



भारतीय सूचना प्रौद्योगिकी संस्थान भागलपुर
INDIAN INSTITUTE OF INFORMATION TECHNOLOGY BHAGALPUR
(An Institute of National Importance under Act of Parliament)

Department of Computer Science and Engineering

Branch: B. Tech (CSE/MNC)
Course Name: Data Structure
Maximum Time: 2 hours

Semester: 2nd
Course Code: CS116
Date: 25th Jan, 2025

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1. Implement the Doubly circular linked list (DCLL) using structure, where each node is dynamically allocated from the user side. Further perform the various operations on DCLL such as:
- Traversing the entire linked list and print the data elements of DCLL.
 - Reverse the elements of DCLL.
 - Perform insertion operation at the beginning, at the end, at middle, at the given specific position, and after the given position.
 - Perform deletion operation at the beginning, at the end, at middle, at the given specific position, and after the given position
 - Sort the elements of the linked list in ascending and descending order.
 - Determine the 2nd largest and 2nd smallest elements that is present in DCLL.