

**As Per NEP 2020**

AC –  
Item No. –

**Tolani College of  
Commerce  
(Autonomous)**



Knowledge is Supreme

**Title of the Course: Database Management Systems**

**Programme : Bachelor of Science (Information Technology )Semester III**

**Syllabus for 2 credits Course**

**From the academic year-2024-2025**

## Name of the Course: Database Management Systems

Sr. No.	Heading	Particulars
1	<b>Description the course :</b>	A Database Management System (DBMS) is software designed to efficiently and securely manage and organize data in a structured format. It serves as an interface between the users and the database, allowing users to interact with the data without needing to understand the complexities of its storage and retrieval. Here are key components and features of a typical DBMS:
2	<b>Vertical :</b>	Vocational Skill Course
3	<b>Type :</b>	Theory and Practical
4	<b>Credit:</b>	2 credits ( 1 credit = Theory and 1 credit Practical )
5	<b>Hours Allotted :</b>	30 Hours
6	<b>Marks Allotted:</b>	Total 50 Marks Continuous Evaluation 20 Marks Semester End Examination 30 Marks
7	<b>Course Objectives:</b>	<ol style="list-style-type: none"> <li>1. To learn RDMS, data models, hierarchy, Relational model concepts</li> <li>2. Introduction and programming skill development in SQL/PLSQL</li> </ol>
8	<b>Course Outcomes:</b>	<ol style="list-style-type: none"> <li>1. Develop programmatical logic and concept of SQL/PLSQL .</li> <li>2. Develop and deploy project on Oracle</li> </ol>

9	<p><b>Modules:-</b></p> <hr/> <p><b>Module 1: Database Concept and Data Model(15 hours)</b></p> <hr/> <ul style="list-style-type: none"> <li>• Introduction to Databases and Transactions Database system, purpose of database system, view of data, Relational databases, database architecture</li> <li>• Database Design, ER Diagram and Unified Modeling Language Database design and ER Model: Constraints, ER Diagrams, Codd's rules, Relational Schemas</li> <li>• Relational database model, Integrity, Join , Constraints, Views and SQ, Views, Introduction to views</li> </ul> <hr/> <p><b>Module 2: PL/SQL(15 hours)</b></p> <hr/> <ul style="list-style-type: none"> <li>• Beginning with PL / SQL,Identifiers and Keywords,</li> <li>• Cursors and Transaction,Collections and composite data types, Procedures and Functions,</li> <li>• Exceptions Handling,Packages,With Clause and Hierarchical Retrieval,Triggers.</li> </ul>
10	<p><b>Reference Books:</b></p> <ol style="list-style-type: none"> <li>1) <b>Author:</b>Thomas Powell Robert Elsenpeter, <b>Title:</b>Web Design The CompleteReference , <b>Publisher:</b>Tata McGrawHill.</li> <li>2) <b>Author:</b>Thomas Powell and Fritz <b>Title:</b>The Complete Reference Schneider ,<b>Publisher:</b>Tata McGrawHill,<b>edition:</b>2<sup>nd</sup></li> </ol>

11	<b>Internal Continuous Assessment: 20%</b>	<b>Semester End Examination : 30%</b>
12	<b>Continuous Evaluation through:</b>	practical assessment

13 **Format of Question Paper:**

**Scheme of Evaluation Pattern**  
**Table 1A: Scheme of Continuous Evaluation (CE/Practical)**  
**Scheme of Evaluation Pattern**

Sub-components	Maximum Marks	Conditions for passing
5) Practical exam	15	A learner must be present for each of the sub-components.
6) Journal and Viva	5	
Total	20	

**Table 1B: Scheme of Semester End Examination (SEE) Evaluation**  
**Question Paper Pattern for Semester End Examination (SEE)**

**Maximum Marks: 30**

**Duration: I Hrs.**

Note: All questions are compulsory. Each question has an internal choice.

Question Number	Nature of Questions	Maximum Marks
1)	<b>Attempt any 3</b>	
	a)	15
	b)	
	c)	
	d)	
	e)	
2)	<b>Attempt any 3</b>	
	a)	15
	b)	
	c)	
	d)	
	e)	