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| **PLEASE ANSWER ALL QUESTIONS.** | **Total 20 Marks** |

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| **QUESTION 1**  Write a C program that uses a linked list to store integers. Now write a function that searches for a value in the list and returns the index of . If does not exist in the list then the function will return -1.  **Input Description:**  The input set contains three lines of input.  The first line of input is an integer . The next line contains space separated integers denoting the elements of the list. The last line of input is the integer .  **Output Description:**  Output should be one line denoting the index of in the list. If is not present in the list, (without quotes) should be displayed.  **Sample Input:**  5  10 40 8 50 45  50  **Expected Output:**  3 | 8 marks |
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| **QUESTION 2**  Write a program in C to copy the elements of one array into another array using pointer.  **Input Description:**  The input set contains two lines of input.  The first line of input is an integer . The next line contains space separated integers denoting the elements of the list.  **Sample Input:**  5  10 40 8 50 45  **Expected Output:**  The elements stored in the first array are:  10 40 8 50 45  The elements copied into the second array are:  10 40 8 50 45 | 4 marks |
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| **QUESTION 3**  Write a C program that takes an grid as input and then calculates the range of each row. . Afterwards, it displays the maximum of the.  **Input Description:**  The first line of input is contains two integers . The next lines contain space separated integers denoting the elements of the row.  **Sample Input:**  3 2  10 40  8 50  45 20  **Expected Output:**  The range of Row 1: 30  The range of Row 2: 42  The range of Row 3: 25  Row 2 has the largest range with 42. | 4 marks |
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| **QUESTION 4**  Write a C program that finds the first repeating integer in a list and returns the index of it. If no such elements exist then it will return (without quotes).  **Input Description:**  The input set contains two lines of input.  The first line of input is an integer . The next line contains space separated integers denoting the elements of the list.  **Output Description:**  Output should be one line denoting the index of the first repeated integer in the list. If no such element is present in the list, (without quotes) should be displayed.  **Sample Input:**  6  10 40 8 50 40 20  **Expected Output:**  4 | 4 marks |
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| **\*\*END OF QUESTIONS\*\*** | |