

## LESSON PLAN

Name of faculty : Asha Kumari  
 Discipline : Computer Engineering  
 Subject : Object oriented Programming using Java (4<sup>TH</sup> Sem)  
 Lesson plan duration : 15 weeks

Work load(lecture/practical) per week : Lectures-03,practicals-06

Week	Theory		Practical	
	Lecture Day	Topic (including assignment/test)	Practical day	Topic
1 <sup>st</sup>	1 <sup>st</sup>	Unit 1: Fundamentals of Object oriented programming – procedure-oriented programming vs. object oriented programming (OOP)	1 <sup>st</sup>	Print Hello in Java
	2 <sup>nd</sup>	Object oriented programming concepts – Classes, object, object reference, Abstraction		
	3 <sup>rd</sup>	Encapsulation, inheritance, polymorphism	2 <sup>nd</sup>	Simple Programs in Java.
2 <sup>nd</sup>	4 <sup>th</sup>	Introduction of eclipse (IDE) for developing programs in Java	3 <sup>rd</sup>	Practical 1
	5 <sup>th</sup>	Test of Unit 1		
	6 <sup>th</sup>	Unit 2: Review of constructs of C used in JAVA: variables types and type declarations, datatypes	4 <sup>th</sup>	Practice of practical
3 <sup>rd</sup>	7 <sup>th</sup>	Increment and decrement operators, Relational and logical operators	5 <sup>th</sup>	Practical 2
	8 <sup>th</sup>	if else then clause , Conditional expressions	6 <sup>th</sup>	Practice of practical
	9 <sup>th</sup>	input using scanner class and output statement		
4 <sup>th</sup>	10 <sup>th</sup>	Loops	7 <sup>th</sup>	Practical 3
	11 <sup>th</sup>	Switch case		
	12 <sup>th</sup>	Arrays	8 <sup>th</sup>	Practice of practical
5 <sup>th</sup>	13 <sup>th</sup>	Methods	9 <sup>th</sup>	Practical 4
	14 <sup>th</sup>	Test of Unit 2		
	15 <sup>th</sup>	Unit 3: Creation of objects, accessing class members	10 <sup>th</sup>	Practice of practical
6 <sup>th</sup>	16 <sup>th</sup>	Private Vs Public Vs Protected Vs Default	11 <sup>th</sup>	Practical 5
	17 <sup>th</sup>	Constructors		
	18 <sup>th</sup>	Object & Object Reference	12 <sup>th</sup>	Practice of practical

7th	19 <sup>th</sup>	Test of Unit 3	13 <sup>th</sup>	Practical 6
	20 <sup>th</sup>	Unit 4: Definition of inheritance, Types		
	21 <sup>st</sup>	Protected data, private data, public data	14 <sup>th</sup>	Practice of practical
8th	22 <sup>nd</sup>	constructor chaining, order of invocation	15 <sup>th</sup>	Practical 7
	23 <sup>rd</sup>	order of invocation	16 <sup>th</sup>	Practice of practical
	24 <sup>th</sup>	Single inheritance		
9th	25 <sup>th</sup>	Multilevel inheritance	17 <sup>th</sup>	Practical 8
	26 <sup>th</sup>	Hierarchical inheritance		
	27 <sup>th</sup>	Hybrid inheritance	18 <sup>th</sup>	Practice of practical
10th	28 <sup>th</sup>	Test of Unit 4	19 <sup>th</sup>	Practical 9
	29 <sup>th</sup>	Unit 5: Method & constructor overloading		
	30 <sup>th</sup>	Method overriding	20 <sup>th</sup>	Practice of practical
11th	31 <sup>st</sup>	up-casting, down-casting	21 <sup>st</sup>	Practical 10
	32 <sup>nd</sup>	Test of Unit 5		
	33 <sup>rd</sup>	Unit 6: Key points of abstract class	22 <sup>nd</sup>	Practice of practical
12th	34 <sup>th</sup>	Key points of Interface	23 <sup>rd</sup>	Practice of practical
	35 <sup>th</sup>	Implementation of multiple inheritance through interface		
	36 <sup>th</sup>	Revision	24 <sup>th</sup>	Practice of practical
13th	37 <sup>th</sup>	Test of Unit 6	25 <sup>th</sup>	Practice of practical
	38 <sup>th</sup>	Unit 7: Definition of Exception handling		
	39 <sup>th</sup>	implementation of keywords like try and catch, finally	26 <sup>th</sup>	Practice of practical
14th	40 <sup>th</sup>	implementation of keywords throw & throws	27 <sup>th</sup>	Revision of practical.
	41 <sup>st</sup>	importance of exception handling in practical implementation of live projects		
	42 <sup>nd</sup>	Importance of exception handling in practical implementation of live projects	28 <sup>th</sup>	Revision of practical.
15th	43 <sup>rd</sup>	Test of Unit 7	29 <sup>th</sup>	Internal Viva
	44 <sup>th</sup>	Revision and problems		
	45 <sup>th</sup>	Test of whole syllabus	30 <sup>th</sup>	Internal Viva