



DTE Code: EN4139

Samridhi Sarwanik Charitable Trust's  
**JHULELAL INSTITUTE OF TECHNOLOGY**  
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 Vision: To emerge as the best Computer Science & Engineering Department through  
 Quality Education, Industry alliance & Collaborative Research



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**Continuous Assessment Examination - I**  
**Session: 2024-25 [Odd-24]**

Branch: CSE

Course Name: Data Structure and Program Design

Date of Examination: 12/8/2024

Time: 1.5 hrs

Semester: 3

Course Code: CSPC202T

Max. Marks: 30 Marks

Instructions to candidate:

- a) All questions carry marks as indicated  
 b) Assume suitable data wherever necessary.

1.A	What is Algorithm? List the characteristics of algorithm. Explain the listed characteristics with the help of Linear search Algorithm.	(BL-1,2 ) (CO-1 )	6M
1.B	Develop a program to implement Binary Search.	(BL 3 ) (CO1)	5M
OR			
2.A	Explain Asymptotic Notations in detail	(BL 2 ) (CO-1 )	5M
2.B	Develop a program to implement Selection Sort.	(BL 3 ) (CO-1)	5M
3.A	Develop a Menu driven program in C to insert element, delete element and display stacks.	(BL 3 ) (CO2)	6M
3.B	Convert Following Infix Operation to its equivalent postfix form using stacks- $A+B/C/D^E * F * G-H$	(BL 3 ) (CO2)	6M
OR			
4.A	Explain with example the concept of Insertion & Deletion in Linear Queues.	(BL 5 ) (CO-2 )	6M
4.B	Explain- a) Circular Queue b) Priority Queue	(BL 2 ) (CO-2 )	6M

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