

Master of Science(Data Science)**Semester –1**

Course Code	PG01CMD01	Title of the Course	Programming in Python
Total Credits of the Course	04	Hours per Week	04

Course Objectives	<ul style="list-style-type: none"> To learn the fundamentals of the Python programming language. Understand development of procedural as well as object-oriented Python programs. To Learn Python uses with different Data Analysis factors Brief learning about numpy, pandas and matplotlib libraries Built in functions with different libraries uses in Data Analytics
--------------------------	--

Course Outcomes	<ul style="list-style-type: none"> To study how to work with data and analyzing with different operation. For practical knowledge of python widely uses library with data manipulation and data visualization.
------------------------	--

Course Content		
Unit	Description	Weight age (%)
1.	Python Language Basics, Built in Data Structure, Function <ul style="list-style-type: none"> Python Introduction, advantages of python over data science. Python Installation, Interpreter, IDEs (PyCharm) and Text Editors Data structure and sequences (Tuple, List Dict, Set, Built in Sequences Functions) Python basic Programming (conditionals, loops) Functions : Local, Scope, Lamda Function Built in Functions 	25%
2.	Introduction and Basics of Numpy, Scipy <ul style="list-style-type: none"> Numpyndarrays (Creation, Datatypes, Arithmatcs with ndarray) Universal Functions (UFancs), ScipyFuctions Aggregations between ndarrays Sorting Arrays (K-Nearest Neighbors example) Linear Algebra, Pseudorandom Number Generation Basic Indexing and Slicing with ndarray 	25%

C P PATEL AND F H SHAH COMMERCE (AUTONOMOUS) COLLEGE, ANAND

(Managed by SARDAR PATEL EDUCATION TRUST, ANAND)

AFFILIATED TO SARDAR PATEL UNIVERSITY, V V NAGAR

An ISO 9001 2015 Certified / An ISO 14001-2015 Certified / An ISO 21001-2018 Certified

GUJARAT INSTITUTIONAL RATING FRAMEWORK (4 STAR)

AAA Reaccredited CGPA 3.56 – GRADE **A⁺** KCG-Dept of Edu. Got of Gujarat-April 2017

NAAC Reaccredited - CGPA 3.30 - GRADE **'A⁺'** UGC – MHRD, Govt of India – June 2022

Effective from the Academic Year 2024-2025

3.	Data manipulation with Pandas <ul style="list-style-type: none">• Introduction of Pandas Data Structures (Series, Data Frames, Index)• Data Indexing and Selection• Arithmetic and Data Alignment• Concate, append, merge and join of combining Datasets• Aggregation and Grouping• Pivot tables, Pandas String Operations	25%
4.	Visualization with Matplotlib <ul style="list-style-type: none">• General Introduction about Matplotlib basics• Line Plots, Scatter Plots, Visualizing Errors• Histogram, Binnings and Density• Customizing Plot, Color bars, Ticks• Multiple Subplots• Three Dimensional Plotting in Matplotlib	25%

Teaching-Learning Methodology	Material for this course will be presented using multiple teaching approach: lecture and discussion, exploration and inquiry, cooperative groupwork, demonstrations, and presentations
--------------------------------------	--

Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written	30%
2.	Internal Continuous Assessment in the form of Quizzes, Seminars, Assignments, Attendance	
3.	External Examination	70%

C P PATEL AND F H SHAH COMMERCE (AUTONOMOUS) COLLEGE, ANAND

(Managed by SARDAR PATEL EDUCATION TRUST, ANAND)

AFFILIATED TO SARDAR PATEL UNIVERSITY, V V NAGAR

An ISO 9001 2015 Certified / An ISO 14001-2015 Certified / An ISO 21001-2018 Certified
GUJARAT INSTITUTIONAL RATING FRAMEWORK (4 STAR)

AAA Reaccredited CGPA 3.56 – GRADE **A⁺** KCG-Dept of Edu. Got of Gujarat-April 2017

NAAC Reaccredited - CGPA 3.30 - GRADE **'A⁺'** UGC – MHRD, Govt of India – June 2022

