**Academic Tasks (22232)**



**Academic Task Number: 1**

**Course code:** **CAP770** **Course title: Advanced Data Structures**

**Date of allotment:** **22-Feburary-2023**  **Date of submission:** **22-Feburary 2023**

**Max Marks: 50 Section: D2217/D2221- G1**

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| **Question Number** | **Question Statement** | **Course Outcome** | **Bloom’s level** | **Marks per Question** |
| Q1  (ODD) | There is one train scheduled from Delhi to Mumbai with 5 coaches. Reserved for 120 passengers with the capacity of 35,30,45,10 respectively. Now 35 new passengers booked the train then how the railway will accommodate these new passengers on a first come first serve basis.  Constraint: No new passengers are allowed in existing coaches.  Input:- 35 as new passengers  Output:- New coach at correct position to accommodate new passengers | CO1,C02 | L3: Apply | 25 |
| Q2  (EVEN) | Suppose you are traveling in a bus where you can move in forward direction only. You want a seat so you are moving towards the last position to find a seat. Once you reach at last you found there is no seat so now you have to move in backward and print the all seats intake to indicate that there is no space for you.  Constraint:- One way list  Input:- Bus with current intake  Output:- seats intake while moving backward direction. | CO1,CO2 | L3: Apply | 25 |
| Viva |  | CO1,CO2 | L1:Remeber  L2:  Understand | 25 |