

**Course Outcomes & CO-PO-PSO Mapping and Justification**

Subject	Data Structures Lab	17CSL38
COURSE OUTCOMES		
CO No.	On completion of this course, students will be able to:	RBT Level / Cognitive Level
17CSL38.1	Develop a program using linear data structures such as array and circular queue.	L3 Apply
17CSL38.2	Develop a program for basic operations of stack and its applications.	L3 Apply
17CSL38.3	Construct a program using non-linear data structures and their applications such as trees and graphs.	L3 Apply
17CSL38.4	Construct a program using linear data structures for linked lists.	L3 Apply

CO-PO-PSO MAPPING

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
17CSL38.1	3	-	-	-	-	-	-	-	-	-	-	1	1	-	-
17CSL38.2	3	2	1	1	-	-	-	-	-	-	-	1	1	-	-
17CSL38.3	3	2	1	1	-	-	-	-	-	-	-	1	1	-	-
17CSL38.4	1	2	1	1	-	-	-	-	-	-	-	1	1	-	-
17CSL38	2.5	2.0	1.0	1.0	-	-	-	-	-	-	-	1.0	1.0	-	-

CO-PO-PSO JUSTIFICATION

CO No.	PO/PSO	CL	Justification
17CSL38.1	PO1	3	Apply the knowledge strongly using linear data structures such as arrays and circular queue and design the program for various operations performed on arrays and circular queue.

	PO12	1	Slightly mapped as information acquired from the linear data structures provides lifelong learning in the context of technical change.
	PSO1	1	Slightly mapped as students can use the concepts of linear data structures to analyze and design the program for arrays and queue.
17CSL38.2	PO1	3	Mapped strongly as students apply the knowledge of basic operations of stack and its applications.
	PO2	2	Moderately mapped as students analyze the concepts of stack and the basic operations such as push, pop and demonstrate the overflow and underflow situation on stack.
	PO3	1	Slightly mapped as students apply the knowledge of stack operations and its applications such as conversion of infix expression to postfix expression, evaluation of suffix expression and solving tower of Hanoi using n disks.
	PO4	1	Slightly mapped as students analyze and design the program for stack and their applications.
	PO12	1	Slightly mapped as information acquired from the linear concepts of stack provides lifelong learning in the context of technical change.
	PSO1	1	Slightly mapped as students can use the concepts of stack to design the program for various applications of stack.
	17CSL38.3	PO1	3
PO2		2	Moderately mapped as students apply the knowledge to design a program for operations performed on trees such as create, traverse and search.
PO3		1	Slightly mapped as students apply the knowledge to design a program for operations performed on graph using DFS and BFS method.
PO4		1	Slightly mapped as students analyze and design the program for various operations on trees and graphs.
PO12		1	Slightly mapped as information acquired from the concepts of non-linear data structures provides lifelong learning in the context of technical change.
PSO1		1	Slightly mapped as students can use the concepts of non-linear data structures to design program for their applications.
	PO1	1	Apply the knowledge slightly using linear data structures for linked lists.
	PO2	2	Moderately mapped as students apply the knowledge of linear data structures for different types of linked list such as SSL and DLL.

17CSL38.4	PO3	1	Slightly mapped as students design the program for various operations performed on singly linked list and doubly linked list such as create, insert, delete and display at the front and end of the list.
	PO4	1	Slightly mapped as students analyze and design the program for various operations of SLL and DLL.
	PO12	1	Slightly mapped as information acquired from the concepts linear data structures for linked lists provides lifelong learning in the context of technical change.
	PSO1	1	Slightly mapped as students can use the concepts of linear data structures to design the program for linked lists.

Prepared by:

(Mrs.A. Rosline Mary/Ms. Ashwini M)

Approved by:

(H.o.D)