

# PNS SCHOOL OF ENGG. & TECH., MARSHAGHAI

## DEPARTMENT OF COMPUTER SCIENCE ENGINEERING LESSON PLAN

<b>BRANCH :</b> Electrical Engineering	<b>SEMESTER :</b> 3rd	<b>NAME OF THE TEACHING FACULTY :</b>  <b>MR. BALARAM DAS</b>
<b>SUBJECT:</b> Programming for Problem Solving - Lab Manual	<b>NO. OF DAYS PER WEEK CLASS ALLOTTED :</b>  <b>02</b>	<b>SEMESTER FROM DATE: 14.07.2025 TO 15.11.2025</b>
<b>WEEK</b>	<b>CLASS DAY</b>	<b>LAB EXPERIMENTS</b>
1 <sup>ST</sup>	1 <sup>st</sup>	Unit I: C Programming 1. Introduction to C Programming • History and Importance of C
	2 <sup>nd</sup>	2. Constants, Variables, and Data Types
2 <sup>ND</sup>	1 <sup>st</sup>	3. Managing Input and Output Operations
	2 <sup>nd</sup>	4. Operators and Expressions
3 <sup>RD</sup>	1 <sup>st</sup>	5. Decision Making and Branching
	2 <sup>nd</sup>	6. Decision Making and Looping
4 <sup>TH</sup>	1 <sup>st</sup>	7. Arrays
	2 <sup>nd</sup>	1. Display college name 20 times using loop.
5 <sup>TH</sup>	1 <sup>st</sup>	2. Add and display all even numbers from 1 to 100.
	2 <sup>nd</sup>	3. Find the smallest/largest element in an array.
6 <sup>TH</sup>	1 <sup>st</sup>	4. Sort array elements in ascending/descending order.
	2 <sup>nd</sup>	5. Input and display a 3x3 matrix.
7 <sup>TH</sup>	1 <sup>st</sup>	6. Perform addition and subtraction of two 2D matrices.
	2 <sup>nd</sup>	7. Multiply two 2D matrices.
8 <sup>TH</sup>	1 <sup>st</sup>	8. Demonstrate string functions: strlen(), strcpy(), strcat(), strcmp().
	2 <sup>nd</sup>	9. Calculate area of a circle using functions.
9 <sup>TH</sup>	1 <sup>st</sup>	10. Calculate factorial using recursion.
	2 <sup>nd</sup>	11. Demonstrate: Call by value, Call by reference, Pointer arithmetic.
10 <sup>TH</sup>	1 <sup>st</sup>	record writing and checking
	2 <sup>nd</sup>	Unit II: Introduction to MATLAB Programming 1. Basics of MATLAB Programming
11 <sup>TH</sup>	1 <sup>st</sup>	2. Vectors and Matrices
	2 <sup>nd</sup>	3. Control Flow and Functions
12 <sup>TH</sup>	1 <sup>st</sup>	4. Plotting and Visualization
	2 <sup>nd</sup>	5. Introduction to Simulink
13 <sup>th</sup>	1 <sup>st</sup>	record writing and checking

13 <sup>th</sup>	2 <sup>nd</sup>	1. Perform basic matrix operations and array manipulations.
14 <sup>th</sup>	1 <sup>st</sup>	2. Find Eigenvalues and Eigenvectors of a matrix.
	2 <sup>nd</sup>	3. Write a MATLAB script to plot mathematical functions.
15 <sup>th</sup>	1 <sup>st</sup>	4. Implement a Simulink model for a simple system.
	2 <sup>nd</sup>	record writing and checking

**SIGNATURE OF H.O.D**

  
**SIGNATURE OF LECTURER**