



# SACRED HEART COLLEGE (AUTONOMOUS)

Tirupattur – 635 601, Tamil Nadu, S.India

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Ready for  
Every Good Work

A Don Bosco Institution of Higher Education, Founded in 1951 \* Affiliated to Thiruvalluvar University, Vellore \* Autonomous since 1987

Accredited by NAAC (4<sup>th</sup> Cycle – under RAF) with CGPA of 3.31 / 4 at 'A+' Grade

## B.COM(CA)

S.No	Subject Code	Subject Name	Hours	No. of Credits	CIA	SE	Total
<b>SEMESTER I</b>							
1		<b>Part I</b> Language I – Tamil I	5	3	50	50	100
2		<b>Part II</b> General English I	5	3	50	50	100
		Communicative English		1	50	50	100
3		<b>Part III</b>					
		MC- Financial Accounting – I	5	5	50	50	100
4		MC- Modern Banking	5	5	50	50	100
5		<b>Allied:</b>					
		Office Automation	4	3	50	50	100
		Practical –I Office Automation	2	1	50	50	100
6		<b>Part IV</b> Personal Skills	2	1	50	50	100
7		Christian Religion / Value Education - I	2	1	50	50	100
<b>Total</b>			<b>30</b>	<b>23</b>			

S.No	Subject Code	Subject Name	Hours	No. of Credits	CIA	SE	Total
<b>SEMESTER II</b>							
1		<b>Part I</b> Language II – Tamil II	5	3	50	50	100
2		<b>Part II</b> General English II	5	3	50	50	100
		Communicative English		1	50	50	100
3		<b>Part III</b>					
		MC- Financial Accounting – II	5	5	50	50	100
4		MC- Principles of Marketing	5	5	50	50	100
5		<b>Allied:</b>					
		Internet Concepts and Web Design	4	3	50	50	100
		Practical –II					
		Internet Concepts and Web Design	2	1	50	50	100
6		<b>Part IV</b> Social Skills	2	1	50	50	100
7		Christian Religion / Value Education - II	2	1	50	50	100
<b>Total</b>			<b>30</b>	<b>23</b>			

S.No	Subject Code	Subject Name	Hours	No. of Credits	CIA	SE	Total
<b>SEMESTER III</b>							
1		<b>Part III</b>					
		MC- Mercantile Law	5	5	50	50	100
2		MC- Corporate Accounting – I	5	5	50	50	100

3		MC- Fundamentals of Cost Accounting	5	5	50	50	100
4		<b>Allied: Programming with C</b>	4	3	50	50	100
		<b>Practical -III: Programming with C</b>	2	1	50	50	100
5		<b>Allied:</b> Business Mathematics	5	3	50	50	100
6		<b>Part IV</b> Employability Skills - I	2	1	50	50	100
7		Human Rights	2	1	50	50	100
8		<b>Part VI</b> Optional: Certificate Course – I Stock Market Operation		1#			
<b>Total</b>			<b>30</b>	<b>24 +1#</b>			

S.No	Subject Code	Subject Name	Hours	No. of Credits	CIA	SE	Total
<b>SEMESTER IV</b>							
1		<b>Part III</b> MC- Entrepreneurship Development	5	5	50	50	100
2		MC- Corporate Accounting – II	5	5	50	50	100
3		MC- Costing Methods and Techniques	5	5	50	50	100
4		<b>Allied:</b> Relational Database Management System	4	3	50	50	100
		<b>Practical -IV Relational Database Management System</b>	2	1	50	50	100
5		<b>Allied:</b> Business Statistics	5	3	50	50	100
6		<b>Part IV</b> Employability skills - II	2	1	50	50	100
7		Environmental Science	2	1	50	50	100
8		<b>Part V: Extension: Outreach</b>	-	2			
		Groups and Movements	-	2			
		<b>Part VI: Optional Certificate Course – II</b> Tourism Marketing		1 #			
<b>Total</b>			<b>30</b>	<b>28 +1 #</b>			

S.No	Subject Code	Subject Name	Hours	No. of Credits	CIA	SE	Total
<b>SEMESTER V</b>							
1		<b>Part III</b> Computer Organization	4	4	50	50	100
2		MC- Web Programming Using PHP	4	4	50	50	100
3		MC- Practical -V: Web Programming Using PHP	2	2	50	50	100
		MC- Management Accounting	6	4	50	50	100
4		<b>Main Elective: I</b> ME: 1.1 Income Tax Law and Practice - I	6	5	50	50	100
		ME: 1.2 E-Commerce					
		ME: 1.3 Auditing					
5		<b>Subject Skill: I</b> SS: Computerized Accounting - I	4	3	50	50	100