Effective from the Academic Year 2024-2025

Suggested References:	
S r .No.	References
1	Python Data Science Handbook Essential Tools for Working with Data (O'REILLY) Jake VanderPlas
2	Python for Data Analysis DATA WRANGLING WITH PANDAS, NUMPY, AND IPYTHON (2 nd Edition)
3	Learning Python by Mark Lutz (4 th Edition)
4	Online Sources: https://www.w3schools.com/datascience/ds_python.asp https://www.geeksforgeeks.org/data-science-with-python-tutorial/

**Master of Science (Data Science)
Semester –1**

Course Code	PG01CMD502	Title of the Course	Data Structures and Algorithms
Total Credits of the Course	04	Hours per Week	04

Course Objectives	<ul style="list-style-type: none"> To learn the basic and advanced data structure and algorithms for different problem solving in Data Science. To Learn Linked list for data maintain and uses with different operations Detail learning about all algorithms of difficult scenario Trees, Graphs algorithms study uses in Data Analysis.
--------------------------	--

Course Outcomes	<ul style="list-style-type: none"> To study with data structures and analyzing with sorting and searching data. For Logical, knowledge of data structure widely uses algorithms with data manipulation.
------------------------	---

Course Content		
Unit	Description	Weight age (%)
1.	Overview Data Structures and Algorithms <ul style="list-style-type: none"> Introduction of Data Structure and Algorithms Definitions of Database, Record, Field, Key Databases VS. Data Structure Analysis of Algorithms Basic Data Structures, Types and Recursion 	25%
2.	Stacks, Queues and Deques <ul style="list-style-type: none"> Basics of Stacks, Simple Arrays based Stack implementation Algorithms Reversing Data using a Stack. Basics of Queues, Simple Arrays based Queue implementation Algorithms Double-ended Queues, Simple Arrays based Dequeue implementation Algorithms 	25%

C P PATEL AND F H SHAH COMMERCE (AUTONOMOUS) COLLEGE, ANAND

(Managed by SARDAR PATEL EDUCATION TRUST, ANAND)

AFFILIATED TO SARDAR PATEL UNIVERSITY, V V NAGAR

An ISO 9001 2015 Certified / An ISO 14001-2015 Certified / An ISO 21001-2018 Certified
GUJARAT INSTITUTIONAL RATING FRAMEWORK (4 STAR)

AAA Reaccredited CGPA 3.56 – GRADE **A⁺** KCG-Dept of Edu. Got of Gujarat-April 2017

NAAC Reaccredited - CGPA 3.30 - GRADE **'A⁺'** UGC – MHRD, Govt of India – June 2022

Effective from the Academic Year 2024-2025

3.	Linked Lists Data Structure <ul style="list-style-type: none">• Singly Linked Lists Implementing Algorithms• Circular Linked Lists Implementing Algorithms• Doubly Linked Lists Implementing Algorithms• Sorting and Searching Algorithms (Merge sort, Quick sort)• Link base VS Array Based Sequences	25%
4.	Trees, Text Processing and Graphs <ul style="list-style-type: none">• Trees Definition and properties, Binary Trees algorithm• Tree Traversal Algorithms (Breath-First, In order)• Brute Force Text Processing Algorithm• Data Structure for Graphs• DFS and BFS Graphs Algorithm	25%

Teaching-Learning Methodology	Material for this course will be presented using multiple teaching approach: lecture and discussion, exploration and inquiry, cooperative group work, demonstrations, and presentations
--------------------------------------	---

EvaluationPattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written	30%
2.	Internal Continuous Assessment in the form of Quizzes, Seminars, Assignments, Attendance	
3.	External Examination	70%

C P PATEL AND F H SHAH COMMERCE (AUTONOMOUS) COLLEGE, ANAND

(Managed by SARDAR PATEL EDUCATION TRUST, ANAND)

AFFILIATED TO SARDAR PATEL UNIVERSITY, V V NAGAR

An ISO 9001 2015 Certified / An ISO 14001-2015 Certified / An ISO 21001-2018 Certified

GUJARAT INSTITUTIONAL RATING FRAMEWORK (4 STAR)

AAA Reaccredited CGPA 3.56 – GRADE **A⁺** KCG-Dept of Edu. Got of Gujarat-April 2017

NAAC Reaccredited - CGPA 3.30 - GRADE **'A⁺'** UGC – MHRD, Govt of India – June 2022

