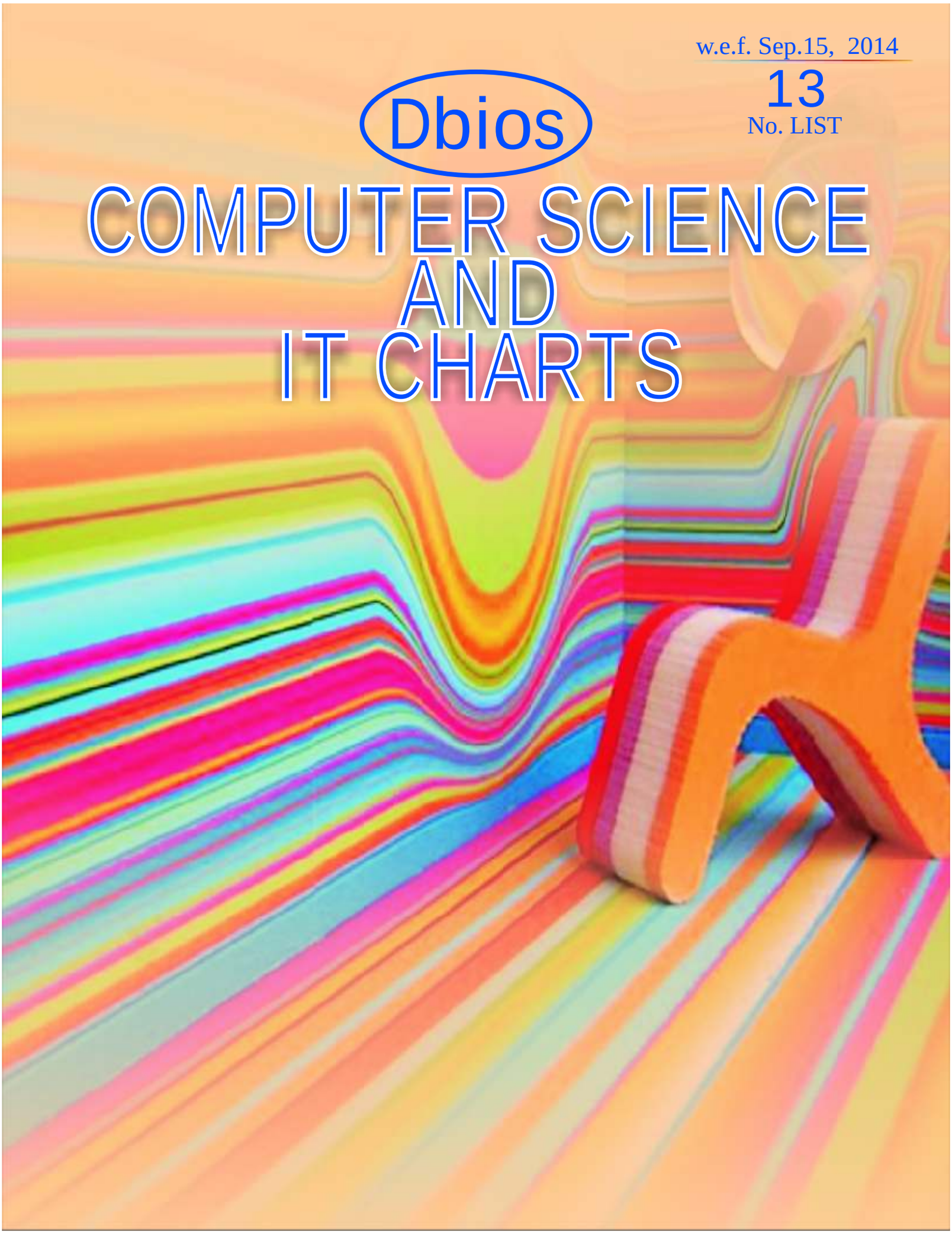
w.e.f. Sep.15, 2014

13
No. LIST

Dbios

# COMPUTER SCIENCE AND IT CHARTS



Dbios

# Dbios COMPUTER PIONEERS

**Size: 12”X18”Laminated and Framed on Board**

**OR Size: 20”X26” Laminated and attached with Strips**

**Size: 20”X26”Laminated and Framed on Board**

| | PIONEERS | CONTRIBUTIONS |
|---|---|---|
| SCP 61 | Charles Babbage | Father of Computer |
| SCP 62 | Blasis Pascal | First Mechanical Calculator |
| SCP 63 | Ada Augusta | The First programmer |
| SCP 64 | William Bill Gates | Founder of Microsoft |
| SCP 65 | Thomas J Watson | Founder of IBM |
| DCP 11 | John Cocke | The concept of the Reduced Instruction Set Computer (RISC). |
| DCP 12 | Douglas C. Engelbart | In Developing the Mouse as a Input Device, |
| DCP 13 | Bob Frankston | Advancing the utility of Personal Computers |
| DCP 14 | Carver Mead | Pioneering the automation, methodology and teaching of integrated circuit design. |
| DCP 15 | Ken Olsen | For his introduction of the Minicomputer. |
| DCP 16 | Pickette Wayne D | Inventor of the Principle of CPU on Chip |
| DCP 17 | Dr. Vinton G. Cerf | Father of internet |
| DCP 18 | Bob Kahn | Developed the TCP/IP |
| DCP 21 | Ken Thompson | The Unix Operating System, and for development of the c Programming Language. |
| DCP 24 | Paterson Tim | Developer of DOS |
| DCP 25 | Dennis Ritchie | Pioneered the C Programming Language |
| DCP 26 | Bjarne Stroustrup | Pioneered the C++ Programming Language |
| DCP 27 | James Gosling | Developed the Java Programming Language |
