

 <b>NIET</b> Greater Noida GET FUTURE READY Estd 2001 AN AUTONOMOUS INSTITUTE	<b>ASSIGNMENT 2</b> <b>DATA STRUCTURE</b> <b>(ACSE-0301)</b>	SESSION-2022-23
		SEM-3 <sup>rd</sup> (ODD)

Assignment Given Date: 29/10/2022 Assignment Submission Date: 04/11/2022	Maximum Points: 50
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**Note: Write solution of each question in clear handwriting.**

Q. No.	Question Statement	Pts	CO	BLOOM'S KNOWLEDGE LEVEL
1	Briefly discuss overflow and underflow situation in Queue.	2.5	1	K2
2	Construct an algorithm to insert an element in a Queue.	2.5	1	K2
3	Convert the below infix expression into postfix using stack. $A+(B*C-(D/E^F)*G)*H$	5	1	K2
4	Write a program using Python to implement Fibonacci series.	5	1	K4
5	Distinguish Array from Linked-List. List out the advantage and disadvantage of linked-list.	5	1	K3
6	Compare Iteration and Recursion? Write a recursive algorithm of Tower of Hanoi with $n=20$ disks. Also find out the complexity of it	10	1	K4
7	Give two examples where the concept of stack is used in computers. Evaluate the given postfix expression and find the solution. $4\ 3\ 2\ *\ +\ 12\ 6\ /\ +\ 3\ -$	10	1	K4
8	What do you understand by polish notation? Convert the given expression into prefix expression using polish notation. $(A+B)*C-D+F$	10	1	K4