>
<b>OR</b>	
(c) Write down code for reading asynchronously and displaying XML file using JQuery.	<b>07</b>
<b>Q.3</b> (a) What is D3.js? Explain in short.	<b>03</b>
(b) How do you assure maximum readability using CSS?	<b>04</b>
(c) Write D3 code to demonstrate data binding and data loading.	<b>07</b>
<b>OR</b>	
<b>Q.3</b> (a) Differentiate text file with JSON file	<b>03</b>
(b) What is dynamic highlighting? Explain it using suitable code example.	<b>04</b>
(c) How to use selection in D3? Describe chaining method of D3.js using suitable example.	<b>07</b>
<b>Q.4</b> (a) What is Data joins?	<b>03</b>
(b) Explain interactive buttons with suitable example.	<b>04</b>
(c) Write a code to demonstrate play button also explain it.	<b>07</b>
<b>OR</b>	
<b>Q.4</b> (a) What is sequence w.r.t data visualization?	<b>03</b>
(b) Explain transaction w.r.t data visualization.	<b>04</b>
(c) Write a code to interrupt the play button also explain it.	<b>07</b>
<b>Q.5</b> (a) How do you update charts?	<b>03</b>
(b) How you achieve eloquence? Explain it	<b>04</b>
(c) What is information Dashboard? Explain various design issues of it.	<b>07</b>
<b>OR</b>	
<b>Q.5</b> (a) What is Bullet graph?	<b>03</b>
(b) Explain Sparkline?	<b>04</b>
(c) What are different considerations associated with visual perception of information dashboard.	<b>07</b>

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