

**B.Tech, CSE (Database Administration & Big Data)
2022-26**

q	Semester-I	L	P	U	Semester-II	L	P	U
I	Chemistry	3	0	3	Thermodynamics	3	0	3
	English Language Skills	3	0	3	Probability & Statistics	3	0	3
	Linear Algebra	3	0	3	Higher Calculus	3	0	3
	Physics I	3	0	3	Physics II	3	0	3
	Engineering Graphics	2	4	4	Scientific Measurements	0	4	2
	Computer Programming I	3	2	4	Workshop Practice	2	4	4
	Environmental Science	2	0	2	Computer Programming II	3	2	4
Total No. of Credits				22	Total No. of Credits			22
Year	Semester-III	L	P	U	Semester-IV	L	P	U
II	Electrical Sciences I	3	0	3	Electrical Sciences II	3	0	3
	Digital Electronics	2	2	3	Engineering Measurements	1	8	4
	Engineering Mechanics	3	0	3	Professional Communication	3	0	3
	Principles of Economics	3	0	3	Principles of Management	3	0	3
	Data Structures	3	2	4	Optimization Techniques	3	0	3
	Differential Equations & Fourier Series	3	0	3	Structure & Properties of Materials	3	0	3
	Discrete Structures for Computer Science	3	0	3	Design Analysis & Algorithms	3	2	4
Total No. of Credits				22	Total No. of Credits			23
Year	Semester-I	L	P	U	Semester-II	L	P	U
III	Numerical Methods	3	0	3	Data Warehousing and Mining	3	0	3
	Introduction to SQL	3	2	4	Special Project(1)	0	0	3
	Artificial Intelligence	3	0	3	Computer Organization and Architecture	3	0	3

	Operating Systems	3	2	4	Introduction to PL SQL	3	2	4
	Introduction to Data Science	3	0	3	Computer Networks	3	2	4
	Theory of Computation	3	0	3	Neural Networks & Fuzzy Logic	3	0	3
	Elective (1)	3	0	3	Elective (1)	3	0	3
	Total No. of Credits 23				Total No. of Credits 23			
Year	Semester-I	L	P	U	Semester-II	L	P	U
IV	Internship Program II				Internship Program II			
	Thesis & Seminar				Thesis & Seminar			
	Machine Learning	3	0	3	Machine Learning	3	0	3
	Expert Systems	3	0	3	Expert Systems	3	0	3
	Electives (4)				Electives (4)			
	20/18							20/18

List of electives for B.Tech. Database Administration and Big Data

1) Data Science Specialization

Course Code	Course Title	L	P	U
DS401	Predictive Analytics	3	0	3
DS402	System for Data Analytics	3	0	3
DS403	Data Visualization	3	0	3
DS404	Big Data Systems	3	0	3
DS405	Real Time Analytics	3	0	3

2) Artificial Intelligence Specialization

Course Code	Course Title	L	P	U
DS406	Natural Language Processing	3	0	3
DS407	Soft Computing	3	0	3
DS408	Human Computer Interaction	3	0	3
DS409	Computer Vision	3	0	3

3) Cloud Computing Specialization

Course Code	Course Title	L	P	U
DS410	Distributed Cloud Computing	3	0	3
DS411	Internet of Things	3	0	3
DS412	Security & Privacy in Cloud Computing	3	0	3
DS413	Cloud Administration	3	0	3

4) Blockchain Specialization

Course Code	Course Title	L	P	U
DS414	Fundamentals of Blockchain Technology.	3	0	3
DS415	Ethereum & Solidity Programming Essentials	3	0	3
DS416	Blockchain with Artificial Intelligence	3	0	3
DS417	Blockchain with IoT	3	0	3