



**SOMAIYA**  
VIDYAVIHAR UNIVERSITY

<b>Semester: July 2023 – Oct 2023</b>		
<b>Maximum Marks: 30</b>	<b>Examination: In-Semester Examination</b>	<b>Duration : 1:15 hrs</b>
<b>Programme code: 01</b>	<b>Class: SY</b>	<b>Semester: III (SVU 2020)</b>
<b>Programme: B. Tech. in Computer Engineering</b>		
<b>Name of the Constituent College:</b> <b>K. J. Somaiya College of Engineering</b>		<b>Name of the department:</b> <b>COMP/IT</b>
<b>Course Code: 116U01C302</b>	<b>Name of the Course: Data Structures</b>	

Question No.		Max. Marks	CO Mapped	BT Level
Q1	A. Define ADT. Discuss any two advantages of ADT.  B. Suggest and justify appropriate data structures for following :- 1. 'Continue watching' list in OTT app platform 2. Entry and exit from a stadium that has two gates both permitting entry and exit	10	CO1	UN, AN
Q2	Convert the expression given below into its corresponding postfix expression and then evaluate it using stack operation. $10^3 + (2+6) * (12-6) / ((7-5) + 10)$	10	CO2	AP
Q3	Discuss the algorithms/pseudocode to implement following operations circular singly linked list operations. Consider all scenarios: 1. Insertion at beginning 2. Deletion after a given node  OR  Write Algorithm/Pseudo code for Priority Queue Insertion Operation and deletion operation. (List must be sorted on priority of element with the highest priority element at the front)	10	CO2	UN, AP