		Practical -VI: Computerized Accounting - I	2	2			
6		<b>Self Study Paper: I</b>	-	1*	50	50	100
		1.1 Business Organisation					
		1.2 Office Administration					
		1.3 Business Management					
	1.4 NPTEL and SWAYAM / MOOC						
7		<b>Part III</b> <b>Non Major Elective:</b> Basics of Accounting using computers (Tally)	2	1	50	50	100
		<b>Summer Internship and Mini Observation Report</b>		2*			
<b>Total</b>			<b>30</b>	<b>25 + 1*+2*</b>			

S.No	Subject Code	Subject Name	Hours	No. of Credits	CIA	SE	Total
<b>SEMESTER VI</b>							
		<b>Part III</b>					
1		MC- Human Resource Management	6	5	50	50	100
2		MC- Management Information System	4	4	50	50	100
3		MC- Financial Management	6	5	50	50	100
4		<b>Main Elective: II</b>	6	5	50	50	100
		ME: 2.1 Income Tax Law and Practice - II					
		ME: 2.2 Investment Management					
		ME: 2.3 Company Law					
5		<b>Subject Skill: II</b> SS: Computerized Accounting - II	4	3	50	50	100
		Practical -VII: Computerized Accounting - II	2	2			
6		<b>Self Study Paper: II</b>	-	1*	50	50	100
		2.1. Customer Relationship Management					
		2.2. Sales Promotion					
		2.3 Business Environment					
	2.4 NPTEL and SWAYAM / MOOC						
7		<b>Part III</b> <b>Non Major Elective:</b> General Commercial Knowledge	2	1	50	50	100
<b>Total</b>			<b>30</b>	<b>25 + 1*</b>			
<b>Grand Total</b>			<b>180</b>	<b>148+2+2+2</b>			

**Sacred Heart College (Autonomous), Tirupattur District**

**1.2.1 List of New Courses**

**Department: BCom (CA)**

S.No	Course Code	Course Name
1.	CC313	Allied: Programming with C
2.	PCC302	Practical -III: Programming with C
3.	CC410	Part III: MC- Entrepreneurship Development
4.	CC412	MC- Costing Methods and Techniques
5.	CC414	Allied: Relational Database Management System
6.	PCC403	Practical -IV Relational Database Management System

**Semester – III**

**Allied: Programming with C**

**Semester – III**

**4 Hours/3 Credit**

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**CC313 PROGRAMMING WITH C**

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**Course Objectives**

To enhance their analyzing and problem-solving skills and use the same for writing programs in C.  
To develop logics and that will help them to create programs, applications in C.  
To identify programming task involved in a given computational problem.  
To identify tasks in which the numerical techniques learned are applicable and apply them to write programs.

**Course Outline**

**UNIT – I: INTRODUCTION OF C PROGRAMMING**

Steps Involved in Computer Programming – Problem Definition – Outlining The Solution – Flow Chart – Developing Algorithms - Structure of a C program – Basic data types– constants and variables– operators and expressions – Control Constructs (if, switch, while, do...while, for, break and continue, exit() function, goto and label).

## **UNIT – II: ARRAYS AND FUNCTIONS**

Arrays (declaration, one and two dimensional arrays) - Character Arrays and Strings. Function Fundamentals (General form, Function Definition, Function arguments, return value) – Parameter passing: call-by-value and call-by-reference – Recursion – Passing Arrays to Function – Passing Strings to Function.

## **UNIT – III: POINTERS**

Understanding Pointers – Accessing the Address of a Variable – Declaring the Pointer Variables – Initialization of Pointer Variables – Accessing a Variable through its Pointer – Pointer Expressions – Pointers and Arrays – Pointers and Character Strings – Array of Pointers – Pointers as Function Arguments – Functions returning Pointers – Pointers to Functions.

## **UNIT – IV: STORAGE CLASSES, STRUCTURES AND UNIONS**

Scope rules (Local variables and global variables, scope rules of functions) -Type modifiers and storage class specifier. Structures – Basics of Structure – Declaring of Structure – Referencing Structure elements - Array of Structures – Nesting of Structures - Passing Structures to function – Pointers and Structures - Unions.

## **UNIT – V: FILE MANAGEMENT IN C**

Introduction – Defining and Opening a File – Closing a File – Input / Output Operations on Files – Command Line Arguments.

