

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI  
(END SEMESTER EXAMINATION)**

**CLASS: BCA  
BRANCH: BCA**

**SEMESTER : V  
SESSION : MO/2024**

**SUBJECT: CA335 DATA VISUALIZATION**

**TIME: 3 Hours**

**FULL MARKS: 50**

**INSTRUCTIONS:**

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
  2. Attempt all questions.
  3. The missing data, if any, may be assumed suitably.
  4. Before attempting the question paper, be sure that you have got the correct question paper.
  5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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Q.1(a)	Write the importance of data visualization in data science. Explain visual mapping and elements of data visualization.	[5]	CO CO3	BL BL1
Q.1(b)	Describe the various types of attributes with suitable example. How do you choose the appropriate visualization type for your data to visualize?	[5]	CO2	BL2
Q.2(a)	Explain the do's and don'ts of charts and graphs making. Write the design principles for appropriate visual display of charts and graphs.	[5]	CO1	BL2
Q.2(b)	Write the various types of categorical data. How do you visualize categorical data?	[5]	CO1	BL3
Q.3(a)	Why is Exploratory Data Analysis (EDA) important? Explain the types of Exploratory Data Analysis.	[5]	CO4	BL1
Q.3(b)	Explain the advantages of Geospatial Visualization. What are the techniques used in geospatial data analysis?	[5]	CO2	BL3
Q.4(a)	How does data visualisation facilitate story telling? Write the importance of storytelling in data visualization with suitable example?	[5]	CO3	BL4
Q.4(b)	Explain the various types of dashboards and how can you describe the different parts of a dashboard?	[5]	CO2	BL1
Q.5(a)	How will you visualize data through trees? Explain tree visualization with suitable example.	[5]	CO3	BL3
Q.5(b)	Describe any two use cases of your choice which require data visualization.	[5]	CO5	BL3

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