

Code No: P18CSE04

HALL TICKET NUMBER

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

III B.TECH I SEMESTER END SUPPLEMENTARY EXAMINATIONS, MARCH/APRIL – 2023  
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) What is the best way to visualize linear transformations?	[2M]	1	1
	b) Define Probability density function?	[2M]	2	1
	c) What are the three methods of data processing?	[2M]	3	1
	d) Define Principal Component Analysis?	[2M]	4	1
	e) What is a dictionary in Python?	[2M]	5	1

PART-B

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

Q.No.	Questions	Marks	CO	KL
UNIT-I				
2.	a) Define Vector. Explain the properties Of Vectors?	[5M]	1	2
	b) Write short notes on Hyperplane and Hypersphere?	[5M]	1	1
OR				
3.	a) What is Eigen value? Discuss about rank of a Matrix?	[5M]	1	6
	b) What is Projection? How do you calculate a projection?	[5M]	1	1
UNIT-II				
4.	a) Discuss about the hypothesis testing?	[5M]	2	6
	b) What are the major types of Descriptive Statistics?	[5M]	2	1
OR				
5.	a) Write short notes on Confidence Interval for Estimates?	[5M]	2	1
	b) Define Population and Sample with examples.	[5M]	2	1
UNIT-III				
6.	a) Discuss about the Significance of Data Science Process?	[5M]	3	6
	b) Write short notes on different types of Visualizations?	[5M]	3	1
OR				
7.	a) List the major Data Visualization Tools?	[5M]	3	1
	b) Discuss the basic Principles of Data Visualization?	[5M]	3	6
UNIT-IV				
8.	a) Write the differences between Regression and Classification algorithms?	[5M]	4	2
	b) Discuss about the steps involved in Principal Component Analysis algorithm?	[5M]	4	6
OR				
9.	a) Define Model Validation? What are the elements involved in Model Validation?	[5M]	4	1



	b)	Briefly explain about Bayesian Network models?	[5M]	4	2
UNIT-V					
10.	a)	What is Python Tuples? Explain basic operations on Tuples with example?	[5M]	5	2
	b)	Discuss about the key features of Python?	[5M]	5	6
OR					
11.	a)	How do you perform different operations on Hash tables in Python?	[5M]	5	1
	b)	Briefly explain about Pandas NumPy?	[5M]	5	2

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