

Lesson Plan

Name of Faculty :Er. Priyanka Gulati

Discipline : B.Tech Computer Science Department

Semester :6th

Subject :Essential of Information Technology

Lesson Plan Duration: 15 Weeks (From January, 2018 to April, 2018)

Work Load (Lecture/week (in hours) : Lectures - 03

Week	Theory		Practical	
	Lecture Day	Topic (Including Assignment/Test)	Practical Day	Topic
1 st	1st	Computational problem and its classification - Logic and its types	1 st	Implement a Flowchart to calculate sum of two numbers
	2nd	Introduction to algorithms flowchart		
	3rd	Searching algorithms: linear search, binary search		
	4th	sorting algorithms: insertion, quick, merge, selection sort		
2 nd	5th	Introduction and classification to Data Structures	2nd	Write a program to find the largest of 3 numbers
	6th	Basic Data Structures: array		
	7th	stack, and queue, Identifiers, variables, data types		
	8th	Unit 2: Operators, control structures, type conversion, Casting, arrays,		
3 rd	9th	Strings, Object Oriented Concepts fundamentals: class & object	3rd	Write a program to find the Fibonacci Series
	10th	Class and Objects Concept.		
	11th	Instance variables & methods		
	12th	Access specifiers, reference variables		

4 th	13th	Parameter passing techniques: Constructors, this reference	4th	Implement a flowchart to find the area of circle
	14th	Static, and command line arguments		
	15th	Introduction to UML: Use case diagrams – Class diagrams		
	16th	Unit 3:Relationships: aggregation		
5 th	17th	Association	5th	Write a program to flowchart to factorial of given number
	18th	Inheritance, types of inheritance		
	19th	Inheritance and its Program		
6 th	20th	Static Polymorphism: method overloading	6th	Write a program to calculate the simple interest
	21th	Constructor overloading		
	22nd	Dynamic polymorphism: method overriding		
7 th	23rd	Abstract	7th	Write a program to implement static function in java
	24th	Interface		
	25th	Test 4:Constructor		
	26th	Introduction to packages Industry Coding Standards and Best Practices		
8 th	27th	code tuning & optimization	8th	Write a program to implement method overloading
	28th	clean code & refactoring Data Models		
	29th	Unit 4:RDBMS- data processing		
	30th	the database technology		
9 th	31st	RDBMS	9th	Write a program to create table in databases
	32nd	Data models		
	33rd	ER modelling concept, Notations		
	33th	Converting ER diagram into relational schema ER Diagram Examples		

	34th	Logical database design, DDL statements		
10 th		normalization (1NF, 2NF and 3NF)	10th	Write a program to implement SQL commands
		SQL: DDL statements		
		DCL statements		
		Joins, Sub queries		
11 th		SQL Queries		
		Views, Database design Issues		
		SQL fine-tuning		
		Logical Data base Design		