J.B. INSTITUTE OF ENGINEERING & TECHNOLOGY

(AUTONOMOUS)

ACADEMIC YEAR **2013-14**

http://www.jbiet.edu.in

	COURSE PLAN	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.UMA DEVI
Designation: Assistant Professor
Department:: Computer Science and Engineering

COURSE DETAILS

Name Of The Programme:: B.Tech Batch:: 12-16

Designation:: Assistant Professor

Semester II

Year :II

Department:: CSE

Subject Code

Title of The Subject Data Base Management Systems

No of Students 113

	COURSE PLAN	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.UMA DEVI
Designation: Assistant Professor
Department:: Computer Science and Engineering

1. TARGET

a) Percentage Pass **85**

b) Percentage I class **65**

2. COURSE PLAN

(Please write how you intend to cover the contents: i.e., coverage of Units by lectures, guest lectures, design exercises, solving numerical problems, demonstration of models, model preparation, or by assignments, etc.)

By lectures,design excersises,assignments

3. METHOD OF EVALUATION

3.1. ☐ Continuous Assessment Examinations (CAE 1, CAE 2)

3.2. ☐ Assignments / Seminars

3.3. ☐ Mini Projects

3.4. ☐ Quiz

3.5. ☐ Term End Examination

3.6. ☐ Others

4. List out any new topic(s) or any innovation you would like to introduce in teaching the subject in this Semester.

P.UMA DEVI

Signature of HOD
Date:

Signature of Faculty
Date:

	GUIDELINES TO STUDY THE SUBJECT	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.UMA DEVI

Designation: Assistant Professor

Department:: Computer Science and Engineering

Guidelines for Preparing the Course:

Course Description:
This course introduces database design and creation . Emphasis is on data dictionaries, normalization, data integrity, data modelling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms.

Course Objectives:
1. To understand the different issues involved in the design and implementation of a database system. 2. To study the physical and logical database designs, database modeling, relational, hierarchical, and network models 3. To understand and use data manipulation language to query, update, and manage a database 4. To develop an understanding of essential DBMS concepts such as: database security, integrity, concurrency, 5. To design and build a simple database system and demonstrate competence with the fundamental tasks involved with modeling, designing, and implementing a DBMS.

Learning Outcomes:
1. Define program-data independence, data models for database systems, database schema and database instances. 2. Recall Relational Algebra concepts, and use it to translate queries to Relational Algebra

statements and vice versa.

Identify Structure Query Language statements used in creation and manipulation of Database

Identify the methodology of conceptual modeling through Entity Relationship model.

Identify the methodology of logical model.

Identify the methodology of physical model.

Develop an understanding of the differences between OODBMS, ORDBMS and RDBMS and the practical implications of each approach.

Analyze and design a real database application.

Develop and evaluate a real database application using a database management system.

Improve teamwork management skills.

Enhance negotiation and discussion skills.

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.UMA DEVI
Designation: Assistant Professor
Department:: Computer Science and Engineering

On completion of this Subject / Course the student shall be able to:

S.No.	Objectives	Outcomes
1.	Understand the applications of dbms,difference between filesystems vs dbms, identify the data models ,understand dbms structure	
2.	Identifies the entity ,attributes, identify entity relationship diagrams	Illustrate
3.	Understands the relational algebra concepts, selection ,projection ,relational calculus which helps in understanding queries	Infer Summarize
4.	Able to learn ddl cmds dml cmds, queries	Reproduce Select
5.	Identifies the functional dependencies,decompostions:loss less join ,dependency preserving decomposition Understands the need of normalization, Normal forms I,II,III,IV BCNF is learnt	Convert

		Defend
6.	Understands the the properties of transaction mgmt	Describe (a procedure)
7.	Identifies the recovery management	Distinguish Estimate
8.	Identifies the file organization methods access methods to store the data	Explain why/how

Signature of Faculty
Date:

Note: For each of the OBJECTIVE indicate the appropriate OUTCOMES to be achieved.
Kindly refer Page 16, to know the illustrative verbs that can be used to state the objectives.