| DCP 28 | Brendan Eich | Creator of Java Script |
| DCP 29 | Larry Ellison | In Developing Oracle |
| DCP 31 | William (Bill) Coleman | Pioneer of Symantec |
| DCP 32 | Michael Saul Dell | Founder of Dell |
| DCP 33 | Mr. Raj Saraf | Founder of Zenith Computers |
| DCP 34 | Azim Prem Ji | Founder of Wipro Computers |
| DCP 35 | N. R. Narayana Murthy | Founder of Infosysys |
| DCP 36 | Ratan Tata (F.C.Kohli) | Founder of TCS |
| DCP 38 | Shiv Nadar | HCL Ltd. |
| DCP 39 | Flint Charles Ranlett | Founding Father of IBM |
| DCP 40 | Jason Allen | Co-Founder of Microsoft |
| DCP 41 | Gordon E. Moore & Robert Noyce | Founder of INTEL |
| DCP 42 | Andy Grove | Founder and Growth of INTEL |
| DCP 43 | William Hewlett and David Packard | Founder of HP |
| DCP 44 | Steve Jobs | CEO & Founder of Apple Computers |
| DCP 45 | Steve wozniak | Co-Founder Apple Computer |
| DCP 46 | Jerry Yang & David Filo | Yahoo.com |
| DCP 47 | Larry Page and Sergey Brin | Google.com |
| DCP 48 | Sabeer Bhatia | Hotmail.com |
| DCP 49 | Grady Booch | Developing the Unified Modeling Language |
| DCP 50 | Ted Codd | SQL Server |
| DCP 51 | Allen Mathison Turing | The Turing Bombe Rebuild Project |
| DCP 52 | Mark Elliot Zuckerberg | Facebook |


**SCP 65**

# Dbios COMPUTER HISTORY CHARTS

**Size: 20”X26”Laminated and attached with Strips**

**Size: 20”X26”Laminated and Framed on Board**

DCH 01 Early Generation Computer
DCH 02 First Generation Computer
DCH 03 Second Generation Computer : Transistor
DCH 04 Third Generation Computer : Post 1960's
DCH 05 History of Internet


