GATEWAY INSTITUTE OF ENGINEERING AND TECHNOLOGY,SONIPAT
LESSON PLAN

Name of Faculty: Ms. Sneha Raweri
Discipline:- B. Tech. (CSE)
Semester: 4th
Subjects: System Programming(CSE 206 B)
Lession Plan Duration: 15 Weeks (from January,2018 to April,2018)
Workload(Lecture/Practical) per week (in hours) : Lecture-03, Practicals -02 hours

Week	Theory		Practical	
	Lecture Day	Topic (including assignment/test)	Practical Day	Topic
1st	1st	Evolution of Components Systems Programming	1st	Introduction to UNIX
	2nd	Assemblers		
	3rd	Loaders, Linkers		
2nd	4th	Macros, Compilers	2nd	To study various Unix Commands
	5th	Software tools		
	6th	Text editors, Interpreters		
3rd	7th	Test	3rd	File Check & Viva
	8th	program generators		
	9th	Debug Monitors		
4th	10th	Programming environment.	4th	To study basic directories and file commands
	11th	Various phases of compiler lexical		
	12th	syntax and semantic analysis		
5th	13th	intermediate code generation	5th	Determine the commands for special characters
	14th	optimization techniques		
	15th	code generation		
6th	16th	Case study : LEX	6th	File Check & Viva
	17th	Case study : YACC		
	18th	Test		
7th	19th	Description of single pass assembler	7th	To study various options of list commands
	20th	Description of two pass assembler		
	21st	Macro language		
8th	22nd	macro instructions	8th	To study various permissions under UNIX
	23rd	macro instruction arguments		
	24th	Test		
9th	25th	conditional macro expansion	9th	File Check & Viva
	26th	defining macros		
	27th	macro calls		
10th	28th	Concept of linking	10th	Program of sum of two numbers using UNIX commands
	29th	different linking schemes		
	30th	concept of loading		
11th	31st	various loading schemes	11th	Program to check wheather given number is even or odd using UNIX commands
	32nd	macro-processor		
	33rd	Test		
12th	34th	features of macro	12th	File Check & Viva
	35th	facility		
	36th	macro		
13th	37th	instruction	13th	Program to check which of the given number is greater using UNIX commands.
	38th	Line editor		
	39th	full screen editor		
14th	40th	multi window editor	14th	To study various file access permission under UNIX
	41st	Test		
	42nd	Case study MS-Word,DOS Editor		
15th	43rd	vi editor,Debuggers	15th	File Check & Viva
	44th	Description of various debugging techniques		
	45th	Test		

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LESSON PLAN

Name of Faculty: Ms. Alisha Sikri
Discipline:- B. Tech. (CSE)
Semester: 4th
Subjects: Object Oriented Programming (CSE 204 B, CSE 224 B)
Lession Plan Duration: 15 Weeks (from January,2018 to April,2018)
Workload(Lecture/Practical) per week (in hours) : Lecture-03, Practicals -02 hours