	COURSE OUTCOMES	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.UMA DEVI
Designation: Assistant Professor
Department:: Computer Science and Engineering

The expected outcomes of the Course / Subject are:

S.No.	General Categories of Outcomes	Specific Outcomes of the Course
A.	An ability to apply knowledge of mathematics, science, and engineering	The ability to apply the concepts of engineering i.e collecting data, organize the data in the systematic form ,arrange the data in a computational way and this the way in applying mathematics
B.	An ability to design and conduct experiments, as well as to analyze and interpret data	Able to design the ER diagrams as well as interpret the Design of database
C.	An ability to design a system, component, or process to meet desired needs within realistic Constraints such as economic, environmental, social, political, ethical, health and safety, Manufacturability and sustainability	Able to design the db system due to inferring the knowledge
D.	An ability to function on multi-disciplinary teams	Participating in projects, workshops encourages multidisciplinary teams
E.	An ability to identify, formulate, and solve engineering problems	Formulate the queries required to solve the issues in db
F.	An understanding of professional and ethical responsibility	Professional is developed by being in the enterprenuer
G.	An ability to communicate effectively	By conduction of seminars and discussions ability to communicate effectively
H.	The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context	The subject learnt by students can be implemented in real time systems whenever it is necessary

I.	A recognition of the need for, and an ability to engage in life-long learning	
J.	A knowledge of contemporary issues	The knowledge of present versions of the tools are updated
K.	An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.	Skills are developed while working for the project during academic calendar.

Objectives – Outcome Relationship Matrix (Indicate the relationships by ☒ mark).

Outcomes / Objectives	A	B	C	D	E	F	G	H	I	J	K
1.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
3.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
4.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
5.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
6.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
7.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
8.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
9.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
10.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

	COURSE SCHEDULE	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.Uma Devi
Designation: Assistant Professor
Department:: CSE
The Schedule for the whole Course / Subject is::

S. No.	Description	Duration (Date)		Total No. of Periods
		From	To	
1.	Introduction to databases	9.12.13	18-12-13	7
2.	Description on ER diagrams	19-12-13	31-12-13	7
3.	Relational algebra	1-1-14	29-1-14	12
4.	Query Language	30-1-14	18-2-14	12
5.	SchemaRefinement	19-2-14	28-2-14	12
6.	Transaction management	1-3-14	13-3-14	10
7	Recovery management	17-3-14	22-3-14	6
8	File Organization	24-3-14	4-4-14	12

Total No. of Instructional periods available for the course: Hours / Periods

	SCHEDULE OF INSTRUCTIONS UNIT - I	2013-14 Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.UMA DEVI
Designation: Assistant Professor
Department:: Computer Science and Engineering
The Schedule for the whole Course / Subject is::

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1	9-12-13	1	Data base System Applications		TB-1, 1 Pg 1
2	10-12-13	1	data base System VS file System		TB-1 Pg3
3	11-12-13	1	View of Data – Data Abstraction Instances and Schemas		TB-1 Pg5
4	14-12-13	1	data Models the ER Model , Relational Model, Other Models ,		TB-1 Pg 7
5	16-12-13	1	Database languages DDL , DML		TB-1 Pg11
6	17-12-13	1	database Access for applications Programs		TB-1 pg15
7	18-12-13	1	data base System Structure Storage Manager		TB-1 pg 16

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.
2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.
3. MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS UNIT - II	2013-14 Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.UMA DEVI
Designation: Assistant Professor
Department:: Computer Science and Engineering
The Schedule for the whole Course / Subject is::

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1	19-12-13	1	History of Data base Systems		TB-1 Pg 18
2	21-12-13	1	Data base design and ER diagrams		TB-2 pg 26
3	21-12-13	1	Beyond ER Design Entities, Attributes and Entity sets		TB-2 Pg 27
4	23-12-13	1	Relationships and Relationship sets		TB-2 pg 29
5	24-12-13	1	Additional features of ER Model		TB-2 Pg 32
6	30-12-13	1	Concept Design with the ER Model		TB-2 Pg 40
7	31-12-13	1	Conceptual Design for Large enterprises		TB-2 Pg 46

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.
2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.
MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS UNIT - III	2013-14 Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.UMA DEVI
Designation: Assistant Professor
Department:: Computer Science and Engineering

The Schedule for the whole Course / Subject is::