Effective from the Academic Year 2024-2025

Suggested References:	
S r .No.	References
1	Data Strcutres& Algorithms with python Michael T. Goodrich, Roberto Tamassia, Michael H. Goldwasser
2	Problem Solving with Algorithms andDataStructuresRelease 3.0 Brad Miller, David Ranum
3	Data Structures & Algorithms in Python John Canning Alan Broder Robert Lafore
4	Online Sources: https://jovian.com/learn/data-structures-and-algorithms-in-python https://www.geeksforgeeks.org/python-data-structures-and-algorithms/

C P PATEL AND F H SHAH COMMERCE (AUTONOMOUS) COLLEGE, ANAND

(Managed by SARDAR PATEL EDUCATION TRUST, ANAND)

AFFILIATED TO SARDAR PATEL UNIVERSITY, V V NAGAR

An ISO 9001 2015 Certified / An ISO 14001-2015 Certified / An ISO 21001-2018 Certified

GUJARAT INSTITUTIONAL RATING FRAMEWORK (4 STAR)

AAA Reaccredited CGPA 3.56 – GRADE **A⁺** KCG-Dept of Edu. Got of Gujarat-April 2017

NAAC Reaccredited - CGPA 3.30 - GRADE **'A⁺'** UGC – MHRD, Govt of India – June 2022

Effective from the Academic Year 2024-2025

Master of Science (Data Science)

Semester –1

Course Code	PG01CMD503	Title of the Course	Data Analysis using Office Tools
Total Credits of the Course	04	Hours per Week	04

Course Objectives	<ul style="list-style-type: none">To learn heavily on Office Tools to prepare charts, tables, and professional reports that involve complex data.To Learn in-depth knowledge of pivot tables, audit and analyze worksheet data.Learn the most advanced formulas, functions, charts and types of financial analysis to be an Office Tool power user.Built in functions with different features about data analysis.
-------------------	---

Course Outcomes	<ul style="list-style-type: none">To study how to work with data and analyzing with different Office Features.For practical knowledge of Office Tools widely uses its features with data manipulation and data visualization.
-----------------	--

Course Content		
Unit	Description	Weight age (%)
1.	Introduction of Spreadsheets Table <ul style="list-style-type: none">Basic Office Spread Sheets, import or export data.Deleting unnecessary columns and rows (Resize, Duplication etc.)Cleaning data for analysis (Formatting Data with Text Functions)Using validation to keep data cleanCleaning Data Containing Date ValuesConditional Formatting	25%
2.	Sorting, Filtering, Ranges and Quick Function <ul style="list-style-type: none">Sort by Text, Number, Date or Time etc.Filtering by Text, Date, and Color etc.Subtotals with specific rangesQuick analysis with Totals: Sum, Avg, Count, %Total, Sum of Columns	25%

C P PATEL AND F H SHAH COMMERCE (AUTONOMOUS) COLLEGE, ANAND

(Managed by SARDAR PATEL EDUCATION TRUST, ANAND)

AFFILIATED TO SARDAR PATEL UNIVERSITY, V V NAGAR

An ISO 9001 2015 Certified / An ISO 14001-2015 Certified / An ISO 21001-2018 Certified

GUJARAT INSTITUTIONAL RATING FRAMEWORK (4 STAR)

AAA Reaccredited CGPA 3.56 – GRADE **A⁺** KCG-Dept of Edu. Got of Gujarat-April 2017

NAAC Reaccredited - CGPA 3.30 - GRADE **'A⁺'** UGC – MHRD, Govt of India – June 2022

Effective from the Academic Year 2024-2025

3.	Advanced Excel Function, Pivot Tables & Pivot Charts <ul style="list-style-type: none">• VLOOKUP Function Introduction• VLOOKUP Function with range_lookup• HLOOKUP Function Introduction• HLOOKUP Function with range_lookup• Index and Match Function• Working with pivot tables and Charts	25%
4.	Advanced Data Analysis <ul style="list-style-type: none">• Data Visualization (Bar Chart, Gantt Chart etc.)• Financial Analysis (Calculating Interest Rate, Term of Loan, Decisions on Investments)• Data Consolidation• What-If Analysis (What-If Analysis with Scenario Manager)• Statistics Functions uses (Standard Deviation, Normal Distribution)	25%

Teaching-Learning Methodology	Material for this course will be presented using multiple teaching approach: lecture and discussion, exploration and inquiry, cooperative group work, demonstrations, and presentations
--------------------------------------	---

Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written	30%
2.	Internal Continuous Assessment in the form of Quizzes, Seminars, Assignments, Attendance	
3.	External Examination	70%

C P PATEL AND F H SHAH COMMERCE (AUTONOMOUS) COLLEGE, ANAND

(Managed by SARDAR PATEL EDUCATION TRUST, ANAND)

AFFILIATED TO SARDAR PATEL UNIVERSITY, V V NAGAR

An ISO 9001 2015 Certified / An ISO 14001-2015 Certified / An ISO 21001-2018 Certified

GUJARAT INSTITUTIONAL RATING FRAMEWORK (4 STAR)

AAA Reaccredited CGPA 3.56 – GRADE **A⁺** KCG-Dept of Edu. Got of Gujarat-April 2017

NAAC Reaccredited - CGPA 3.30 - GRADE **'A⁺'** UGC – MHRD, Govt of India – June 2022

Effective from the Academic Year 2024-2025

Suggested References:	
S r .No.	References
1	Excel Data Analysis For Dummies, 2nd Edition Published by: John Wiley & Sons, Inc
2	Data Analysis with Excel 2016 by Tutorials Point (I) Pvt. Ltd
3	Advanced Data Analysis: F anced Data Analysis: From Excel Pivcel PivotTables t ables to Microsoft Christopher C. Brown Denise Pan Gabrielle Wiersma
4	Online Sources: https://www.tutorialspoint.com/advanced_excel/advanced_excel_instant_data_analysis.htm https://support.microsoft.com/en-us/office/analyze-data-in-excel-3223aab8-f543-4fda-85ed-76bb0295ffc4

Master of Science (Data Science)**Semester –1**

Course Code	PG01CMD504	Title of the Course	Principles of Data Science
Total Credits of the Course	04	Hours per Week	04

Course Objectives	<ul style="list-style-type: none"> • Explore the fundamental concepts of data science. • Understand data analysis techniques for applications handling large data. • Visualize and present the inference using various tools • Built in functions with different features about data analysis. • Develop and appreciate various techniques for data modeling and mining. • Preparation, analysis, modeling and visualization of data, covering both conceptual and practical issues.
--------------------------	--

Course Outcomes	<ul style="list-style-type: none"> • To provide strong foundation for data science and application area related to information technology and understand the underlying core concepts and emerging technologies in data science. • Recognize various disciplines to a successful data science effort.
------------------------	---

Course Content		
Unit	Description	Weight age (%)
1.	Introduction to core concepts and technologies <ul style="list-style-type: none"> • Introduction, Terminology, data science process, data science toolkit, Types of data, Example Application • Data science needs and features • Importance of data science in modern business • Current trends in data science • Analytical techniques • Jobs in data science 	25%
2.	Basic factors for Data <ul style="list-style-type: none"> • What is data? Types of digital data • Working with structured and unstructured data • Natural language and Machine generated data • Graph based or Network data • Audio, Image and Video data, Data streaming 	25%

C P PATEL AND F H SHAH COMMERCE (AUTONOMOUS) COLLEGE, ANAND

(Managed by SARDAR PATEL EDUCATION TRUST, ANAND)

AFFILIATED TO SARDAR PATEL UNIVERSITY, V V NAGAR

An ISO 9001 2015 Certified / An ISO 14001-2015 Certified / An ISO 21001-2018 Certified

GUJARAT INSTITUTIONAL RATING FRAMEWORK (4 STAR)

AAA Reaccredited CGPA 3.56 – GRADE **A⁺** KCG-Dept of Edu. Got of Gujarat-April 2017

NAAC Reaccredited - CGPA 3.30 - GRADE **'A⁺'** UGC – MHRD, Govt of India – June 2022

Effective from the Academic Year 2024-2025

3.	Datascience process <ul style="list-style-type: none">• Setting the research goal• Retrieving or Collecting Data• Data preparation, Validating• Data exploration and modeling• Resulting analysis, Presentation and Automation• Benefits of data science process	25%
4.	Advanced Data Science management <ul style="list-style-type: none">• Data Aggregation, Integration• Data warehouse, Data mining• Transactional Data – Biological Data – Spatial Data – Social Network Data – Data Evolution• Advance data management and analysis• Data Visualizations	25%

Teaching-Learning Methodology	Material for this course will be presented using multiple teaching approach: lecture and discussion, exploration and inquiry, cooperative group work, demonstrations, and presentations
--------------------------------------	---

EvaluationPattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written	30%
2.	Internal Continuous Assessment in the form of Quizzes, Seminars, Assignments, Attendance	
3.	External Examination	70%

C P PATEL AND F H SHAH COMMERCE (AUTONOMOUS) COLLEGE, ANAND

(Managed by SARDAR PATEL EDUCATION TRUST, ANAND)

AFFILIATED TO SARDAR PATEL UNIVERSITY, V V NAGAR

An ISO 9001 2015 Certified / An ISO 14001-2015 Certified / An ISO 21001-2018 Certified

GUJARAT INSTITUTIONAL RATING FRAMEWORK (4 STAR)

AAA Reaccredited CGPA 3.56 – GRADE **A⁺** KCG-Dept of Edu. Got of Gujarat-April 2017

NAAC Reaccredited - CGPA 3.30 - GRADE **'A⁺'** UGC – MHRD, Govt of India – June 2022

Effective from the Academic Year 2024-2025

Suggested References:	
S r .No.	References
1	Introducing Data Science, Davy Cielen, Arno D. B. Meysman, Mohamed Ali, Manning Publications Co., 1st edition, 2016
2	Ethics and Data Science, D J Patil, Hilary Mason, Mike Loukides, O' Reilly, 1st edition, 2018
3	Data Science from Scratch: First Principles with Python, Joel Grus, O'Reilly, 1st edition, 2015
4	Online Sources: https://www.javatpoint.com/data-science https://www.heavy.ai/learn/data-science

Master of Science (Data Science)**Semester –1**

Course Code	PG01CMDS05	Title of the Course	Applied Mathematics
Total Credits of the Course	04	Hours per Week	04

Course Objectives	<ul style="list-style-type: none"> To some basic mathematical ideas and tools which are at the core of any engineering course. A brief course in Linear Algebra familiarizes students with some basic techniques in matrix theory, which are essential for analyzing linear systems. The course is a brief overview of the basic tools from Linear Algebra and Multivariable Calculus that will be needed in subsequent course of the program.
--------------------------	---

Course Outcomes	<ul style="list-style-type: none"> Fundamental properties of matrices, their norms, and their applications. Basic properties of optimization problems involving matrices and functions of multiple variables.
------------------------	---

Course Content		
Unit	Description	Weight age (%)
1.	Matrices <ul style="list-style-type: none"> Matrices and Basic Operations, Special structures Matrices and Basic Operations. Interpretation of matrices as linear mappings and some examples. Rank of a matrix, Echelon form, consistency of linear System of equations, Linear dependence of vectors, Eigen values, Eigenvectors. Square Matrices, Determinants, Properties of determinants, singular and non-singular matrices, examples, finding an inverse matrix. 	25%
2.	Infinite Series <ul style="list-style-type: none"> Definition of Convergence of sequence and series. Series of positive terms – Necessary condition for convergence, Comparison tests, limit form comparison test, D'Alembert's Ratio test, Raabe's test, Cauchy's root test, alternating series, Leibnitz's rule, absolutely and conditionally convergence. 	25%

C P PATEL AND F H SHAH COMMERCE (AUTONOMOUS) COLLEGE, ANAND

(Managed by SARDAR PATEL EDUCATION TRUST, ANAND)

AFFILIATED TO SARDAR PATEL UNIVERSITY, V V NAGAR

An ISO 9001 2015 Certified / An ISO 14001-2015 Certified / An ISO 21001-2018 Certified

GUJARAT INSTITUTIONAL RATING FRAMEWORK (4 STAR)

AAA Reaccredited CGPA 3.56 – GRADE **A⁺** KCG-Dept of Edu. Got of Gujarat-April 2017

NAAC Reaccredited - CGPA 3.30 - GRADE **'A⁺'** UGC – MHRD, Govt of India – June 2022

Effective from the Academic Year 2024-2025

3.	Partial Differentiation and Its Applications <ul style="list-style-type: none">• Functions of two or more variables, Partial derivatives, Higher order partial derivatives, Total derivative• Differentiation of implicit functions, Jacobians, Taylor's expansion of functions of two variables, Maxima and minima of functions of two variables.• Linear Systems Definition, applications, solving linear systems, linear inequalities, linear programming.	25%
4.	Vector Differential Calculus, Analysis elements <ul style="list-style-type: none">• Scalar and vector point functions, vector operator Del, Gradient, Directional derivative, Divergence, Curl, Del applied twice to point functions, Del applied to product of point functions (vector identities).• Applications: Irrotational fields and Solenoidal fields.• Analysis elements Distance, Limits, Continuity, Differentiability, the gradient and the Gaussian.	25%