Week	Lecture Day	Topic (including assignment/test)	Practical Day	Topic
1st	1st	C++ standard Library Preprocessor Directives	1st	Raising a number n to a power p is the same as multiplying n by itself p times. Write a function
	2nd	Illustrative Simple C++ Programs		called power ( ) that takes a double value for n and an int value for p, and returns the result as
	3rd	Header Files & Namespaces		double value Use a default argument of 2 for p. so that if this argument is omitted, the number
2nd	4th	Library Files, Concept of objects	2nd	A point on the two dimensional plane can be represented by two numbers: an X coordinate and a
	5th	Object Oriented Analysis & Object modeling techniques		Y coordinate. For example, (4,5) represents a point 4 units to the right of the origin along the X
	6th	Test		axis and 5 units up the Y axis. The sum of two points can be defined as a new point whose X
3rd	7th	Introduction to objects & Object Oriented Programming	3rd	File Check & Viva
	8th	Encapsulation		
	9th	Access Modifiers		
4th	10th	Controlling access to a class, method or variable	4th	Create the equivalent of a four function calculator. The program should request the user to enter a
	11th	Polymorphism: Overloading		number, an operator, and another number. It should then carry out the specified arithmeticaloperation: adding. subtracting, multiplying, or dividing the two numbers
	12th	Inheritance ,Overriding		
5th	13th	Abstract Classes	5th	Create two classes DM and DB which store the value of distances. DM stores distances in metres and centimeters and DB in feet and inches. Write a program that can read values for the class objects and add one object of DM with another object of DB.
	14th	Reusability		
	15th	Introduction, Structure Definitions		
6th	16th	Accessing Members of structures	6th	File Check & Viva
	17th	Class scope & accessing Members		
	18th	Test		
7th	19th	Controlling Access Function, Initializing Class Objects: Constructors	7th	Create a class rational which represents a numerical value by two double values- NUMERATOR & DENOMINATOR
	20th	Const(Constant),Object and Const Member Functions		
	21st	Friend Function & Friend classes, using the pointer		
8th	22nd	Dynamic memory Allocation with New & Delete	8th	Write a program that creates a binary file by reading the data for the students from the Terminal
	23rd	Static Class Members, Container classes & iterations		
	24th	Function Overloading		
9th	25th	Introduction, Fundamentals of Operator Overloading	9th	File Check & Viva
	26th	Restrictions on Operator Overloading		
	27th	Test		
10th	28th	Operator Functions as Class Members vs. Friend functions	10th	A hospital wants to create a database regarding its indoor patients. The information to store
	29th	Introduction,Inheritance		include Name of Patient Etc.
	30th	Casting Base class Pointers to Derived class pointers		
11th	31st	Using Member Functions	11th	Make a class Employee with a name & Salary. Use Inheritance.
	32nd	Overriding Base-class Members in a derived Class,Public,Protected		
	33rd	Using Constructors & Destructors in derived Classes		
12th	34th	composition v/s Inheritance	12th	File Check & Viva
	35th	Implicit Derived-Class To Base-Class Object Conversion,		
	36th	Abstract, Base classes & concrete Classes		
13th	37th	Virtual destrcutors,Polymorphism, New classes & dynamic binding	13th	Imagine a tollbooth with a class called toll Booth. The two data items of a type unsigned int to hold the total number of cars, and a type double to hold the total amount of money collected.
	38th	Function Templates, Overloading Template Functions		
	39th	Introduction, Basics of C++ Exception Handling:Try,Catch,rethrowing an exception		
14th	40th	Exception Specifications, Processing Unexpected Exceptions, Constructors	14th	To exhibit Exception Handling
	41st	Stream Output, Stream input, Unformatted I/O		
	42nd	Destructors & Exception		
15th	43rd	Handling, Exceptions & Inheritance	15th	File Check & Viva
	44th	Stream Manipulations,StreamformatStates, StreamErrorStates		
	45th	Test		

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LESSON PLAN

Name of Faculty: Ms. Taruna
Discipline:- B. Tech. (CSE)
Semester: 4th
Subjects: Database Management system (CSE 202 B, CSE 222 B)
Lession Plan Duration: 15 Weeks (from January,2018 to April,2018)
Workload(Lecture/Practical) per week (in hours) : Lecture-03, **Practical :** 2 hours

