Code: 20IT4703E

IV B.Tech - I Semester – Regular Examinations - DECEMBER 2023

DATA SCIENCE
(INFORMATION TECHNOLOGY)

Duration: 3 hours   Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.
2. All parts of Question must be answered in one place.

BL – Blooms Level   CO – Course Outcome

			BL	CO	Max. Marks
		UNIT-I			
1	a)	Explain in detail about life cycle of Data Science.	L2	CO1	7 M
	b)	What are the benefits and applications of data science?	L2	CO1	7 M
		OR			
2		Explain facets of data in detail with examples.	L2	CO1	14 M
		UNIT-II			
3	a)	How important is it to spend time in comprehending research goals and context?	L2	CO2	7 M
	b)	Explain the concept "Don't be afraid to shop around".	L2	CO2	7 M
		OR			
4		How do you define research goals and create a project charter?	L2	CO2	14 M

		UNIT-III			
5		What are the typical steps involved in data cleansing, integration, and transformation processes?	L2	CO2	14 M
		OR			
6	a)	How the execution of a linear prediction model is typically performed?	L2	CO2	7 M
	b)	What are the key considerations and methods for model and variable selection?	L2	CO2	7 M
		UNIT-IV			
7	a)	"Don't reinvent the wheel" Justify the Statement.	L2	CO3	7 M
	b)	What are the methods to reduce the computing needs?	L2	CO3	7 M
		OR			
8		What factors influence the choosing the right algorithm for analysis?	L2	CO3	14 M
		UNIT-V			
9	a)	What is the significance of figures and subplots in data visualization?	L2	CO4	7 M
	b)	What are the key aspects of configuring Matplotlib for data visualization?	L2	CO4	7 M

		OR			
10	a)	How do tick, labels and legends contribute to effective data visualization?	L2	CO4	7 M
	b)	How do histograms and density plots differ in visualizing data distributions?	L2	CO4	7 M