JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE	**JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE** **JECRC Campus, Shri Ram Ki Nangal, Via-Vatika,Jaipur**

Department of Information Technology
MTT-1 Examination
Slow Learner Assignment
Academic Year-2021-22(Odd Semester)

Course	**:**	**B. Tech.**
Semester/ Section	**:**	III Semester
Subject & Subject Code	**:**	Data Structures and Algorithms (DSA) Subject Code: 3IT4-05

Course Outcomes	
CO1	Able to impart the basic concepts of stack data structure and its applications.
CO2	Able to understand basic concepts of queue and linked lists.

Q. No.	**CO**	**Questions**
1.	**CO1**	Define data structures. List and explain the different operations that can be carried on arrays.
2.	**CO1**	Demonstrate the applications of stack?
3.	**CO1**	Convert following postfix expression to prefix expression with the help of stack. Show each step. A B + C * D E – F G + * -
4.	**CO1**	"Tower Of Hanoi problem can be solved using recursion". Justify your answer.
5.	**CO1**	Explain different operations that can be performed on stack and show them using diagrammatic representations
1.	**CO2**	Define queue. Explain different operations that can be performed on queue.
2.	**CO2**	Compare stack and queue with example.
3.	**CO2**	Explain Priority Queues.
4.	**CO2**	Elaborate advantages of DeQueue. Write algorithm for insertion from front in DeQueue.
5.	**CO2**	List the different types of queue. State the limitation of ordinary queue. Explain how you overcome the limitation by specifying diagrammatic representation.