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1	1-1-14	1	Introduction to the Relational Model		TB-1 & 2 Pg 57
2	2-1-14	1	Integrity Constraint Over relations		TB-2 pg64
3	4-1-14	1	Enforcing Integrity constraints		TB-2 Pg 69
4	6-1-14	1	Querying relational data		TB-2 Pg73
5	9-1-14	1	Logical data base Design		TB-2 Pg 75
6	21-1-14	1	Introduction to Views		TB-2 Pg 87
7	22-1-14	1	Destroying /altering Tables and Views.		TB-2 Pg 91
8	23-1-14	1	Relational Algebra Selection and projection		TB-2 Pg 102
9	25-1-14	1	set operations renaming Joins Division		TB-2 Pg 104
10	27-1-14	1	Examples of Algebra overviews		TB-2 Pg 106
11	28-1-14	1	Relational calculus Tuple relational Calculus Domain relational calculus		TB-2 Pg 116
12	29-1-14	1	Expressive Power of Algebra and calculus		TB-2 Pg 124

Signature of Faculty

Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.
2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.
MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS **UNIT - IV**	2013-14 Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.UMA DEVI
Designation: Assistant Professor
Department:: Computer Science and Engineering

The Schedule for the whole Course / Subject is::

Sl. No.	Date	No. of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal...) Page No___ to ___
1	30-1-14	1	Form of Basic SQL Query		TB-1 Pg 132
2	1-2-14	1	Examples of Basic SQL Queries		TB-1 Pg 138
3	3-2-14	1	Introduction to Nested Queries		TB-1 Pg 141
4	6-2-14	1	Correlated Nested Queries Set		TB-1 Pg 147
5	10-2-14	1	Comparison Operators Aggregative Operators NULL values		TB-1 Pg 147
6	11-2-14	1	Comparison using Null values		TB-1 Pg 163
7	13-2-14	1	Logical connectivity's – AND, OR and NOT		TB-1 Pg 164
8	15-2-14	1	Impact on SQL Constructs Outer Joins		TB-1 Pg 165
9	17-2-14	1	Disallowing NULL values		TB-1 Pg 165
10	18-2-14	1	Complex Integrity Constraints in SQL Triggers and Active Data bases		TB-1 Pg 167

Signature of Faculty

Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.
2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.
MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS **UNIT - V**	2013-14 Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.UMA DEVI
Designation: Assistant Professor
Department:: Computer Science and Engineering

The Schedule for the whole Course / Subject is::

Sl. No.	Date	No. Of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1	19-2-14	1	Schema refinement		TB-1 & 2 Pg 606
2	20-2-14	1	Problems Caused by redundancy		TB-1 & 2 Pg 606
3	22-2-14	1	Decompositions		TB-1 & 2 Pg 608
4	24-2-14	1	Problem related to decomposition		TB-1 & 2 Pg 609
5	25-2-14	1	reasoning about FDS –		TB-1 & 2 Pg 611
6	25-2-14	1	FIRST, SECOND, THIRD Normal forms ,BCNF		TB-1 & 2 Pg 614-619
7	25-2-14	1	Lossless join Decomposition		TB-1 & 2 Pg 619
8	26-2-14	1	Dependency preserving Decomposition		TB-1 & 2 Pg 621
9	26-2-14	1	Schema refinement in Data base Design		TB-1 & 2 Pg 629
10	28-2-14	1	Multi valued Dependencies		TB-1 & 2 Pg 633
11	28-2-14	1	FOURTH Normal Form		TB-1 & 2 Pg 636

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.
2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.
MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS **UNIT - VI**	2013-14 Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.UMA DEVI
Designation: Assistant Professor
Department:: Computer Science and Engineering

The Schedule for the whole Course / Subject is::

Sl. No.	Date	No. Of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1	1-3-14	1	Transaction Concept		TB-1 Pg 565-67
2	3-3-14	1	Transaction State		TB-1 Pg 568-70
3	4-3-14	1	Implementation of Atomicity and Durability		TB-1 Pg 571-72
4	5-3-14	1	Concurrent Executions		TB-1 Pg 573-75
5	6-3-14	1	Serializability Recoverability		TB-1 Pg 576,582
6	8-3-14	1	Implementation of Isolation Testing for serializability		TB -1 Pg 583-89
7	10-3-14	1	Lock Based Protocols		TB-1 Pg 591-7
8	11-3-14	1	Timestamp Based Protocols		TB -1 Pg 604-6
9	12-3-14	1	Validation- Based Protocols		TB-1 Pg 607-8
10	13-3-14	1	Multiple Granularity		TB -1 Pg 609-13

