Roll No: | | | | | | | | | | | |

GAIN MORE KNOWLEDGE
REACH GREATER HEIGHTS

PRESIDENCY UNIVERSITY

Presidency University Act, 2013 of the Karnataka Act No. 41 of 2013 | Established under Section 2(f) of UGC Act, 1956
Approved by AICTE, New Delhi | Approved By BCI
Bengaluru

Mid Term Examinations - October 2026

Date: 09/10/2026 **Time:** 02:00 PM - 03:30 PM

Course Code: CSS2253 **Course Name:** Data Structures

Semester: Third Semester **Max. Marks:** 50 **Weightage:** 50%

CO - Levels	CO1	CO2
Marks	92	88

PART A: Answer Following Questions. 10 M

Q.N.	Questions	M	CO	BT
1	What is a Data Structure? Mention its types.	2	CO1	BT1
2	What is an Array? Mention any two characteristics of an array.	2	CO1	BT2
3	What are the advantages of Linked List over arrays?	2	CO2	BT1
4	What are the basic operations performed on a singly linked list?	2	CO2	BT1
5	Illustrate the difference between linear linked list and circular linked list?	2	CO1	BT2

PART B : Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
6	Explain Stack and its operations. Describe stack implementation using an array.	10	CO1	BT3
7	Explain Queue and its operations. Describe queue implementation using an array.	10	CO1	BT3

PART C: Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
8	Write the procedure to convert the infix expression to postfix expression and convert the expression A – (B / C + (D % E * F) / G) * H to postfix form using stack.	10	CO1	BT3
9	Write the steps involved in evaluating the postfix expression and evaluate the given postfix expression using stack 9 3 4 * 8 + 4 / -	10	CO1	BT3

PART D: Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT
10	Describe the different insertion operations performed on a singly linked list with suitable algorithms and examples.	10	CO2	BT3
11	Describe the different deletion operations performed on a singly linked list with suitable algorithms and examples.	10	CO2	BT3

PART E: Answer Any 1 Following Questions. 10 M

Q.N.	Questions	M	CO	BT

12	Explain Circular Linked List with its representation, operations and applications.	10	CO2	BT3
13	Explain recursion, recursive definition and the process of recursion with a suitable example.	10	CO2	BT3