### **Teaching Resources**

#### **i. Text Book**

E. Balagurusamy, “Programming in ANSI C”, Seventh Edition, McGraw Hill Education Private Limited, NewDelhi: 2017.

**Unit – I: Ch. 1 – 6**

**Unit – II: Ch. 7 – 9**

**Unit – III: Ch. 11**

**Unit – IV: Ch. 10**

**Unit – V: Ch. 12**

#### **ii. References**

SukhenduDey and Debobrata Dutta, “Complete Knowledge in C”, Narosa Publishing House Pvt Ltd, 2009.

Yashavant P. Kanetkar, “Let Us C, 13<sup>th</sup> Edition, BPB Publications, India, 2013.

### iii. Web References

#### Online Tutorial

[www.learn-c.org](http://www.learn-c.org)

<https://www.tutorialspoint.com/cprogramming/index.htm>

[www.w3schools.in/c-tutorial](http://www.w3schools.in/c-tutorial)

#### Online Quiz

[https://www.tutorialspoint.com/cprogramming/cprogramming\\_online\\_quiz.htm](https://www.tutorialspoint.com/cprogramming/cprogramming_online_quiz.htm)

<http://www.mycquiz.com>

#### Online Compiler

[https://www.tutorialspoint.com/compile\\_c\\_online.php](https://www.tutorialspoint.com/compile_c_online.php)

<https://www.remoteinterview.io/online-c-compiler>

#### Supplement Learning

Files

Memory management

Type casting

Recursion

Command line arguments

### Semester – III

#### Practical -III: Programming with C

Semester – III

4 Hours/3 Credit

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#### PCC302 PRACTICAL – III: PROGRAMMING WITH C

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Data types

Operators and Expressions

Decision making statement

Looping statement

Arrays

Functions

Structures

Unions

Pointer

Files

**Semester –IV**

**Part III: MC- Entrepreneurship Development**

Semester –IV

Hours: 5 / Credit: 5

Subject Code: **CC410 Entrepreneurship Development**

**Course Objectives:**

To understand the fundamental knowledge of Entrepreneurship.

To educate the students about MSME's

To familiarize the students about Lean Startup's.

To impart knowledge of government subsidies and incentives.

To know about social entrepreneurship.

**Course Outcomes:**

On the successful completion of the course, students will be able to

CO	CO – Statements	Cognitive Levels (K –Levels)
CO1	Acquire the functions and factors influencing Entrepreneurship.	K1 - K4
CO2	Explain the nuance of MSME's Entrepreneurship.	K1 - K4
CO3	Construct the concepts of Startup's and Incubation Centre.	K1 - K4
CO4	Identifying support institutions and Government schemes and policies towards entrepreneurship.	K1 - K4
CO5	Predict the require skill to successful social entrepreneurs.	K1 - K5

COS	Programme Outcome							Programme Specific Outcome					Mean Score of CO's
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	2	3	3	3	2	2	3	3	3	3	3	3	2.75
CO2	3	2	2	3	3	3	2	3	2	2	2	3	2.50
CO3	3	3	3	2	3	3	3	2	3	2	3	3	2.75
CO4	2	2	3	2	2	3	3	3	2	2	3	3	2.50
CO5	3	2	3	3	3	2	3	2	3	3	3	2	2.67
<b>Mean Overall Score</b>													<b>2.63</b>

## **Unit - I: Entrepreneurship**

Meaning, Definition and characteristics of Entrepreneurship and Entrepreneur- Functions of Entrepreneur, Factors influencing Entrepreneurship - Advantages and Limitations, Qualities of an Entrepreneur, Types of Entrepreneurs and brief history about successful entrepreneurs - Role of artificial intelligence in developing Enterprises

## **Unit - II: Micro, Small and Medium Enterprises (MSME)**

Meaning, Definition, investment limit, Ownership Patterns of Micro, Small and Medium enterprise. Products and services of MSME, Role played by MSME in the development of Indian Economy, Problems faced by MSME and the steps taken to solve the problems, Stages in setting up of MSME

## **Unit - III: Start-Ups**

Meaning, definition features types, benefit and limitation of startups. Players in the promotion of startups, the role of incubation Centre's in grooming youngsters for startups - lean startups - preparation of business plan & Proposal - feasibility reports: Financial, technical, marketing, product service and legal. Causes for success and failure of start-ups in India, Start-ups India scheme, features eligibility, loan facilities matching grant, minimizing section imbalance through the promotion of startups in urban and rural India, Women entrepreneurs in start-ups

## **Unit - IV: Financial Institutions in the Promotion of Entrepreneurs'**

Financial assistance by Commercial banks, co-operative banks, Government Assistance, through SFCs SIDBI, IFCI, Non-financial assistance from DIC, SISI, SHG, KVIC –Schemes: MUDRA, CGMSE - Financial incentives for MSMEs and Tax Concessions – other financing options: Venture capital, Crowd funding, Angel investors.

