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**GANDHI INSTITUTE OF ENGINEERING AND TECHNOLOGY UNIVERSITY, ODISHA, GUNUPUR
(GIET UNIVERSITY)**

Ph.D. (Second Semester-Summer) Examinations, April- 2026

**23SPPECS2011- Data Visualization
(CSE)**



Time: 3 hrs

Maximum: 70 Marks

The figures in the right hand margin indicate marks.

Answer ANY FIVE Questions.

(14 x 5 = 70 Marks) Marks

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| 1.a. Differentiate between Informative Art, Persuasive Art, and Visual Art. | 7 |
| b. Describe the common approaches to big data visualization. | 7 |
| 2.a. Explain the Gestalt principles of visual perception. | 7 |
| b. Differentiate between infographics and data visualization. | 7 |
| 3.a. Describe the necessity of visual encoding and explain its various types. | 7 |
| b. Discuss the purpose of using a dashboard for data visualization. | 7 |
| 4.a. Explain the visualization techniques used in big data. | 7 |
| b. Is there a method to handle null values in Tableau? | 7 |
| 5.a. Define data visualization and illustrate with a stacked view example. | 7 |
| b. Provide an example of visualization based on a reference model. | 7 |
| 6.a. Briefly explain how visualization can be implemented using an HTML document. | 7 |
| b. Explain the command line options available in Data Manager. | 7 |
| 7.a. Discuss the concepts of re-coloring and resizing in data visualization. | 7 |
| b. Provide examples of various visualization tools. | 7 |
| 8.a. Explain the term "visual mapping." | 7 |
| b. Explore the challenges associated with collaborative visualizations and the evaluation of visualizations. | 7 |

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