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.
2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.
MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS **UNIT - VII**	2013-14 Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.UMA DEVI
Designation: Assistant Professor
Department:: Computer Science and Engineering

The Schedule for the whole Course / Subject is::

Sl. No.	Date	No. Of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1	17-3-14	1	Recovery and Atomicity		TB-1 Pg 644
2	18-3-14	1	Log Based Recovery		TB-1 Pg 645
3	19-3-14	1	Recovery with Concurrent Transactions		TB-1 Pg 657
4	20-3-14	1	Buffer Management		TB-2 Pg 660
5	21-3-14	1	Failure with loss of nonvolatile storage		TB-2 Pg 663
6	22-3-14	1	Advance Recovery systems Remote Backup systems		TB-2 Pg 664,672

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.
2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.
MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	SCHEDULE OF INSTRUCTIONS UNIT - VIII	2013-14 Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.UMA DEVI
Designation: Assistant Professor
Department:: Computer Science and Engineering

The Schedule for the whole Course / Subject is::

Sl. No.	Date	No. Of Periods	Topics / Sub - Topics	Objectives & Outcome Nos.	References (Text Book, Journal…) Page No___ to ___
1	24-3-14	1	Data on External Storage		TB-2 Pg 274
2	25-3-14	1	File Organization and Indexing		TB-2 Pg 275
3	26-3-14	1	Cluster Indexes		TB-2 Pg 276
4	27-3-14	1	Primary and Secondary Indexes		TB-2 Pg 277
5	28-3-14	1	Index data Structures		TB-2 Pg 278
6	29-3-14	1	Hash Based Indexing		TB-2 pg279
7	30-3-14	1	Tree base Indexing		TB2 Pg 280
8	31-3-14	1	Comparison of File Organizations		TB2 Pg 282
9	1-4-14	1	Indexes and Performance Tuning		TB 2 Pg 291
10	2-4-14	1	Intuitions for tree Indexes		TB2 Pg 339
11	3-4-15	1	Indexed Sequential Access Methods (ISAM)		TB2 Pg 341
12	4-4-14	1	B+ Trees: A Dynamic Index Structure		TB2 Pg 344

Signature of Faculty
Date

Note: 1. ENSURE THAT ALL TOPICS SPECIFIED IN THE COURSE ARE MENTIONED.

2. ADDITIONAL TOPICS COVERED, IF ANY, MAY ALSO BE SPECIFIED **BOLDLY**.

MENTION THE CORRESPONDING COURSE OBJECTIVE AND OUT COME NUMBERS AGAINST EACH TOPIC.

	COURSE COMPLETION STATUS	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.UMA DEVI

Subject:: Data Base Management systems Subject Code

Department:: Computer Science and Engineering

Actual Date of Completion & Remarks, if any

Units	**Remarks**	**Nos. of Objectives Achieved**
Unit 1	Define identify Reproduce	3
Unit 2	Label List Describe Defend	4
Unit 3	Match procedure Reproduce Distinguish	4
Unit 4	Select Estimate State Explain why/how	4
Unit 5	Extend Generalize	2
Unit 6	Generalize Give examples	2
Unit 7	Illustrate Infer	2
Unit 8	Summarize	2

Signature of Dean of School
Date:

Signature of Faculty
Date:

NOTE: AFTER THE COMPLETION OF EACH UNIT MENTION THE NUMBER OF OBJECTIVES ACHIEVED.

	TUTORIAL SHEETS - I	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.UMA DEVI
Designation: Assistant Professor
Department:: Computer Science and Engineering
The Schedule for the whole Course / Subject is::

Date:

This Tutorial corresponds to Unit Nos. **1&2** Time:

1.What are the five main functions of Database Administrator?

2. List four significant differences between a File processing system and a DBMS.

3. Explain the differences between Logical and Physical data independence

. . Explain about the following

i. Key constraints

ii. Specifying foreign key constraints in SQL with an example.

4 What is a view? Explain about views in detail.

5. What is a view? How does views support logical data independence and how queries on views are evaluated?

Please write the Questions / Problems / Exercises which you would like to give to the students and also mention the objectives to which these questions / Problems are related.

