

## Lesson Plan

**Name of Faculty** : Dr. Sanjay Dahiya, Assistant Professor of CSE  
**Discipline** : Computer Science and Engineering  
**Semester** : IV<sup>th</sup> (Even)  
**Subject** : Database Management Systems (CSE-202 L)  
**Lesson Plan Duration** : 15 weeks (from January/ February-2019 to April/ May-2019)  
**Work Load (Lecture/Practical) per week (in hours):** (3-L) + (2-T) hours

Week	Theory		Topic Covered Date and Remarks		
	Lecture- Day	Topic (Including Assignment/Test)	Date	HOD	Director- Principal
1 <sup>st</sup>	1	Overview of database and DBMS			
	2	File System Vs DBMS			
	3	Characteristics of Database approach			
	4	User of Database			
2 <sup>nd</sup>	5	Advantages and Disadvantages of DBMS over file processing systems			
	6	Responsibility of Database Administrator			
	7	Database System Concept and Architecture			
	8	Data Models (Network, Hierarchical & Relational Model)			
3 <sup>rd</sup>	9	Schemas and Instances , Database language			
	10	DBMS architecture, Three levels architecture of Database Systems			
	11	Various views of data and data Independence			
	12	ER Model, Entity Types, Attributes and Keys			
4 <sup>th</sup>	13	Relationships , Roles and Structural Constraints			
	14	ER Diagram and Examples			
	15	Reduction of E-R diagram into tables			
	16	Relational Model			
5 <sup>th</sup>	17	Relational Algebra & various operations			
	18	Relational Algebra & various operations			
	19	Relational and Tuple calculus			
	20	Relational and Tuple calculus			
6 <sup>th</sup>	21	Network, Hierarchical & Relational Model			
	22	Problems on Relational Algebra			
	23	Problems on Relational calculus			
	24	Problems on Design of ER models			
7 <sup>th</sup>	<b>1<sup>st</sup> Minor Test</b>				
8 <sup>th</sup>	25	Introduction to Query Languages (SQL)			
	26	Data Definition and Constraints			
	27	Insertion in SQL			
	28	Deletion and Update in SQL			
9 <sup>th</sup>	29	Queries in SQL			
	30	Relational Database Design			
	31	Functional dependencies : Full, Partial, Transitive			
	32	Introduction to Normalisation (Decomposition and Integrity Constraints )			
10 <sup>th</sup>	33	First and second Normal forms			
	34	Third Normal forms and BCNF			
	35	Fourth Normal forms			
	36	Problems on Normalisation			
11 <sup>th</sup>	37	DDBMS Design			
	38	Replication and Techniques			
	39	Replication Techniques			
	40	Problem Solution on Replication Techniques			
12 <sup>th</sup>	41	Introduction to Concurrency control techniques			
	42	ACID Properties of a transaction			
	43	Locking Techniques			
	44	Problem Solution on Locking Techniques			
13 <sup>th</sup>	45	Time Stamp Ordering			
	46	Multi Version Techniques			
	47	Deadlock and Necessary Conditions			
	48	Problems and Solutions			
14 <sup>th</sup>	<b>2<sup>nd</sup> Minor Test</b>				

15 <sup>th</sup>	49	Introduction to Recovery systems and Techniques			
	50	Recovery Techniques in Centralized DBMS			
	51	Recovery Techniques in Centralized DBMS			
	52	Problem Solution			

### Lesson Plan

**Name of Faculty** : Er. Arushi Bansal, Assistant Professor of CSE  
**Discipline** : Computer Science and Engineering  
**Semester** : 4<sup>th</sup>  
**Subject** : database management system lab(CSE-202P)  
**Lesson Plan Duration** : 15 weeks (from January-2019 to April-2019)  
**Work Load (Lecture/Practical) per week (in hours):** Practical-02 hours

