CSE221-Final

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Sec! 07



englos

mat 170 hum 101 dev103

1. 1 2 3 4 5 6 7 8 9 10 11 12

Phyo91 CSE110

Day 1: eco 201, Physon, humbor, dev 103 Day 2: eng 201, mat 2 20

Day 2, Day Consolderation,

2 442 = 6

Final Question: A Q-)1 b-)1 C+2 d=3 e> 5 4+8 2713 h>21 an 111110 111111 2113 Mro 012 d:37 110 fd he gab

(a) Chegg 171110000101010 [Pfrom 3]

Pourt B Question 2

For 14 => NO

Explanation: The output = 9+4+9+1+1

wherear,

Optimal volution= 4+4+3+3

Fon , 6 >> NO

Emplanation? The output = 47177 Optimal nolution = 3+3

For 10 7 No

The output = 9441111 Optimal solution= 443+3

For 100: Yes

The output = 254 Optimal notation = 254

Yor, Because, the output = Optimal moluton

Part P	3 -	D\$1
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To solve we can use Brute Force algorithm.

111 A naive recourse implementation of O/1 knappack problem & it network the maximum value knappack capacity W

def knapnack(W, wt, val,n):

if n==0 or w==0.

netwon D

if (w+[n-1]>w);

neturn knappack(W, wt, vol, n-3)

elne;

neturn knapsock (W.wt, Val, n-1)

Meturn max (val [n-] + knaprack

(W-wtDn-I) val, n-1)

val, n-1), knaprack (W, wt valna) Val=[7,10,7,20,13] # i+emo wt = [6,3,3,7,7] # weights W=7 # Orong at most 7 n = len(val)print (11 St mosemum capacity in 7 the onwer = " knoprack (W, wt, vol, n)) W1=7+3 # mereare knoppack by3 Pount (199 maximum Capacity in 10 the onpower=1, knop back(W1, wt, val,n))

Output:

) If maximum capacity in 7 the answer = 20

→ If maximum capacity in 10 the annuer = 30