**DCH 05**

Dbios MADE DBMS EASY

CD Rom Version :

O.H.P. Transparencies Version: (Set of 160 Transparency)

Print Out (Transparency) + CD Rom:

# Dbios COMPUTER/ IT Charts

**Size: 20”X26”Laminated and Attached with Strips**

**OR Size: 20”X26”Laminated and Framed on Board**

## BASIC COMPUTER

CH 2101 SUMMARY OF DOS COMMANDS
CH 2102 DOS COMMANDS
CH 2103 AUXILLARY STORAGE DEVICES
CH 2104 MEMORIES
CH 2108 INPUT DEVICES
CH 2109 OUTPUT DEVICES
CH 2121 FUNDAMENTALS OF 'C'-I
CH 2122 FUNDAMENTALS OF 'C'-II
CH 2123 FUNDAMENTALS OF 'C'-III
CH 2124 PROGRAMMING LANGUAGE
CH 2125 TYPICAL TELNET & FTP COMMANDS
CH 2126 OOPS FEATURES

## DATA BASE MANAGEMENT SYSTEM

CH 2114 DATA MODELS
CH 2131 DBMS ARCHITECTURE
CH 2132 DATA BASE SYSTEM vs FILE SYSTEM
CH 2133 ENTITY RELATIONSHIP DIAGRAM
CH 2134 NORMALISATIONS
CH 2135 RELATIONAL ALGEBRA
CH 2136 SQL COMMANDS
(STRUCTURED QUERRY LANGUAGE)

## NETWORKING

CH 2105 OSI MODELS
CH 2106 HUB/SWITCH
CH 2107 NETWORK TOPOLOGIES
CH 2110 MODES & FORMS OF DATA TRANSMISSION
CH 2111 TRANSMISSION MEDIAS
CH 2112 TYPES OF COMPUTER NETWORKS
CH 2113 COMMUNICATION SWITCHING TECHNIQUES
CH 2141 IP-ADDRESS

## A FEW PREVALENT SOFTWARES

CH 2115 MICROSOFT WORD
CH 2116 MICROSOFT EXCEL
CH 2117 MICROSOFT POWER POINT
CH 2118 THE VISUAL BASIC IDE
CH 2119 THE TOOL BARS OF VB

## SOFTWARE ENGG.

CH 2145 SOFTWARE LIFE CYCLE MODELS
CH 2146 SOFTWARE TESTING TECHNIQUES

## OPERATING SYSTEM

CH 2151 OS COMPONENTS & FUNCTIONS
CH 2152 LINUX COMMANDS
CH 2153 CPU SCHEDULING ALGORITHMS
CH 2154 DEADLOCK MANAGEMENT
CH 2155 PROCESS MANAGEMENT

## ARTIFICIAL INTELLIGENCE

CH 2156 MAJOR COMPONENTS OF ARTIFICIAL INTELLIGENCE
CH 2157 EXPERT SYSTEM ARCHITECTURE
CH 2158 MAJOR ROBOT COMPONENTS

## COMPUTER GRAPHICS

CH 2161 GEOMETRIC TRANSFORMATIONS
CH 2162 LINE DRAWING ALGORITHMS
CH 2163 CIRCLE DRAWING ALGORITHMS
CH 2164 ELLIPSE DRAWING ALGORITHMS
CH 2165 PLANAR PROJECTIONS
CH 2166 CLIPPING ALGORITHMS
CH 2167 WINDOWING TRANSFORMATIONS

## DATA STRUCTURES

CH 2171 FUNDAMENTALS OF DATA STRUCTURES
CH 2172 STACK DATA STRUCTURE
CH 2173 QUEUE DATA STRUCTURE
CH 2174A LINKED LISTS-I
CH 2174B LINKED LISTS-II
CH 2175 TREE DATA STRUCTURES
CH 2176 SEARCHING TECHNIQUES
CH 2177 TYPICAL SORTING TECHNIQUES

