

Name:- Ganesh Shinde Sub:- AD SA

Roll no:- A-10

Sign:- Rash

ID:- TU4F1920002

Date:- 14-10-21

55

Q2 B

A.)

Item	weight	Value
1	3	12
2	4	40
3	5	25
4	7	42

0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0
0	0	0	12	12	12	12	52	12	12	12
0	0	0	12	40	40	40	52	52	52	52
0	0	0	12	40	40	40	52	52	65	65
0	0	0	12	40	40	40	52	52	65	65

So the maximum value we get is by using item 2 and 3 and profit is 65

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Sign:- Ganesh

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Q3B)

- A. The largest common subsequence problem is the problem of finding the largest subsequence common to all sequence in a set of sequence, provided that the element of the subsequence are not required to occupy commutative position within original sequence.

		o	a	e	d	f	h	r
o	o	0	0	0	0	0	0	0
a	a	0	↖ 1	← 1	← 1	← 1	← 1	← 1
b	b	0	↑ 1	← 1	← 1	← 1	← 1	← 1
c	c	0	↑ 1	← 1	← 1	← 1	← 1	← 1
d	d	0	↑ 1	← 1	↖ 2	← 2	← 2	← 2
h	h	0	↑ 1	← 1	↑ 2	← 2	↖ 3	← 3
e	e	0	↑ 1	← 2	← 2	← 2	↖ 3	↑ 3

The max length will be 3
a d h

∴ LCS is adh with the length of 3.