| Week | Theory | | Practical | |
	Lecture Day	Topic (including assignment/test)	Practical Day	Topic
1st	1st	DBMS an overview, Advantages of DBMS	1st	Introduction to SQL
	2nd	Network, Hierarchical and Relational Model		
	3rd	Levels of abstraction, Data Independence		
2nd	4th	Data Models, Instances and schemes	2nd	To study Basic SQL commands (create database
	5th	Data independence Structures of a DBMS		
	6th	Application Programmers & Data Base administra		
3rd	7th	Transaction Management	3rd	To study the viewing commands (select , updat
	8th	Entities, Attributes and Entity Sets		
	9th	Relation and Relationships sets		
4th	10th	Mapping and participation constraints	4th	To study the commands to modify the structure
	11th	Aggregation, Specialization and Generalization		
	12th	Test		
5th	13th	Introduction to relational model	5th	To study the commands that involve compound
	14th	Integrity constraints over relations		
	15th	Enforcing Data Integrity		
6th	16th	Integrity Constraints	6th	To study the aggregate functions (sum, count, r
	17th	Relational Data		
	18th	Logical Data Base Design		
7th	19th	Reduction of E-R Diagrams to relations	7th	To study the grouping commands (group by, or
	20th	Introduction to views		
	21st	Querying Relational Algebra and Relational Calcu		
8th	22nd	Operations on Relational Algebra	8th	To study the commands involving data constrai
	23rd	Operations on Relational Calculus, TRC, DRC		
	24th	Test		
9th	25th	Database Design	9th	To study the commands for aliasing and renam
	26th	Data Redundancy		
	27th	Introduction to Schema Refinement		
10th	28th	Functional Dependencies	10th	To study the commands for joins (cross join, in
	29th	Normal Forms-First , Second, Third, Boyce code		
	30th	Fourth and Multivalued Dependencies		
11th	31st	Basic SQL Queries	11th	To study the various set operations
	32nd	Nested Queries, Aggregate operator		
	33rd	Null Values		
12th	34th	Implementation of Relational Algebra operations	12th	To study the various scalar functions and string
	35th	Embedded SQL		
	36th	Test		
13th	37th	ACID Properties	13th	To study the commands for views
	38th	Transaction states		
	39th	Concurrency Control overview & problems		
14th	40th	Locks	14th	Study of Use of Group By and Having Clause
	41st	Locking Protocols		
	42nd	Deadlocks		
15th	43rd	Serializability	15th	Study of Aggregate Functions in SQL
	44th	Types of Failures, ARIES recovery technique		
	45th	Test		

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LESSON PLAN

Name of Faculty: Ms. Rachna

Discipline:- B. Tech. (CSE)

Semester: 4th

Subjects: COMPUTER ORGANIZATION AND ARCHITECTURE(CSE210 B)

Lession Plan Duration: 15 Weeks (from January,2018 to April,2018)

Workload(Lecture/Practical) per week (in hours) : Lecture-03

Week	Theory	
	Lecture Day	**Topic (including assignment/test)**
1st	1st	Classification of computers
	2nd	Based on Computation,based on generations,based on size & capability
	3rd	based on Flynn's criteria
2nd	4th	Multilevel viewpoint of a machine: digital logic
	5th	micro architecture, ISA,operating systems, high level language
	6th	Register Transfer language; Computer Buses
3rd	7th	test
	8th	Bus width, Bus clocking,bus arbitration, Bus examples
	9th	Computer Arithmetic ,Addition , subtraction,magnitude , signed 2's complement , Multiplication
4th	10th	CPU Architecture types
	11th	Instruction cycle(Fetch-Decode-Execute)
	12th	Instruction set based classification of processors
5th	13th	Test
	14th	Addressing modes
	15th	Operations in the instruction set
6th	16th	Arithmetic and Logical, Data Transfer
	17th	Control Flow; Instruction set formats
	18th	Input Output Interface , Asynchronous data transfer
7th	19th	Test
	20th	Serial Vs parallel data transmission;Modes of data transfer
	21st	Programmed I/O, Interrupt driven, Direct Memory access (DMA)
8th	22nd	Memory device characteristics
	23rd	Memory hierarchy
	24th	Main memory Design
9th	25th	Semiconductor RAM
	26th	Semiconductor ROM memory Design ,
	27th	Match logic
10th	28th	Locality of reference principle
	29th	Temporal & Spatial
	30th	Cache mapping
11th	31st	Direct , associative , set associative
	32nd	Cache writing policies
	33rd	Copy-Back , Writethrough
12th	34th	Test
	35th	Virtual Memory
	36th	Address space , memory space
13th	37th	Address mapping using pages
	38th	Metrics for Testing
	39th	Test
14th	40th	Page replacement
	41st	Control unit design methods
	42nd	hardwired & microprogrammed
15th	43rd	Control Memory
	44th	Address Sequencing
	45th	Micro instructions