Teaching-Learning Methodology	Material for this course will be presented using multiple teaching approach: lecture and discussion, exploration and inquiry, cooperative group work, demonstrations, and presentations
--------------------------------------	---

Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written	30%
2.	Internal Continuous Assessment in the form of Quizzes, Seminars, Assignments, Attendance	
3.	External Examination	70%

C P PATEL AND F H SHAH COMMERCE (AUTONOMOUS) COLLEGE, ANAND

(Managed by SARDAR PATEL EDUCATION TRUST, ANAND)

AFFILIATED TO SARDAR PATEL UNIVERSITY, V V NAGAR

An ISO 9001 2015 Certified / An ISO 14001-2015 Certified / An ISO 21001-2018 Certified

GUJARAT INSTITUTIONAL RATING FRAMEWORK (4 STAR)

AAA Reaccredited CGPA 3.56 – GRADE **A⁺** KCG-Dept of Edu. Got of Gujarat-April 2017

NAAC Reaccredited - CGPA 3.30 - GRADE **'A⁺'** UGC – MHRD, Govt of India – June 2022

Effective from the Academic Year 2024-2025

Suggested References:	
S r .No.	References
1	Sastry, S.S, Engineering Mathema[cs", Vol. I & II, PHI Learning Pvt. Ltd, 4th Edition, New Delhi, 2014.
2	Gilbert Strang, Linear Algebra and its Applications. Thomson /Brooks Cole (Available in a Greek Translation).
3	Wylie, R.C. and Barre), L.C., —Advanced Engineering Mathema[cs —Tata McGraw Hill Education Pvt. Ltd, 6th Edition, New Delhi, 2012.
4	B.S. Grewal, Higher Engineering Mathematics, Khanna Publishers, 44th Edition, 2017.
5	Erwin kreyszig, Advanced Engineering Mathematics, 10th Edition, John Wiley & Sons, 2010

**Master of Science (Data Science)
Semester –1**

Course Code	PG01CMDS06	Title of the Course	Practical's of Python and Advance Office Tools
Total Credits of the Course	05	Hours per Week	10

Course Objectives	<ul style="list-style-type: none"> To provide practical experience of Python programming To provide practical experience off working with Office Tools. To familiarize students with Data Science Libraries in Python. Financial applications in Office Tools. Data science application in python.
--------------------------	---

Course Outcomes	<ul style="list-style-type: none"> Gain knowledge of developing Python programs and applications. Create and manipulate Office Tools functionality for data analysis.
------------------------	---

Course Content		
	Description	Weight age (%)
	Part-1 : Practical based on PG01CMDS01	50%
	Part-2 : Practical based on PG01CMDS03	50%

Teaching-Learning Methodology	Blended learning approach incorporating traditional classroom teaching as well as online / ICT-based teaching practices
--------------------------------------	---

C P PATEL AND F H SHAH COMMERCE (AUTONOMOUS) COLLEGE, ANAND

(Managed by SARDAR PATEL EDUCATION TRUST, ANAND)

AFFILIATED TO SARDAR PATEL UNIVERSITY, V V NAGAR

An ISO 9001 2015 Certified / An ISO 14001-2015 Certified / An ISO 21001-2018 Certified

GUJARAT INSTITUTIONAL RATING FRAMEWORK (4 STAR)

AAA Reaccredited CGPA 3.56 – GRADE **A⁺** KCG-Dept of Edu. Got of Gujarat-April 2017

NAAC Reaccredited - CGPA 3.30 - GRADE **'A⁺'** UGC – MHRD, Govt of India – June 2022

Effective from the Academic Year 2024-2025

EvaluationPattern	
Details of the Evaluation	Weightage
Internal Written / Practical Examination (As per CBCS R.6.8.3)	15%
Internal Continuous Assessment in the form of Practical, Viva-voce, Quizzes, Seminars, Assignments, Attendance (As per CBCS R.6.8.3)	15%
External Examination	70%