## **Unit - V: Social Entrepreneurship**

Meaning – Definition – Characteristics of Social Entrepreneurship – Timmons Model of Entrepreneurship process – PCDO Framework (People, Context, Deal and Opportunities) – Sources of Social Entrepreneurship – Qualities and skills of social entrepreneurship – Successful social Entrepreneurship Initiatives in India.

### **Field Activities:**

1. Preparation of a Project report to start a Start-ups Unit.
2. Preparing a letter to the concerned authority-seeking license for the proposed MSME
3. Visit an incubation centre and submit report on its activities
4. Chart showing financial assistance available to MSME along with rates of interest.
5. Bring out social and agricultural Entrepreneurship undertaking details



**Text book:**

E. Gordon K. Natarajan “Entrepreneurship Development”, Himalaya publishing house

**Reference Books:**

Gupta C B & Srinivasan N.P. Entrepreneurial Development Sultan Chand & Sons, New Delhi 2014

S.S Khanka, Entrepreneurial Development S Chand, New Delhi

S. Anilkumar, Entrepreneurial Development - New Age Publications (P) Ltd 2003

[Ranbir Singh](#), Entrepreneurial Development S.K. Kataria& Sons; Reprint 2013 edition

**Semester –IV****MC- Costing Methods and Techniques**

Semester –IV

Hours: 5 /

Credit: 5

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Subject Code: **CC412 Costing Methods and Techniques**

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**Course Objectives**

To enlighten the students on the job, batch and contract costing.

To comprehend the methods of costing adopted in transport industries.

To enable the students to compute the process cost of manufacturing industries.

To acquire knowledge and practical skills for the application of Marginal Costing technique at various managerial decision-making condition. To impart knowledge on standard costing, material and labour variances.

**Course outcomes:**

On successful completion of this course, students will be able to

CO	CO – Statements	Cognitive Levels (K –Levels)
1	Understand the job, batch and contract costing and could estimate the cost of contract	K1 - K4
2	Analyse the operational cost involved in transport sector and minimize it.	K1 - K4
3	Apply the process costing technique and identify the cost of each process in manufacturing industries	K1 - K4
4	Evaluate the managerial decisions like make or buy and etc, based on the concept of marginal costing	K1 – K5
5	Understand about standard costing and compute material and labour variances	K1 - K4
	K1 -Remember; K2 -Understand; K3 -Apply; K4 -Analyze; K5-Evaluate; K6 –Create	

COS	Programme Outcome							Programme Specific Outcome					Mean Score of CO's
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	
<b>CO1</b>	3	2	2	3	2	2	3	2	2	3	3	3	2.50
<b>CO2</b>	3	2	2	3	3	3	2	3	3	2	3	3	2.67
<b>CO3</b>	2	2	3	2	3	2	3	2	2	3	3	3	2.50
<b>CO4</b>	3	3	3	3	2	3	3	3	3	3	2	2	2.75
<b>CO5</b>	3	3	3	2	3	3	3	3	2	3	3	2	2.75
<b>Mean Overall Score</b>												<b>2.63</b>	

### **Unit- I: Job, Batch and Contract Costing**

Job Costing – Definition – Features – Preparation of Job Cost Sheet - Batch Costing – Definition – EBQ - Contract Costing – Definition - Work certified and uncertified – Profit or loss on contract– Preparation of Contract Account

### **Unit -II: Operating Costing and Reconciliation**

Operating Costing - Definition – Cost unit - Cost Classification - Cost Accumulation – Transport Costing - Preparation of Operating Cost Sheet - Reconciliation of Cost and Financial Accounts - Preparation of reconciliation statement

### **Unit – III Process Costing**

Definition – Features - Job Vs Process Costing – Normal and Abnormal Process losses – Inter Process Profit– Equivalent Production - Basics of Joint Product Costing and By-Product Costing – Preparation of Process cost account

### **Unit – IV Marginal Costing**

Definition –Features – Advantages – Limitations – Cost-Volume-Profit Analysis – Fixed Cost – Variable Cost – Contribution – Break Even Analysis – MOS – Make or Buy Decisions.

