```
--CODE=>

#include <iostream>
using namespace std;

int KSack(int c, int wt[], int p[], int n) {
    int m[n+1][c+1];


    for(int i = 0; i <= n; i++) {
        for(int w = 0; w <= c; w++) {
            if(i == 0 || w == 0) {
                m[i][w] = 0;
            }
            else if(wt[i-1] <= w) {
                m[i][w] = max(m[i-1][w], p[i-1] + m[i-1][w - wt[i-1]]);
            }
            else {
                m[i][w] = m[i-1][w];
            }
        }
    }


    cout << "\n    Max Weight\n";
    cout<<"pi Wi";
    for(int w = 0; w <= c; w++) {
        cout <<"  "<< w ;
    }
    cout << "\n";


    for(int i = 0; i <= n; i++) {
        if(i == 0){
            cout << "     ";
            cout << "0  ";
            }
        else{
            cout<< p[i-1]<<" ";
            cout << wt[i-1]<<"  ";

            cout << i << " ";
        }
        for(int w = 0; w <= c; w++) {

            if(m[i][w] < 10) cout << " ";
            cout << m[i][w] << " ";
        }
        cout << "\n";
    }

    return m[n][c];
}

int main() {
    int n, c;
    int wt[20], p[20];

    cout << "\nEnter the number of Items: ";
    cin >> n;
    cout << "\nEnter Weights of Items: ";
    for(int i = 0; i < n; i++) {
        cin >> wt[i];
    }

    cout << "\nEnter Profits of Items: ";
```

```
    for(int i = 0; i < n; i++) {
        cin >> p[i];
    }

    cout << "\nEnter Capacity of KnapSack: ";
    cin >> c;
    int MaxProfit = KSack(c, wt, p, n);
    cout << "\nMaximum Profit is: " << MaxProfit << endl;

    return 0;
}


--OUTPUT=>

Enter the number of Items: 3

Enter Weights of Items: 4
6
8

Enter Profits of Items: 10
12
15

Enter Capacity of KnapSack: 10

    Max Weight
pi Wi    0  1  2  3  4  5  6  7  8  9  10
      0  0  0  0  0  0  0  0  0  0  0  0
10 4  1  0  0  0  0 10 10 10 10 10 10 10
12 6  2  0  0  0  0 10 10 12 12 12 12 22
15 8  3  0  0  0  0 10 10 12 12 15 15 22

Maximum Profit is: 22
```