Signature of Dean of School
Date:

Signature of Faculty
Date:

	TUTORIAL SHEETS - II	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.UMA DEVI
Designation: Assistant Professor
Department:: Computer Science and Engineering
The Schedule for the whole Course / Subject is::

Date:

This Tutorial corresponds to Unit Nos. **3 , 4, 5** Time:

1. Write the following queries in SQL using Nested queries concept for following Schema.
   Sailors (sid: integer, sname: string, rating: integer, age: real)
   Boats (bid: integer, bname: string, color: string)
   Reserves (sid: integer, bid: integer, day: date)
   i. Find the names of sailors who have reserved both red and a green boat
   ii. Find the names of sailors who have reserved all boats.
   iii. Find the names of sailors who have not reserved red boat.
   iv. Find sailors whose rating is better than some sailor called raghu.
2. What are the differences between Integrity constraints and Triggers?
3. What is the motivation for 3NF?
4. Describe multi valued dependencies with examples.
5. Explain the problems caused by redundancy.

Please write the Questions / Problems / Exercises which you would like to give to the students and also mention the objectives to which these questions / Problems are related.

Signature of Dean of School
Date:

Signature of Faculty
Date:

	TUTORIAL SHEETS - II	2013-14
		Regulation: R11

FACULTY DETAILS:

Name of the Faculty:: Mrs.P.UMA DEVI
Designation: Assistant Professor
Department:: Computer Science and Engineering

Date:

This Tutorial corresponds to Unit Nos.,6,7,8 Time:

Q1.

Q2.

Q3.

Q4.

Q5.

Please write the Questions / Problems / Exercises which you would like to give to the students and also mention the objectives to which these questions / Problems are related.

Signature of Dean of School
Date:

Signature of Faculty
Date:

	ILLUSTRATIVE VERBS FOR STATING INSTRUCTIONAL OBJECTIVES	2013-14
		Regulation: R11

These verbs can also be used while framing questions for Continuous Assessment Examinations as well as for End – Semester (final) Examinations.

ILLUSTRATIVE VERBS FOR STATING **GENERAL OBJECTIVES**

Know Comprehend	Understand Apply	Analyze Design	Generate Evaluate

ILLUSTRATIVE VERBS FOR STATING **SPECIFIC OBJECTIVES:**

A. Cognitive Domain

1	2	3	4	5	6
Knowledge	**Comprehension Understanding**	**Application** of knowledge & Comprehension	**Analysis** of whole w.r.t. its constituents	**Synthesis** combination of ideas/constituents	**Evaluation** judgement
Define	Convert	Change	Breakdown	Categorize	Appraise
Identify	Defend	Compute	Differentiate	Combine	Compare
Label	Describe (a	Demonstrate	Discriminate	Compile	Conclude
List	procedure)	Deduce	Distinguish	Compose	Contrast
Match	Distinguish	Manipulate	Separate	Create	Criticize
Reproduce	Estimate	Modify	Subdivide	Devise	Justify
Select	Explain why/how	Predict		Design	Interpret
State	Extend	Prepare		Generate	Support
	Generalize	Relate		Organize	
	Give examples	Show		Plan	
	Illustrate	Solve		Rearrange	
	Infer			Reconstruct	
	Summarize			Reorganize	
				Revise	

B. Affective Domain		**C. Psychomotor Domain (skill development)**				
Adhere	Resolve	Bend	Dissect	Insert	Perform	Straighten
Assist	Select	Calibrate	Draw	Keep	Prepare	Strengthen
Attend	Serve	Compress	Extend	Elongate	Remove	Time
Change	Share	Conduct	Feed	Limit	Replace	Transfer
Develop		Connect	File	Manipulate	Report	Type
Help		Convert	Grow	Move preciselyReset		Weigh
Influence		Decrease	Handle	Operate	Run	
Initiate		Demonstrate	Increase	Paint	Set	

	LESSON PLAN **Unit-1**	2013-14 Regulation: R11

Name of the Faculty: Mrs.P.UMA DEVI

Subject DBMS Subject Code

Unit I

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
1	Data base System Applications,	50 min	TB1	PPT,charts
2	data base System VS file System ,	50 min	TB1	Chalk & board,PPT
3	View of Data – Data Abstraction , Instances and Schemas	50 min	TB1	Chalk & board
4	data Models , the ER Model ,Relational Model, Other Models ,	50 min	TB1	Chalk & board
6	Data base Users and Administrator Transaction Management	50 min	TB1	Chalk & board
7	Data base System Structure	50 min	TB1	Chalk & board

On completion of this lesson the student shall be able to(Outcomes)

1.Understands the concept reg DB

2.gets an idea where db is used

3.could differentiate between traditional file systems& DB

4 gets the understanding of the structure of the dbms

	ASSIGNMENT **Unit-I**	2013-14 Regulation: R11

Assignment / Questions

1.Define DBMS? List Database system Applications.