### **Unit - V: Standard Costing**

Definition and features of standard costing – Steps involved in standard costing– Advantages of standard cost – Limitations of standard cost – Material variances – Labour variances.

**Field Activities:**

A case will be provided to every student on the concept of Make or Buy Decision. Student should analyze the case based on the concept of Marginal Costing and submit the report.

Two problems from CMA/CA courses will be provided to every student. They must work out the solution and submit it as report to the course teacher.

Every student should visit any production company and learn the concepts of process costing.

**Text Book:**

T.S. Reddy and Reddy, Cost Accounting, Margham Publications, Chennai.

**Reference Books:**

Jain, S.P. and K.L. Narang. Cost Accounting: Principles and Methods. Kalyani Publishers, New Delhi. 2007

R.S.N. Pillai and V. Bagavathi, Cost Accounting, S.Chand, Chennai 2004

Maheshwari, S.N. and S.N. Mittal. Cost Accounting: Theory and Problems. ShriMahabir Book Depot 2006

A.Murthy & S. Gurusamy, Cost Accounting, Vijay Nicolas, New Delhi.2008

**Note: Latest edition of text book may be used.**

**Semester –IV****Allied: Relational Database Management System****Semester – IV****4 Hours/3 Credits**

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**CC414 RELATIONAL DATABASE MANAGEMENT SYSTEM**

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**Course Objectives**

To understand the basic concepts of Database and Data Models.

To learn how to implement the query language in database.

To understand the advance features query language used to design an efficient database

To know database design models exist.

To understand the consequences of bad database design and how it can be overcome.

## 2. Course Outline

### UNIT – I: BASIC CONCEPTS AND DATA MODELS

Basic Concepts: Data modelling for database - The three level architecture proposal for DBMS – Components of DBMS - Advantage and Disadvantage of a DBMS. Data Models: Data Models Classification - Entity Relationship Model – Relational Data Model – Network Data Model - Hierarchical Model - Comparison.

### UNIT – II: INTRODUCTION TO SQL

Overview of SQL Query Language – SQL Data Definition – Basic Structure of SQL Queries – Additional Basic Operations – Set Operators – Null Values – Aggregate Functions – Nested Sub queries – Modification of the Databases.

### UNIT – III: ADVANCED SQL

Join Expressions - Views – Integrity Constraints – Authorization – Stored Procedures and Functions – Indexing: Basic Concepts.

### UNIT – IV: DATABASE DESIGN AND E-R MODEL

Overview of the design process – The Entity-Relationship Model – Constraints – Entity – Relationship – Entity-Relationship Diagrams – Entity Relationship design issues – Extended E-R Features – Other aspects of Database Design.

### UNIT – V: RELATIONAL DATABASE DESIGN

Features of Good Relational Designs – Atomic Domains and First Normal Form – Decomposition using Functional dependencies – Decomposition using Functional Dependencies – Decomposition using Multivalued Dependencies – More Normal Forms.

## 3. TEACHING RESOURCES

### i) Text Books

Bipin C Desai, “An Introduction to Database System”, Galgotia Publications Pvt.Ltd, New Delhi 1999.

**UNIT – I : Ch.1.1, 1.4 - 1.6, 2.3 - 2.4 & 2.6 - 2.9**

Abraham Silberschatz , Henry F Korth, S Sudharshan , “Database System Concepts” , MC Graw Hill, 6<sup>th</sup> Edition 2013.

**UNIT – 2 : Ch. 3, 4**

**UNIT – 3 : Ch. 4.1, 4.2, 4.4, 4.6 & 5**

**UNIT – 4 : Ch. 7**

**UNIT – 5 : Ch. 8**

## ii) References

Peter Rob, Carlos Coronel, “Database Systems – “Design, Implementation and Management”c, GalgotiaPublicaitons.  
C.J. Date, “Introduction to Database System”, Vol 1, Narosa Publishing House,New Delhi.  
S. K. Singh, “Database Systems”, Third Edition. 2009.  
Ramakrishnan. Gehrke, “Database Management Systems”, International Edition, 2003.  
RajeshkharSunderraman, “Oracle 8 Programming A Primer”, AdditionWesley Publication, New Delhi, 2000.

