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



Ph.D. (Second Semester-Summer) Examinations, May - 2025

**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. | Explain the concept of visual perception and explore its importance along with its applications. | 7 |
| b. | Identify and explain the various techniques used in big data visualization. | 7 |
| 2.a. | Explain in detail the nature of data and its various applications. | 7 |
| b. | Define information overload in the context of visual perception and discuss potential solutions. | 7 |
| 3.a. | Describe the necessity of visual encoding and explain its different types | 7 |
| b. | Discuss the purpose of using a dashboard for data visualization. | 7 |
| 4.a. | Explain the various visualization techniques used in big data. | 7 |
| b. | What are the best techniques for data visualization? | 7 |
| 5.a. | Explore the properties and necessity of visual representation. | 7 |
| b. | What are the best techniques for data visualization? | 7 |
| 6.a. | Explore the art of effective visualization for multi-dimensional data. | 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. | Illustrate different data structures used in data visualization. | 7 |
| b. | Discuss the key principles of data visualization. | 7 |

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