

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VI (NEW) EXAMINATION – SUMMER 2023****Subject Code:3160717****Date:10-07-2023****Subject Name:Data Visualization****Time:10:30 AM TO 01:00 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 Point (2) Scale (3) Infographics	<b>03</b>
(b) Discuss the real applications of data visualization in short.	<b>04</b>
(c) Write a code to display both Pie chart and Column chart using Google API in single browser window.	<b>07</b>
<b>Q.2</b> (a) Differentiate CSV Vs JSON files.	<b>03</b>
(b) Write down a code for reading and displaying csv file using Jquery.	<b>04</b>
(c) Explain linear gradient and radial gradient of HTML5 Canvas with example.	<b>07</b>
<b>OR</b>	
(c) Write down a code to display a typical Exam Schedule Time Table with CSS.	<b>07</b>
<b>Q.3</b> (a) What is D3.js? Explain in short.	<b>03</b>
(b) Explain Candlestick Charts in short.	<b>04</b>
(c) Define Data Binding. Also explain different uses of append(), text(), selectAll() (using class,id).	<b>07</b>
<b>OR</b>	
<b>Q.3</b> (a) Differentiate text file with XML file	<b>03</b>
(b) Write a suitable code to demonstrate dynamic highlighting.	<b>04</b>
(c) Write down a code to animate a Rectangle using Canvas API.	<b>07</b>
<b>Q.4</b> (a) What is Data joins? Explain it in short.	<b>03</b>
(b) What is interactive button. Explain it in short.	<b>04</b>
(c) Write a code that uses the join() method to merge the two datasets and create a new dataset that includes both the datasets.	<b>07</b>
<b>OR</b>	
<b>Q.4</b> (a) What is sequence w.r.t data visualization?	<b>03</b>
(b) Write down a code snippet that demonstrate transaction w.r.t data visualization.	<b>04</b>
(c) Write a code snippet that adds a Play button to the page.	<b>07</b>
<b>Q.5</b> (a) What is eloquence? Explain in short.	<b>03</b>
(b) How do you update charts ? Explain in short.	<b>04</b>
(c) What is information Dashboard? Create a sketch/wireframe of any hypothetical Engineering College.	<b>07</b>
<b>OR</b>	
<b>Q.5</b> (a) What is Bullet graph?	<b>03</b>
(b) Explain Critical Design Practices w.r.t data visualization?	<b>04</b>
(c) What are different considerations associated with visual presentation of information dashboard. Explain all in detail.	<b>07</b>

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