Week	Theory/ Practical (Group-I/ II)		Topic Covered Date and Remarks		
	Practical Day	Topics/ Programs	Date	HOD	Director-Principal
1 <sup>st</sup>	1	Create a database			
2 <sup>nd</sup>	2	Alter the structure of an existing database			
3 <sup>rd</sup>	3	Add a record in database			
4 <sup>th</sup>	4	Delete a record from database			
5 <sup>th</sup>	5	Modify a record in database			
6 <sup>th</sup>	6	Generate queries			
7 <sup>th</sup>		Minor test 1 <sup>st</sup>			
8 <sup>th</sup>	7	Generate a report			
9 <sup>th</sup>	8	List all records in database in ascending order			
10 <sup>th</sup>	9	List all records in database in descending order			
11 <sup>th</sup>	10	Execute various set of operations such as union, subtraction			
12 <sup>th</sup>	11	Execute various set of operations such as intersection			
13 <sup>th</sup>	12	Execute of aggregate functions as sum, count, avg, max, min etc			
14 <sup>th</sup>		Minor test 2 <sup>nd</sup>			
15 <sup>th</sup>	13	Implement various outer join operations			

### Lesson Plan

**Name of Faculty** : Ms Bharti, Assistant Professor of CSE  
**Discipline** : Computer Science and Engineering  
**Semester** : 4<sup>th</sup>(cse)  
**Subject** : Computer architecture and organisation (CSE 210L)  
**Lesson Plan Duration** : 15 weeks (from January, 2019 to April, 2019)  
**Work Load (Lecture/Practical) per week (in hours):** Lectures-04hours, Practical-02 hours

Week	Theory		Topic Covered Date and Remarks		
	Lecture Day	Topic (Including Assignment/Test)	Date	HOD	Director-Principal
1 <sup>st</sup>	1	Basic Boolean algebra and logic gates			
	2	Combinational logic blocks			
	3	Adder subtractor and multiplexers			
	4	Sequential logic blocks			
2 <sup>nd</sup>	5	Flip flops,register,counter			
	6	Flynns classification			
	7	Multilevel viewpoint of a machine			
	8	Digital logic			
3 <sup>rd</sup>	9	Microarchitectures			
	10	Operating systems			
	11	Performance matrix			
	12	Cpu architecture types			
4 <sup>th</sup>	13	Computer registers,stack memory			
	14	Detailed data path of a typical cpu			
	15	Computer organisation concept			
	16	Stored program concept			
5 <sup>th</sup>	17	Instruction codes			
	18	Timing and control			
	19	Instruction cycles			
	20	Types of instructions			
6 <sup>th</sup>	21	Memory refrence ,register refrence			
	22	I/o refrence instructions			
	23	Accumulator logic			
	24	Control memoty			
7 <sup>th</sup>	-----Ist Minor Test-----				
8 <sup>th</sup>	25	Introduction to parallelism			
	26	Goals of parallelism and Amdhels law			
	27	Instruction level parallelism			
	28	Processor level parallelism			
9 <sup>th</sup>	29	Piplining and its features			
	30	Superscaling overview			
	31	Multiprocessor systems overview			
	32	Memory hirachy			
10 <sup>th</sup>	33	I/O gtechniques			
	34	Need of memory and examples			
	35	Cache memory amd main memory			
	36	Secondary memory			
11 <sup>th</sup>	37	Microprogrammed control			
	38	Address sequencing			
	39	Micro instructions			
	40	Microprogram sequencer			
12 <sup>th</sup>	41	Implementation of control unit			
	42	Instruction set architectures			
	43	Classification of processors			
	44	CISC and RISC comparison			
13 <sup>th</sup>	45	Stack organisation			
	46	Instruction formats			
	47	Addressing modes			
	48	Types of various modes			
14 <sup>th</sup>	-----2 <sup>nd</sup> Minor Test-----				
15 <sup>th</sup>	49	Memory parameters			
	50	Ram and rom organisation			
	51	Static and dynamic memory			
	52	DMA modes of transfer			

### Lesson Plan

**Name of Faculty** : Ms. Sonam Bajaj , Assistant Professor of CSE  
**Discipline** : Computer Science and Engineering  
**Semester** : 4th (even)  
**Subject** : Java Lab (CSE-208P)  
**Lesson Plan Duration** : 15 weeks (from Jan2019 to May 2019)  
**Work Load (Practical) per week (in hours):** Practical-02 hours

