

CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

22SCN/SCS/SAM/SAD/SDS/VSC/VSA/SCR12

First Semester M.Tech. Degree Examination, Dec.2023/Jan.2024

Fundamentals of Data Sciences

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.**2. M : Marks, L: Bloom's level, C: Course outcomes.*

Module – 1			M	L	C
Q.1	a.	Explain Data Science and big data assumptions.	10	L2	CO1
	b.	What is Datafication and the current landscape.	10	L2	CO1
OR					
Q.2	a.	Illustrate Drew Conway's representation of data science.	10	L2	CO1
	b.	Explain Data Scientist profile.	10	L2	CO1
Module – 2					
Q.3	a.	Explain the significance of Exploratory data analysis.	10	L2	CO2
	b.	Explain Data Science process with neat block diagram.	10	L2	CO2
OR					
Q.4	a.	Explain machine learning Algorithms in Data Science and what are broad generalizations for consideration.	10	L2	CO2
	b.	Explain Linear Regression in Data Science.	10	L2	CO2
Module – 3					
Q.5	a.	Why is Linear Regression a poor choice for filtering?	10	L2	CO2
	b.	Exemplify Naïve Baye's algorithm appraising Three diagrams to build intuition.	10	L3	CO2
OR					
Q.6	a.	Explain Logistic Regression and problem of classifier selection.	10	L2	CO2
	b.	Write down the differences between Logit versus Inverse – Logit and show underlying mathematics in M6D Logistic Regression.	10	L2	CO2
Module – 4					
Q.7	a.	Explain feature generation, Feature extraction and wrappers in Data Science.	10	L2	CO3
	b.	As a Data scientist what should be selection criteria in Feature extraction process.	10	L3	CO3

OR				
Q.8	a.	Explain dependency of Decision tree in Data Science Domain.	10	L2 CO3
	b.	Explain working of Random Forest Algorithm.	10	L2 CO3
Module – 5				
Q.9	a.	Explain commonly used terminologist in Social network.	10	L2 CO4
	b.	Explain the working of MapReduce Technique.	10	L2 CO4
OR				
Q.10	a.	Enlist the basic principles of Data visualization.	10	L1 CO4
	b.	What is data clustering in Data science Domain?	10	L2 CO4