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Name of Faculty: Ms Surbhi gupta
Discipline:- CSE
Semester: 4th
Subjects: Environmental Engineering (GES-201B)
Lession Plan Duration: 15 Weeks (from January,2018 to April,2018)
Workload(Lecture/Practical) per week (in hours) : Lecture-03

Week	Theory		
	Lecture Day	Topic (including assignment/test)	
1st	1st	**Definition, scope , the multidisciplinary nature of environmental studies**	
	2nd	**Importance of environmental education**	
	3rd	**Need for public awareness**	
2nd	4th	**Natural resources,Renewable and non-renewable resources:.**	
	5th	**A) forest resources: use and over-exploitation: deforestation, timber exploitation, mining, dams and their effects**	
	6th	**B) water resources: use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems**	
3rd	7th	**C)mineral resources: use and exploitation, environmental effects of extracting and using mineral resources**	
	8th	**D) food resources: world food problems, changes, caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide**	
	9th	**Problems, water logging, salinity**	
4th	10th	**use of alternate energy sources**	
	11th	**F) land resources: land as a resource, land degradation, man induced landslides, soil erosion and desertification**	
	12th	**Role of an individual in Conservation of natural resources, Equitable use of resources for sustainable lifestyles**	
5th	13th	**Test**	
	14th	**Ecosystems:Concept of an ecosystem,Structure and function of an ecosystem.,producers, consumers and decomposers**	
	15th	**• Energy flow in the ecosystem,Ecological succession.,food chains, food webs and ecological pyramids**	
6th	16th	**Introduction, types, characteristic features, structure and function of the following eco-system: a) forest ecosystem.B) Grassland ecosystem.C) Desert ecosystem.D) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).**	
	17th	**Test**	
	18th	**Biodiversity and its conservations:Introduction – definition: genetic, species and ecosystem diversity, Biogeographically classification of India.,value of biodiversity: consumptive use,**	
7th	19th	**• Biodiversity at global, national and local levels.India as a mega-diversity nation.,hot-spots of biodiversity**	
	20th	**Threats to biodiversity: habitat loss, poaching of wildlife,man-wildlife conflicts.,Endangered and endemic species of India.**	
	21st	**Environmental pollution:Definition, causes, effects and control, measures of:A) air pollutionB) water pollution**	
8th	22nd	**C) soil pollutionD) marine pollutionE) noise pollutionF) thermal pollutionG) nuclear hazards • solid waste management: causes effectsand control measures of urban and industrial wastes**	
	23rd	**TEST**	
	24th	**• Role of an individual in prevention of pollution.• Pollution case studies.• Disaster management: floods, earthquake, cyclone andlandslides.**	
9th	25th	**Social issues and the environment:A) from unsustainable to sustainable developmentB) urban problems related to energy**	
	26th	**C) water conservation, rain water harvesting, watershed management**	
	27th	**D) resettlement and rehabilitation of people; its problems and concerns**	
10th	28th	**Test**	
	29th	**E) environmental ethics: issues and possible solutions**	
	30th	**F) climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies**	
11th	31st	**G) wasteland reclamationH) consumerism and waste products**	
	32nd	**I) Environment protection act,J) Air (prevention and control of pollution) act**	
	33rd	**K) Water (prevention and control of pollution) act**	
12th	34th	**TEST**	
	35th	**L) wildlife protection act**	
	36th	**M) forest conservation act**	
13th	37th	**N) issues involved in enforcement of environmental legislation**	
	38th	**O) public awareness**	
	39th	**Test**	
14th	40th	**Human population and the environment,Population growth, variation among nations,Population explosion – family welfare programme**	
	41st	**Environment and human health.Human rights.**	
	42nd	**Value education.Hiv/ aids**	
15th	43rd	**Woman and child welfare.**	
	44th	**Role of information technology in environment and human health**	
	45th	**TEST**	