## MICRO PROCESSORS

Dbios

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### COMPUTER HARDWARE CHARTS

CH 2180 IDE INTERFACE
CH 2181 HARD DISK DRIVE
CH 2182 COMPUTER POWER SUPPLY
CH 2183 CD ROM DRIVE
CH 2184 PC PORTS & CONNECTORS
CH 2185 SEMI CONDUCTOR MEMORIES
CH 2186. BACKUP POWER SUPPLY
CH 2187. PC MOTHERBOARDS
CH 2188. SCSI INTERFACE
CH 2189. FLOPPY DISK DRIVE - ARCHITECTURE & WORKING
CH 2190. PC KEYBOARDS
CH 2191. PC MOUSE
CH 2192. COMPUTER SYSTEM BUSES

New Additions

# UPCOMING ADVANCE TOPICS

## Advance topics in Programming

1. .NET Technologies
2. Java features
3. MATLAB Fundamentals
4. J2ME
5. Compiler Design

## Advance Topics in Database Technologies

1. Big Data Concept
2. Data Mining
3. Data Warehousing
4. ORACLE System
5. MYSQL

## Advance web Technologies

1. LAMP Technologies
2. Web Browsers
3. E-Commerce
4. PHP
5. HTML Fundamentals
6. Web Servers

## Advance Computer Communication Technologies

1. Working of Internet
2. Cluster Computing
3. Network Security
4. Stenography
5. Hacking and Attacking
6. Networking Simulator (NS2)
7. Distributed Computing
8. Mobile Computing

## Latest Trends in Computing

1. Neural Networks
2. Fuzzy Logic Concepts
3. Biometric System concepts
4. Cloud computing
5. Image Processing
6. Open Source Technologies
7. Android Operating Systems
8. Natural Language Processing

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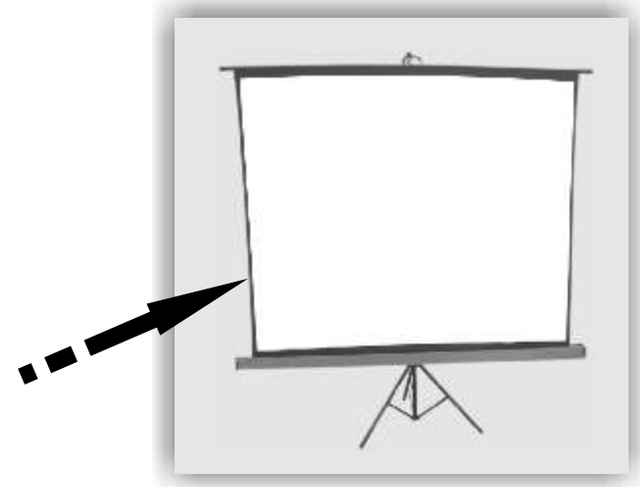
## PROJECTION SCREEN

**PROJECTION SCREEN (WALL HANGING ):**

**Size 120x130cm.**

**PROJECTION SCREEN (TRIPOD MODEL):**

**Size 120x130cm.**



# Dbios made DBMS easy

**O.H.P. Transparencies Version :** **(Set of 160 Transparency)** **CD Rom Version :**

**Print Out (Transparency) + CD Rom :**

## Unit-I Introduction to Database Systems

1.1 What is DBMS?
1.2 Advantages of DBMS over file processing systems
1.3 Various views of database
1.4 Data independence
1.5 Database Languages
1.6 Database users
1.7 Responsibilities of Database Administrator
1.8 Data base Models
1.9 Hierarchical Model
1.10 Network Model
1.11 Network Model-Merits& demerits.
1.12 Three levels architecture of Database system.
1.13 History of databases.
1.14 Database applications
1.15 Disadvantages of using a DBMS

