Spreing 2020 Anal Brom

Course Code: CSE 2208 Course Title: Algorithms Lab

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Ans. to the Q. No. 2

" Live Try 1 = This sie

knapsack (int w int w[] int v[], int n) int

1

int i, wt;

int K[n+1] [W+1];

for (i=0; i<=n; i++)

for (wt = 0; wt <= w; wt ++)

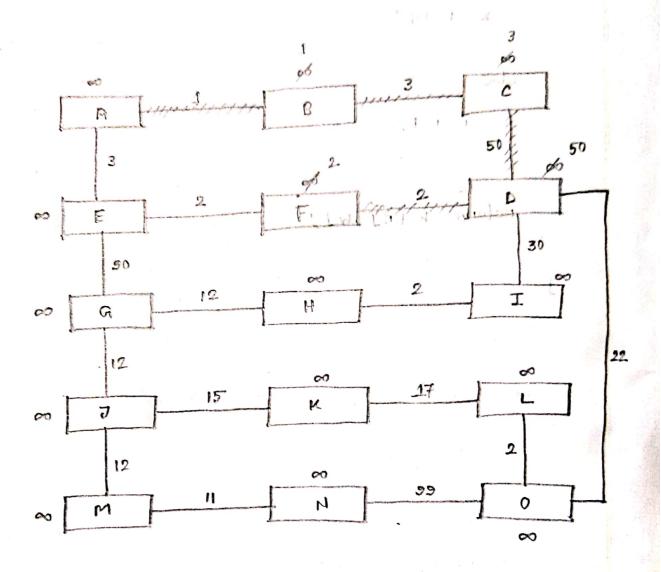
if (i==0 || w| ==0)!

k[i][wt] = 0;

```
else if (wli-1] <= wt)
charge little rephilosome had
      if (v[i-1] + x[i-1] [w+-w[i-1]] > x[i-1] [wi])
12 Harry: K[i][w] = V [i-1], + K U-17 [w+ - w [i-1]];
          else
              K[i] [wt] = K[i-]] [wt];
                   Par to the 6 Ma 2
         3
         else (n thi Llv (ni Llw thi H thi) House pond to
                                       it i toi
                              thing finds to
     7
                           to (1=6, 15 0) itt)
     int i=n, K=W;
     if (r[ik] = v[i-] k]) > to o lo) in
         cout << ith Hem; in 110 = i) }i
                         Listerd = C:
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K= K-Wi; else, i=i-1; return K [n] [w]; Englyica Coince Phasither. 7 = ((1,4), (6,6), (50), (6,1) } 21 of the total friends accommind to 12





Applying Arim's Algorithm, $T = \{ (A,B), (B,C), (S,D), (D,F) \}$

Cost of Minimum Sponning Tree: 1+3+50+2 = 56.

Ans. to the a.No. 1

. (a) D is chiefpers

In this case we go for greedy approach.

where a is the monther of your stations. Initially, tank is full. now calculate how many next coming gas station it can pass.

Assume gas stations locations are 50, 150, 250, 300, 350, 500 miles.

Now, herce initially full tank can pass 1st 4 stations (50, 150, 250, 300) but it con't neach 350. So, we have to fill it at station 350. How again how many stations it can pass from herce, so it can't reach 650. So again we need to full tank at 600.

And like this keep going with we neach goal. Hime complexity is O(n).

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250 500 miles.

Now there indirty that took can pure 1st of stations of the control of the state of

In Sith it of station 350. How agen how many

250 So you we need to talk took of 600.