Chandigarh College of Engineering and Technology, (Degree Wing) Chandigarh
Department of Computer Science and Engineering
CS-301: Data Structures Assignment: 04 Date: 06.08.2024

| S. No. | **Note:** Start answer of a fresh question from fresh page only. Direct answer to a question will not be entertained. | Marks | course outcome (CO) |
|---|---|---|---|
| 1. | Discuss whether the syntax of the each of the following statements is valid or invalid.<br>(i) start->next = ptr1->next;<br>(ii) start->next = *(ptr2->next);<br>(iii) *start = ptr2;<br>(iv) ptr2=ptr1->next->info;<br>(v) ptr1->info = ptr2->info;<br>(vi) ptr2 = ptr2->next->next; | | CO1 |
| 2. | Write one statement to do each of the following:-<br>(i) Make **start** point to the node containing 30.<br>(ii) Make **ptr2** point to the last node in the list<br>(iii) Make **start** point to an empty list. | | |
| 3. | Suppose we have following list of months: January, February, March, April, May, June, July, August, September, October, November, and December. Create a linked structure to sort months in their alphabetical order. | | |
| 4. | Write an algorithm that removes the first element of a linked list and adds it to the end of the list without changing any value in information field. | | |
| 5. | Write a program which creates a header linked list and allow the following operation on the list.<br>(a) Delete an information<br>(b) Search a given information<br>(c) Traverse the list | | |