PDEA'S

MamasahebMohol College, PaudRoad ,Pune – 38

Computer Science Department

Course Name:SEM-I, PAPER I –Paradigm of programming languages (4 Credits, 48 lectures)

Course Outcomes: (CO-CSUT111)

Learning Outcomes	**Teaching learning strategies /Activities**	**Assessment tasks/tools**
CO111.1 Students will start developing new principles of Program.	Lecture method, Problem solving sessions, Peer Learning.	Assignment Test Exam
CO111.2 Students can learn new programming language quickly.	Practical method	Practical Assignment Test Exam
CO111.3 They learn small programs in different programming languages.	Lecture method , Practical method	Test Exam

Course Specific Outcome:

Unit No	**Unit Title**	**Contents**	**Course Specific outcomes - CSO**
1	**Introduction**	The Art of Language Design Why Study Programming Languages? Compilation and Interpretation Programming Environments	To understand reasons behind learning programming languages. To get the knowledge of what makes language successful. To understand Programming Environments.
2	**Names, Scopes, and Bindings**	The Notion of Binding Time Scope Rules The meaning of Names in a Scope The Binding of Referencing	understand Object Lifetime and Storage Management. get The meaning of Names in a Scope. understand The Binding of

		Environments Macro Expansion	Referencing Environments
3	**Control Flow**	Expression Evaluation Structured and Unstructured Flow Iteration Recursion	get knowledge of Structured and Unstructured Flow. understand Selection using Short-Circuited Conditions, Case/Switch Statements understand the concept of Recursion.
4	**Data Types**	Primitive Data Types NumericTypes User defined Ordinal types Implementation of pointer and referencetypes	get knowledge of various data types. get Solution to dangling pointer problem understand concept of Heap management
5	**Subroutines and Control Abstraction**	Fundamentals of Subprograms Local Referencing Environments Parameter-Passing Methods The General Semantics of Calls and Returns Implementing Subprograms with Stack-Dynamic Local Variables	get knowledge various Parameter-Passing Methods . Implementing Subprograms with Stack-Dynamic Local Variables Implementing Dynamic Scoping.
6	**Data Abstraction and Object Orientation**	Object-Oriented Programming Initialization and Finalization Dynamic Method Binding Multiple Inheritance	learn Encapsulation and Inheritance. understandDynamic Method Binding . understand Multiple Inheritance.
7	**Concurrency**	Introduction Introduction to Subprogram-level concurrency Semaphores Java Threads	understand the concept of Semaphores. get knowledge of Message Passing. understand how to create Java Threads.
8	**Functional Programming in Scala**	Strings Numbers Control Structures Classes and Properties Methods Objects Functional Programming	To understand programming in scalai.eList,array,map,set etc.

		List, Array, Map, Set	