Silicon Institute of Technology, Bhubaneswar

B. Tech. 2nd Semester, Section – B

DSA Lab Assignment: #6 (Single Linked List & Dynamic Memory Allocation)

Date: 16 – 05 - 2022

Name of the Student:

Registration Number:

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1. Write a menu driven program in C to implement a Single Linked List using Dynamic Memory Allocation and apply various operations on it through separate functions as below:
   a) Create a single linked list
   b) Display the list of elements
   c) Insert a node at the beginning of the list
   d) Insert a node at the end of the list
   e) Insert a node at a given position in the list
   f) Insert a node after a given node
   g) Delete the first node
   h) Delete the last node
   i) Delete a node at a given position
   j) Delete a node after a given node
   k) Search an element in the list
   l) Sort the elements of the list in ascending order of their values
   m) Reverse the whole list
   n) Merge one single linked list with another single linked list to form a larger single linked list. (Hints: Create the first list, create the second list, sort the elements of the first list, sort the elements of the second list, then merge the two lists to form a larger single linked list.)

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