Panipat Institute of Engineering & Technology
Department of CSE-AI&DS
LESSON PLAN

Subject: Programming Language   **Subject code:** PC-CS-AIDS- 209
Session: Aug.- Dec 2023-24   **Semester:** 3rd

S No	Topic	CO Covered	Assignment No.	Teaching Methodology
1	A brief history, Characteristics of a good programming language	CO1		White Board
2	Programming language translator's compiler and interpreters	CO1		White Board
3	Elementary data types – data objects, variable and constants	CO1		White Board
4	data types. Specification and implementation of elementary data types, Declarations type checking and type conversions	CO1	Assignment-1	White Board
5	Assignment and initialization, Numeric data type enumerations, Booleans and characters.	CO1		
6	Syntax and semantics Introduction, General problem of describing syntax	CO1		White Board
7	Formal method of describing syntax, attribute grammar dynamic semantics	CO1		White Board
8	Structured data objects and data types, specification, and implementation of structured data types	CO2		Smart Board, White Board
9	Declaration and type checking of data structure, vector and arrays	CO2		Smart Board, White Board
10	records Character strings, variable size data structures, Union, pointer	CO2	Assignment-2	Smart Board, White Board
11	programmer defined data objects, sets, files.	CO2		Smart Board, White Board
12	Evolution of data type concept abstraction, encapsulation and information hiding	CO2		Smart Board, White Board
13	Subprograms, type definitions, abstract data types	CO2		PPT
14	Over loaded subprograms, generic subprograms.	CO2		Smart Board, White Board
15	Implicit and explicit sequence control	CO3		Smart Board, White Board
16	sequence control within expressions	CO3		Smart Board, White Board
17	sequence control within statement	CO3		Smart Board, White Board
18	Subprogram sequence control: simple call return	CO3	Assignment-3	Smart Board, White Board
19	Recursive subprograms, Exception and exception handlers,	CO3		Test
20	Co-routines, sequence control	CO3		Smart Board, White Board
21	Concurrency – subprogram level concurrency, synchronization through semaphores,	CO3		Smart Board, White Board
22	monitors and message passing.	CO3		Smart Board, White Board
23	**Data Control:** Names and referencing environment,	CO3		Smart Board, White Board
24	static and dynamic scope	CO3		Smart Board, White Board
25	block structure, Local data and local referencing environment	CO3		Smart Board, White Board

26	Shared data: dynamic and static scope			Presentation
27	Parameter and parameter transmission schemes.	CO3		Smart Board, White Board
28	Storage Management and Programming Languages:	CO4		Smart Board, White Board
29	Major run time elements requiring storage	CO4		Smart Board, White Board
30	programmer and system-controlled storage management and phases	CO4	Assignment-4	Smart Board, White Board
31	Static storage management	CO4		White Board
32	Stack based storage management	CO4		Smart Board, White Board
33	Heap storage management, variable and fixed size elements	CO4		Smart Board, White Board
34	Introduction to procedural, non-procedural	CO4		Smart Board, White Board
35	structured, logical functional and object-oriented programming language	CO4		Smart Board, White Board
36	Comparison of C and C++ programming languages	CO4		PPT