



Shri. N. S. Chavhan (K. S. Chavhan)

THAKUR COLLEGE OF ENGINEERING & TECHNOLOGY

Autonomous College Affiliated to University of Mumbai

Approved by All India Council for Technical Education (AICTE) and Government of Maharashtra (GSE)

Completed Autonomous Status by University Grants Commission (UGC) for 10 years w.e.f. A.Y. 2018-20

Average Top 100 College in the Country Ranked 134th in NIRF India Ranking 2019 in Engineering College category

* ISO 9001:2015 Certified * Programme Accredited by National Board of Accreditation (NBA), New Delhi

* Institute Accredited by National Assessment and Accreditation Council (NAAC), Bangalore

Website : www.tce.edu.in

END SEMESTER EXAMINATION, MAY 2023

S. E. /S.T. SEMESTER IV (CBCGS-HME 2020)

Branch:	Artificial Intelligence and Data Science	Q.P. Code:	T2415003-3
Subject:	Introduction to Data Science	Duration:	2 hours
Subject Code:	PCC- AIDS402	Max. Marks:	60

- Instructions:
1. All sections are compulsory
 2. Figures to the right indicate full marks.
 3. Assume suitable data if necessary and state the assumptions clearly.

Section-I Short Answer Questions (Answer any 05 questions out of 06) (Fundamental, Core Types) (10 Marks)					
Q. No.		Marks	CO	RBT Level	PI
1	Explain the importance of Data Science?	2	1	U	1.3.1
2	What are types of Data Analytics.	2	1	U	1.3.1
3	What are the Various applications of Data Science?	2	1	R	1.1.1
4	How Data Science Process the Model?	2	1	A	2.1.3
5	Write short note on Standardizing of data.	2	2	AN	3.1.1
6	What is Regression Technique.	2	3	R	1.1.1
Section-II Descriptive Answer Questions (Answer any 04 out of 06) (Descriptive, Comprehension Types) (20 Marks)					
1	What is EDA? Explain with suitable Example	5	2	A	2.1.3
2	What is Un-supervised machine Learning? Explain Clustering Techniques	5	3	U	1.3.1
3	What is Outliers? Explain various method to handle outliers.	5	4	R	1.1.1
4	Explain Boxplot with neat labelled Diagram?	5	5	A	2.1.3
5	What is Data analytics? Explain the Application of analytics in healthcare.	5	6	R	1.1.1
6	Explain the application of analytics in Business	5	6	R	1.1.1
Section-III Long Answer Question (Answer any 03 out of 05) (Application, Analytical, Evaluation, Design Type) (30 Marks)					
1	What is Data Processing? Explain different stages in Data Processing with flow diagram	10	2	U	1.3.1
2	What is Machine Learning? Explain Supervised Machine Learning with example?	10	3	R	1.1.1
3	What is Dimensionality Reduction Techniques? Explain Features Selection?	10	4	A	2.1.3
4	Describe the Importance of Data Visualization? Explain types of charts used in Data Visualization.	10	5	AN	3.1.1
5	Describe PCA in detail and steps of working principal	10	4	E	2.2.4