

Code No: P18CSE04

HALL TICKET NUMBER

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PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE
(AUTONOMOUS)

III B.TECH I SEMESTER END REGULAR EXAMINATIONS, DEC/JAN – 2022/23

DATA SCIENCE

(Common to CSIT, IT Branches)

Time: 3 hours

Max. Marks: 60

Note: Question Paper consists of Two parts (Part-A and Part-B)

PART-A

Answer all the questions in Part-A (5X2=10M).

Q.No.	Questions	Marks	CO	KL
1.	a) Differentiate Cross Product and Dot Product?	[2M]	1	
	b) What is Gaussian distribution?	[2M]	2	
	c) Write the three methods of Data Processing?	[2M]	3	
	d) Define Unsupervised Learning?	[2M]	4	
	e) How is memory managed in Python?	[2M]	5	

PART-B

Answer One Question from each UNIT (5X10=50M)

Q.No.	Questions	Marks	CO	KL
UNIT-I				
2.	a) Discuss about the ways of measure a Vector?	[5M]	1	
	b) Explain the properties of Matrix multiplication with example?	[5M]	1	
OR				
3.	a) Write short notes on different types of Vectors.	[5M]	1	
	b) What is the difference between Singular value decomposition and Eigenvalue decomposition?	[5M]	1	
UNIT-II				
4.	a) Explain the Probability Density Function with example?	[5M]	2	
	b) Write short notes on Confidence Interval for Estimates?	[5M]	2	
OR				
5.	a) Explain the Probability Density Function with example?	[5M]	2	
	b) Discuss about the hypothesis testing?	[5M]	2	
UNIT-III				
6.	a) What are the steps in Data Science Process?	[5M]	3	
	b) What is Data visualization? Explain the types of Data Visualization?	[5M]	3	
OR				
7.	a) What are the advantages and disadvantages of Data Visualization?	[5M]	3	
	b) Define EDA? Write short notes on basic tools of EDA?	[5M]	3	
UNIT-IV				
8.	a) Discuss about different types of a Machine Learning models?	[5M]	4	
	b) What is Reinforcement Learning? Explain with example?	[5M]	4	
OR				
9.	a) Describe in detail about Neural Networks role in Machine Learning?	[5M]	4	



	b)	Define Model Validation? What are the elements involved in Model Validation?	[5M]	4	
UNIT-V					
10.	a)	Write short notes on Python Specific Data Structures?	[5M]	5	
	b)	Briefly explain about Pandas NumPy?	[5M]	5	
OR					
11.	a)	What is Python List? Explain basic operations on Lists with example?	[5M]	5	
	b)	Explain the Binary search algorithm with suitable example?	[5M]	5	