## Unit-II Entity -Relationship model

2.1 Introduction
2.2 Components of E-R Model
2.3 Types of Attributes
2.4 Relationships
2.5 Mapping Constraints
2.6 Cardinality Ratio
2.7 Participation Constraints
2.8 Symbols for E-R Diagrams
2.9 E-R diagram Methodology
2.10 E-R diagrams-Example
2.11 E-R diagrams-Example
2.12 E-R diagrams-Example

## Unit-III File Organization for database systems

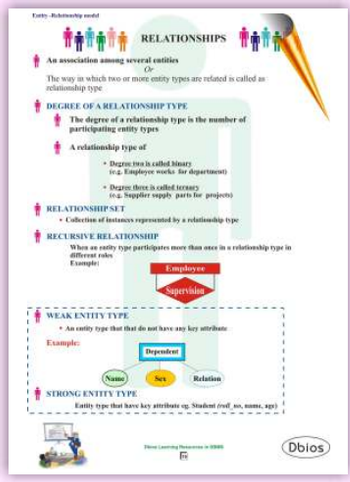
3.1 What is File Organization for Databases?
3.2 Access Methods & Types
3.3 Sequential Access
3.4 Direct files Method
3.5 Hashing & its types
3.6 Hashing techniques (contd)
3.7 Hashing techniques (contd)
3.8 Indexed sequential file Access method
3.9 Inverted File organization
3.10 Inverted File organization(contd)
3.11 B-trees Index files
3.12 Factors for selecting File organization.

## Unit-IV Relational Model

4.1 Relational Model
4.2 Properties of Relations
4.3 Relational Algebra
4.4 Selection operation
4.5 Projection operation
4.6 Set operations
4.7 Cartesian Product operation
4.8 Rename operation
4.9 Division operation
4.10 Join operation
4.11 Examples: *join operations*
4.12 Tuple Relational calculus
4.13 Domain Relational calculus

## Unit-V Introduction to Query Languages

5.1 Overview of RDBMS
5.2 CODD'S 12-Rules
5.3 Concept of Keys
5.4 Structured query language (SQL)
5.5 SQL components
5.6 CREATE Table command
5.7 ALTER Table command
5.8 INSERT command
5.9 UPDATE command
5.10 DELETE command
5.11 SELECT command
5.12 DISTINCT clause
5.13 BETWEEN clause
5.14 IN clause
5.15 ORDER BY clause
5.16 GROUP BY clause
5.17 HAVING clause
5.18 Data types in SQL
5.19 SQL Functions
5.20 SQL functions(contd)
5.21 SQL operators
5.22 JOIN operations
5.23 JOIN operation(contd.)
5.24 PRIMARY KEY constraints
5.25 UNIQUE KEY constraints
5.26 FOREIGN KEY constraints
5.27 CHJECK constraints
5.28 DCL Commands
5.29 Indexes
5.30 Subquery
5.31 views
5.32 Views(contd)
5.33 Sequences
5.34 PL/SQL
5.35 PL/SQL(contd)
5.36 Triggers
5.37 Triggers(contd)




# Dbios made DBMS easy

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**Print Out (Transparency) + CD Rom :**

## Unit-VI Database Normalization

6.1 Normalization
6.2 Modification Anomalies
6.3 Functional dependencies
6.4 Normalization Process
6.5 First Normal Form- 1NF
6.6 Second Normal form-2NF
6.7 Third Normal Form-3NF
6.8 Boyce-Codd Normal form-BCNF
6.9 Decomposition and MVD
6.10 Multivalued Dependencies- 4NF
6.11 Join-Dependencies-5NF
6.12 Domain Key Normal Form

## Unit-VII Introduction to Concurrency control

7.1 Transactions
7.2 ACID properties of transactions
7.3 Transaction Logs
7.4 Transaction schedules
7.5 Transaction schedules (contd.)
7.6 Recoverability
7.7 Serializability
7.8 Testing for Serializability
7.9 Concurrency problems
7.10 Concurrency problems (contd.)
7.11 Techniques for concurrency Control
7.12 Locking Mechanism
7.13 Shared/ Exclusive Locks
7.14 Two phase locking
7.15 Deadlock
7.16 Concurrency control using time stamp ordering
7.17 Thomas's Write Rule
7.18 Multi-version concurrency control techniques
7.19 Multi -version technique based on Time stamp ordering