2. Explain Database Administrator's responsibilities.

3Explain the main functions of Database Administrator

.

Signature of Faculty

Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN **Unit-II**	2013-14 Regulation: R11

Name of the Faculty: Mrs.P.UMA DEVI

Subject DBMS Subject Code

Unit II

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
8	History of Data base Systems	50 min	TB2	Ppt Chalk & board
9	Data base design and ER diagrams	50 min	TB2	Chalk & board
10	Beyond ER Design Entities, Attributes and Entity sets	50 min	TB2	Charts,Chalk & board
11	Relationships and Relationship sets	50 min	TB2	Chalk & board
12	Additional features of ER Model	50 min	TB2	Chalk & board, charts
13	Concept Design with the ER Model	50 min	TB2	Chalk & board
14	Conceptual Design for Large enterprises	50 min	TB2	Chalk & board,charts

On completion of this lesson the student shall be able to

1.Identifies Entities ,attributes

2.establish the relationship among entity& attribute

3.identify different relations

	ASSIGNMENT **Unit-II**	2013-14
		Regulation: R11

Assignment / Questions

1. What is a weak entity set? Differentiate between entity set and strong entity set.

2. Define Aggregation. What is the problem associated with aggregation? Discuss the remedies.

3. What is a partial key? How is it represented in ER diagram? Give an example.

4. What is descriptive attribute? Explain .

5. Discuss the usage of ISA feature in ER diagrams.

Signature of Faculty

Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN **Unit-III**	2013-14
		Regulation: R11

Name of the Faculty: Mrs.P.UMA DEVI

Subject DBMS Subject Code

Unit III

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
15	Introduction to the Relational Model	50 min	TB2	Chalk& Board,
16	Integrity Constraint Over relations	50 min	TB2	Chalk& Board, excersise
17	Enforcing Integrity constraints	50 min	TB2	Chalk& Board, excersise
18	Querying relational data	50 min	TB2	Chalk& Board exercise
19	Logical data base Design	50 min	TB2	Chalk& Board exercise
20	Introduction to Views	50 min	TB2	Chalk& Board exercise
21	Destroying /altering Tables and Views.	50 min	TB2	Chalk& Board exercises
22	Relational Algebra Selection and projection	50 min	TB2	Chalk& Board exercise
23	set operations renaming Joins Division	50 min	TB2	Chalk& Board exercise
24	Examples of Algebra overviews	50 min	TB2	Chalk& Board exercise
25	Relational calculus Tuple relational Calculus Domain relational calculus	50 min	TB2	Chalk& Board exercise
26	Expressive Power of Algebra and calculus	50 min	TB2	Chalk& Board exercise

On completion of this lesson the student shall be able to(Outcomes)

1.Identify the computational back ground for relational algebra

2.Understands the selection projection renaming operations

3.understands the necessity of relational calculus

	ASSIGNMENT **Unit-III**	2013-14 Regulation: R11

Assignment / Questions

1. Define the divisible operation in terms of the basic Relational Algebra operations.
2. Describe a typical query that calls for division. Unlike join, the division operation is not given special treatment in database systems. Explain why.

3. Relational calculus is said to be a declarative language, in contrast to algebra, which is a procedural language. Explain the distinction.

4. Define all the variations of the join operation. Why is the join operation given special attention? Cannot we express every join operation in terms of Cross-product, Selection and Projection?

