KUMARAGURU
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ENTER **B.E/B.TECH DEGREE EXAMINATIONS: NOV/DEC 2022**
(Regulation 2018)
Fifth Semester
ARTIFICIAL INTELLIGENCE AND DATA SCIENCE
U18AII5202: Exploratory Data Analysis and Visualization

COURSE OUTCOMES

CO1:	**Understand the main principles of visual perception**
CO2:	**Design core skills for visual analysis**
CO3:	**Identify and apply visualization techniques for various data analysis tasks**
CO4:	**Apply and implement the visualization concepts in various streams**

Time: Three Hours	**Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)

1.	Write the types data analysis	CO1	[K2]
2.	Differentiate regression and correlation	CO1	[K2]
3.	State the data analysis with Excel	CO1	[K1]
4.	Differentiate between vector, List, Matrix, and Data frame	CO2	[K2]
5.	Write the purpose of cor() function in R	CO2	[K3]
6.	Mention the five descriptive statistics	CO2	[K2]
7.	How do I visualize data in R?	CO3	[K4]
8.	Enumerate distribution analysis	CO3	[K2]
9.	Identify the correlation patterns for the real time scenario.	CO4	[K2]
10.	Compare Singlevariate and Multivariate analysis.	CO4	[K3]

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11.	a)	Explain the Central tendencies and distributions concepts and find the varience of first seven Natural Numbers	8	CO1	[K2]
	b)	Describe the different phases of Data Analysis Process.	8	CO1	[K2]
12.	a)	Discuss about the Descriptive statistics with an example.	8	CO1	[K2]

	b)	Explain the type of data and Measurement Scales in detail.	8	CO1	[K_2]
13.	a)	Explain in detail about various types of data visualization techniques with example	8	CO2	[K_2]
	b)	Annotate trellises and crosstabs in detail.	8	CO2	[K_3]
14.	a)	Justify the need for multiple concurrent views	8	CO3	[K_3]
	b)	Illustrate analytics patterns with examples.	8	CO3	[K_4]
15.	a)	Categorize time series analysis and the essential part of it.	8	CO3	[K_2]
	b)	Model the best practices involved in deviation analysis	8	CO3	[K_3]
16.	a)	Predict the correlation analysis with a suitable illustration.	8	CO4	[K_4]
	b)	Interpret multivariate analysis.	8	CO4	[K_3]

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Please indicate knowledge level (K_1toK_6) and Course Outcome level (CO1 to CO5) against each question for each subdivision.