Week	Theory/ Practical (Group-I/ II)		Topic Covered Date and Remarks		
	Practical Day	Topics/ Programs	Date	HOD	Director-Principal
1 <sup>st</sup>	1	Basic concept of object oriented technology			
2 <sup>nd</sup>	2	Fundamental concept of java programming			
3 <sup>rd</sup>	3	Mathematical problems 1			
4 <sup>th</sup>	4	Mathematical problem 2			
5 <sup>th</sup>	5	Mathematical problem 3			
6 <sup>th</sup>	6	Mathematical problem 4			
7 <sup>th</sup>		<b>1<sup>st</sup> Minor Test</b>			
8 <sup>th</sup>	7	1 <sup>st</sup> viva voce			
9 <sup>th</sup>	8	Small java based applications 1			
10 <sup>th</sup>	9	Small java based application 2			
11 <sup>th</sup>	10	Problem into multiple parts			
12 <sup>th</sup>	11	Concept of multithreading			
13 <sup>th</sup>	12	Concept of exception handling			
14 <sup>th</sup>		<b>2<sup>nd</sup> Minor Test</b>			
15 <sup>th</sup>	13	2 <sup>nd</sup> viva voce			

## Lesson Plan

**Name of Faculty** : Sonam Bajaj, Assistant Professor of CSE  
**Discipline** : Computer Science and Engineering  
**Semester** : 4<sup>th</sup> (even)  
**Subject** : JAVA Programming (CSE-208L)  
**Lesson Plan Duration** : 15 weeks (from Jan to May-2019)

**Work Load (Lecture/Practical) per week (in hours):** Lectures-04hours

Week	Theory		Topic Covered Date and Remarks		
	Lecture Day	Topic (Including Assignment/Test)	Date	HOD	Director-Principal
1 <sup>st</sup>	1	Machine language			
	2	Assembly language			
	3	High level language			
	4	Object, method, classes			
2 <sup>nd</sup>	5	Instantiation , reuse			
	6	Method and message calls			
	7	Data type and instance variable			
3 <sup>rd</sup>	8	Abstraction , encapsulation			
	9	Inheritance and polymorphism			
	10	Creating and running program			
	11	Main method, comments and identifiers , their rules			
	12	Packages , classes and method			
4 <sup>th</sup>	13	Anatomy of java program			
	14	Java tokens			
	15	Java operators			
5 <sup>th</sup>	16	Java virtual machine			
	17	Control statements			
	18	Looping statements			
	19	Jumping statements			
6 <sup>th</sup>	20	Objects declaration , class declaration			
	21	User Defined method , visibility control			
	22	Constructor and its types			
	23	Constructor overloading , method overloading			
	24	Method overriding			
7 <sup>th</sup>		<b>1<sup>st</sup> Minor Test</b>			
8 <sup>th</sup>	25	Static member , abstract method and class			
	26	Inheritance , single inheritance			
	27	Multilevel inheritance , hybrid inheritance			
	28	Interfaces , packages			
9 <sup>th</sup>	29	Adding a class to package			
	30	GUI programming			
	31	Lines and rectangle			
10 <sup>th</sup>	32	Circles and eclipse			
	33	Java applets			
	34	Assignment 1			
	35	Creating a thread , extending a thread			
11 <sup>th</sup>	36	Run method			
	37	Stop and blocking a class			
	38	Life cycles of thread			
	39	Thread method			
12 <sup>th</sup>	40	Thread exception			
	41	Thread priority			
	42	Types of error			
	43	Run time error			
	44	Try , catch			
13 <sup>th</sup>	45	Multiple catch			
	46	Finally statements			
	47	Throwing user Defined exceptions			
	48	Byte stream class			
14 <sup>th</sup>		<b>2<sup>nd</sup> Minor Test</b>			
15 <sup>th</sup>	49	Character stream class			
	50	Creations of files.			
	51	Assignment 2 <sup>nd</sup>			
	52	Problem and solutions			