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Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN **Unit-IV**	2013-14 Regulation: R11

Name of the Faculty: Mrs.P.UMA DEVI

Subject DBMS Subject Code

Unit IV

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
26	Form of Basic SQL Query	50 min	TB2,Ref 2	PPT, Demonstration system
27	Examples of Basic SQL Queries	50 min	TB2	PPT Demonstration system
28	Introduction to Nested Queries	50 min	TB2	PPT Demonstration system
29	Correlated Nested Queries Set	50 min	TB2	PPT Demonstration on system
30	Comparison Operators Aggregative Operators NULL values	50 min	TB2	PPT Demonstration on system
31	Comparison using Null values	50 min	TB2	PPT Demonstration on system
32	Logical connectivity's – AND, OR and NOT	50 min	TB2	PPT Demonstration on system
33	Impact on SQL Constructs Outer Joins	50 min	TB2	PPT Demonstration on system
34	Disallowing NULL values	50 min	TB2	PPT Demonstration on system
35	Complex Integrity Constraints in SQL Triggers and Active Data bases	50 min	TB2	PPT Demonstration on system

On completion of this lesson the student shall be able to (Outcomes)

1.learns ddl,dml cmds

2.understands & learns the queries

3.Implementation of the queries in various real time applications

	ASSIGNMENT **Unit-IV**	2013-14 Regulation: R11

Assignment / Questions

1. Consider the following Schema:

Suppliers (sid: integer, sname: string, address: string)
Parts (pid: integer, pname: string, color: string)
Catalog (sid: integer, pid: integer, cost: real)

(a) The key fields are underlined. The catalog relation lists the price changes for parts by supplies. Write the following queries in SQL.

i. Find the pnames of parts for which there is some supplier.
ii. Find the snames of suppliers who supply every part.
iii. Find the pnames of parts supplied by raghu supplier and no one else.
iv. Find the sids of suppliers who supply only red part.

(b) The key fields are underlined. The catalog relation lists the price changes for parts by supplies. Write the following queries in SQL.

i. Find sids of suppliers who supply a red part and a green part.
ii. Find sids of suppliers who supply a red part or a green part.
iii. For every suppliers that only supplies green parts, print the name of the supplier.

2. Explain the following in SQL with examples.
(a) Nested Queries
(b) Correlated Queries
(c) Group by and Having Clauses
(d) Triggers

3. What is correlated nested query? Explain with an example.

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Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN **Unit-V**	2013-14 Regulation: R11

Name of the Faculty: Mrs.P.UMA DEVI

Subject DBMS Subject Code

Unit

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
36	Schema refinement	**50 min**	**TB1,TB2**	Chalk & board
37	Problems Caused by redundancy	**50 min**	**TB1,TB2**	Chalk & board
38	Decompositions	**50 min**	**TB1,TB2**	Chalk & board
39	Problem related to decomposition	**50 min**	**TB1,TB2**	Chalk & board
40	reasoning about FDS –	**50 min**	**TB1,TB2**	Chalk & board
41	FIRST, SECOND, THIRD Normal forms ,BCNF	**50 min**	**TB1,TB2**	Chalk & board
42	Lossless join Decomposition	**50 min**	**TB1,TB2**	Chalk & board
43	Dependency preserving Decomposition	**50 min**	**TB1,TB2**	Chalk & board
44	Schema refinement in Data base Design	**50 min**	**TB1,TB2**	Chalk & board
45	Multi valued Dependencies	**50 min**	**TB1,TB2**	Chalk & board
46	FOURTH Normal Form	**50 min**	**TB1,TB2**	Chalk & board

On completion of this lesson the student shall be able to (Outcomes)
1.understand the necessity of schema refinement

2.learn & understand about the normal forms

3.analyze & implementation of normal forms

	ASSIGNMENT **Unit-V**	2013-14
		Regulation: R11

Assignment / Questions

1. What is normalization?
2. Explain 1NF, 2NF, 3NF and BCNF with suitable example.
3. Explain non-loss decomposition and functional dependencies with suitable examples
4. Discuss how schema refinement an improve schemas obtained through ER design

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Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN **Unit-VI**	2013-14 Regulation: R11