## iii) Web References

### Online Tutorial

<https://www.tutorialspoint.com/sql/sql-rdbms-concepts.htm>  
<http://searchoracle.techtarget.com/tutorial/Learning-Guide-RDBMS-fundamentals>

### Online Quiz

<https://www.quia.com/quiz/164512.html>  
<https://www.wiziq.com/online-tests/22152-rdbms-concepts>

### Online Compiler

[https://www.tutorialspoint.com/execute\\_sql\\_online.php](https://www.tutorialspoint.com/execute_sql_online.php)  
<https://kripken.github.io/sql.js/GUI/>

## SUPPLEMENT LEARNING

SQL Wild cards  
Temporary Tables  
Clone Tables  
Using Sequences  
Handling Duplicates

## Semester –IV

### Practical -IV Relational Database Management System

Semester – IV

4 Hours/3 Credits

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## PCC403 RELATIONAL DATABASE MANAGEMENT SYSTEM

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### Course Objectives

- To understand the basic concepts of Database and Data Models.
- To learn how to implement the query language in database.
- To understand the advance features query language used to design an efficient database
- To know database design models exist.
- To understand the consequences of bad database design and how it can be overcome.

## 2. Course Outline

### UNIT – I: BASIC CONCEPTS AND DATA MODELS

Basic Concepts: Data modelling for database - The three level architecture proposal for DBMS – Components of DBMS - Advantage and Disadvantage of a DBMS. Data Models: Data Models Classification - Entity Relationship Model – Relational Data Model – Network Data Model - Hierarchical Model - Comparison.

### UNIT – II: INTRODUCTION TO SQL

Overview of SQL Query Language – SQL Data Definition – Basic Structure of SQL Queries – Additional Basic Operations – Set Operators – Null Values – Aggregate Functions – Nested Sub queries – Modification of the Databases.

### UNIT – III: ADVANCED SQL

Join Expressions - Views – Integrity Constraints – Authorization – Stored Procedures and Functions – Indexing: Basic Concepts.

### UNIT – IV: DATABASE DESIGN AND E-R MODEL

Overview of the design process – The Entity-Relationship Model – Constraints – Entity – Relationship – Entity-Relationship Diagrams – Entity Relationship design issues – Extended E-R Features – Other aspects of Database Design.

### UNIT – V: RELATIONAL DATABASE DESIGN

Features of Good Relational Designs – Atomic Domains and First Normal Form – Decomposition using Functional dependencies – Decomposition using Functional Dependencies – Decomposition using Multivalued Dependencies – More Normal Forms.

## 3. TEACHING RESOURCES

### i) Text Books

Bipin C Desai, “An Introduction to Database System”, Galgotia Publications Pvt.Ltd, New Delhi 1999.

**UNIT – I : Ch.1.1, 1.4 - 1.6, 2.3 - 2.4 & 2.6 - 2.9**

Abraham Silberschatz , Henry F Korth, S Sudharshan , “Database System Concepts” , MC Graw Hill, 6<sup>th</sup> Edition 2013.

**UNIT – 2 : Ch. 3, 4**

**UNIT – 3 : Ch. 4.1, 4.2, 4.4, 4.6 & 5**

**UNIT – 4 : Ch. 7**

**UNIT – 5 : Ch. 8**

## ii) References

Peter Rob, Carlos Coronel, “Database Systems – “Design, Implementation and Management”c, GalgotiaPublicaitons.  
C.J. Date, “Introduction to Database System”, Vol 1, Narosa Publishing House,New Delhi.  
S. K. Singh, “Database Systems”, Third Edition. 2009.  
Ramakrishnan. Gehrke, “Database Management Systems”, International Edition, 2003.  
RajeshkharSunderraman, “Oracle 8 Programming A Primer”, AdditionWesley Publication, New Delhi, 2000.

## iii) Web References

### Online Tutorial

<https://www.tutorialspoint.com/sql/sql-rdbms-concepts.htm>

<http://searchoracle.techtarget.com/tutorial/Learning-Guide-RDBMS-fundamentals>

### Online Quiz

<https://www.quia.com/quiz/164512.html>

<https://www.wiziq.com/online-tests/22152-rdbms-concepts>

### Online Compiler

[https://www.tutorialspoint.com/execute\\_sql\\_online.php](https://www.tutorialspoint.com/execute_sql_online.php)

<https://kripken.github.io/sql.js/GUI/>

## SUPPLEMENT LEARNING

SQL Wild cards

Temporary Tables

Clone Tables

Using Sequences

Handling Duplicates