## Unit-VIII Database Backup, Recovery and Security

8.1 Database Backup
8.2 Types of Backups
8.3 How to backup database
8.5 Database Recovery
8.5 Causes of Failure
8.6 Recovery Concepts
8.7 Backup facility
8.8 Journalizing facility
8.9 Recovery using deferred update
8.10 Recovery using immediate update
8.11 Shadow paging
8.12 Database security
8.13 Data security risks
8.14 Data security issues
8.15 Dimensions of security
8.16 Database security systems
8.17 Database security systems(cont'd)
8.18 System Viability Factors

## Unit- IX Advance Database systems

### Section1: Distributed databases

9.1 Distributed databases (DDBMS)
9.2 Types of DDBMS
9.3 Local vs. Global transactions
9.4 Data Replication
9.5 Data Fragmentation
9.6 Merits & Demerits of DDBMS

### Section2: Object oriented databases

9.7 Object oriented databases (OODBMS)
9.8 Approaches to OODBMS
9.9 OODBMS Features
9.10 Merits & Demerits of OODBMS

### Section3: Parallel databases

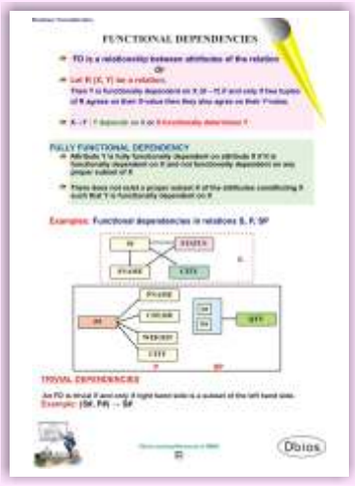
9.11 Parallel databases
9.12 Speed-up & scale-up
9.13 Interconnection Network architecture
9.14 Parallel Database architecture

### Section4: Data mining

9.15 Data Mining (DM)
9.16 Scope & Goals of data mining
9.17 Knowledge discovery in databases (KDD)
9.18 How Data mining works?
9.19 Data mining applications & tools.

### Section5: Data warehousing

9.20 Data warehouse (DWH)
9.21 Features & advantages of DWH
9.22 Data warehouse process & Applications.




# Dbios µP CHARTS

**Size: 30”X40”** **on White Rexine with Plastic Roller :**

## MICRO PROCESSORS

| | |
|---|---|
| CH 1509 | 8086 PIN-LAYOUT & ARCHITECTURE |
| CH 1545 | 8086 INSTRUCTION SET |
| CH 1545A | 8086 INSTRUCTION SET |
| CH 1510 | 8085 BLOCK DIAGRAM |
| CH 1511 | 8085 PIN LAYOUT & SIGNAL REPRESENTATION |
| CH 1512 | 8085 SET INSTRUCTION |
| CH 1550 | 8050 INTERRUPTS |
| CH 1513 | 8255A THE PROGRAMMABLE PERIPHERAL INTERFACE |
| CH 1514 | 8155 & 8755: THE PROGRAMMABLE DEVICE |
| CH 1515 | 8279: THE PROGRAMMABLE KEYBOARD/DISPLAY INTERFACE |
| CH 1516 | 8254 & 8259A: THE PROGRAMMABLE INTERNAL TIMER & INTERRUPT CONTROLLER |

## MICRO CONTROLERS

| | |
|---|---|
| CH 1541 | 8051 ARCHITECTURE & PIN LAYOUT |
| CH 1542 | 8051 BLOCK DIAGRAM |
| CH 1543 | 8051 INSTRUCTION SET |
| CH 1544 | 8051 SFR: SPECIAL FUNCTION REGISTERS |