Name of the Faculty: Mrs.P.UMA DEVI

Subject DBMS Subject Code

Unit

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
47	Transaction Concept	**50 min**	**TB1,TB2**	Chalk& board,
48	Transaction State	**50 min**	**TB1,TB2**	Chalk & board
49	Implementation of Atomicity and Durability	**50 min**	**TB1,TB2**	Chalk& board,
50	Concurrent Executions	**50 min**	**TB1,TB2**	Chalk & board
51	Serializability Recoverability	**50 min**	**TB1,TB2**	PPTs,Chalk & board,
52	Implementation of Isolation Testing for serializability	**50 min**	**TB1,TB2**	Chalk & board
53	Lock Based Protocols	**50 min**	**TB1,TB2**	PPTs,Chalk & board,
54	Timestamp Based Protocols	**50 min**	**TB1,TB2**	Chalk & board
55	Validation-	**50 min**	**TB1,TB2**	Chalk& board,
56	Based Protocols Multiple Granularity	**50 min**	**TB1,TB2**	Chalk & board

On completion of this lesson the student shall be able to (Outcomes)

1. Learn and Understand the ACID properties

2.Analyze about transaction mgmt

3.Understand the concept about transaction mgmt.

	ASSIGNMENT **Unit-VI**	2013-14
		Regulation: R11

Assignment / Questions

1. Discuss about Lock based protocols and validation based protocols in transaction management.

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2 .What is meant by transaction state? Discuss about Timestamp based protocols

3. What is a schedule? Explain the distinction between the terms serial schedule and Serializable schedule.

4. Discuss about the performance of locking.

5.What is a transaction? Explain ACID properties.

6. Discuss the transaction support in SQL.

Signature of Faculty

Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN Unit-VII	2013-14
		Regulation: R11

Name of the Faculty: Mrs.P.UMA DEVI

Subject DBMS Subject Code

Unit :VII

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
57	Recovery and Atomicity	50 min	TB1	Chalk& board, PPTs
58	Log Based Recovery	50 min	TB1	Charts, PPTs
59	Recovery with Concurrent Transactions	50 min	TB1	Chalk & board
60	Buffer Management	50 min	TB1	Chalk & board, charts
61	Failure with loss of nonvolatile storage	50 min	TB1	Chalk & board, charts
62	Advance Recovery systems Remote Backup systems	50 min	TB1	Chalk & board, charts

On completion of this lesson the student shall be able to

1.understands about the recovery management

2.learns about the buffer management

	ASSIGNMENT Unit-VII	2013-14
		Regulation: R11

Assignment / Questions

1. Briefly discuss ARIES algorithm. [15]

2. What is an index? Differentiate between sparse and dense indices.

3. Make a comparison of sorted file organization with heap file organization.

4. Explain dead lock prevention policies employed in databases.

5. Briefly discuss write ahead log protocol.

Signature of Faculty

Note: Mention for each question the relevant objectives and outcomes.

	LESSON PLAN **Unit-VIII**	2013-14 Regulation: R11

Name of the Faculty: Mrs.P.UMA DEVI

Subject DBMS Subject Code

Unit

INSTRUCTIONAL OBJECTIVES:

Session No	Topics to be covered	Time	Ref	Teaching Method
63	Data on External Storage	50 min	TB1,TB2	Chalk & board, PPTs
64	File Organization and Indexing	50 min	TB1,TB2	Charts, Chalk & board
65	Cluster Indexes	50 min	TB1,TB2	Chalk & board, PPTs
66	Primary and Secondary Indexes	50 min	TB1,TB2	Charts, Chalk & board
67	Index data Structures	50 min	TB2	Chalk & board, PPTs
68	Hash Based Indexing	50 min	TB2	Charts, Chalk & board
69	Tree base Indexing	50 min	TB2	Chalk & board, PPTs
70	Comparison of File Organizations	50 min	TB2	Charts, Chalk & board
71	Indexes and Performance Tuning	50 min	TB2	Chalk & board, PPTs
72	Intuitions for tree Indexes	50 min	TB2	Charts, Chalk & board
73	Indexed Sequential Access Methods (ISAM)	50 min	TB2	Chalk & board,PPTs
74	B+ Trees: A Dynamic Index Structure	50 min	TB2	Charts, Chalk & board

On completion of this lesson the student shall be able to

1.understands the storage & file organization

2. learns and understands the different methods for access of the files.

3.

4

	ASSIGNMENT **Unit-VIII**	2013-14
		Regulation: R11

Assignment / Questions

1.Explain about Indexed sequential access methods.

2.Explain with examples primary ,secondary indexes

3.Explain B^+ - trees.

Signature of Faculty

Note: Mention for each question the relevant objectives and outcomes.